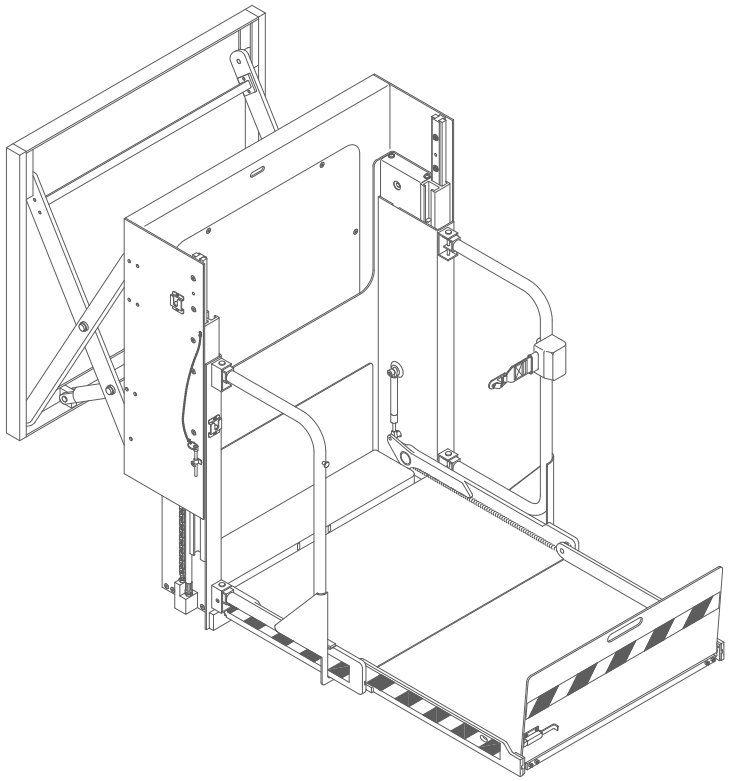
Ricon®
A Wabtec subsidiary

BAYLIFT®
DOT – PUBLIC USE



SERVICE MANUAL

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32DBLE04.C.1

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This Ricon service manual is for use by qualified service technicians, and is not intended for use by non-professionals (do-it-yourselfers). The manual provides essential instructions and reference information, which supports qualified technicians in the correct installation and maintenance of Ricon products.

Qualified service technicians have the training and knowledge to perform maintenance work properly and safely. For the location of a service technician in your area, call Ricon Product Support at 1-800-322-2884.

“DOT – Public Use Lift” verifies that this platform lift meets the public use lift requirements of FMVSS no. 403. This lift may be installed on all vehicles appropriate for the size and weight of the lift, but must be installed on buses, school buses, and multi-purpose passenger vehicles other than motor homes with a gross vehicle weight rating (GVWR) that exceeds 10,000 lbs (4,536 kgs).

Customer Name:_____
Installing Dealer:_____
Date Installed:_____
Serial Number:_____

REVISION RECORD

REV	PAGES	DESCRIPTION OF CHANGE	ECO
32DBLE02.C.1	Cvr	Update to logo.	6663
	1-1	Update to Address.	
	1-2	Update to Warranty verbiage.	
	2-3	Update to Section 2 verbiage.	
	4-1-4-27	Update to Spare Parts	

CHAPTER **PAGE**

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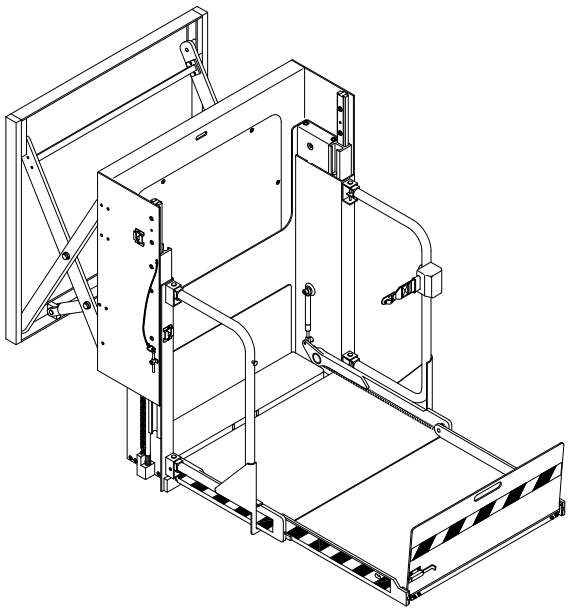
I. INTRODUCTION

The RICON BayLift® Public Use wheelchair lift is intended to provide wheelchair access to public vehicles including buses, school buses, large multi-purpose passenger vehicles, and is DOT compliant. For proper operation, it is imperative that the lift operator be thoroughly familiar with the major components of the unit, the controls and their functions, operation of the unit, and the safety and warning features.

This lift is for the physically challenged only and must be operated by trained personnel. The mechanical linkages provide smooth movement to the platform, which has a rated load capacity of 600 pounds (273 kilograms). Use of this lift for any other purpose is hazardous.

NOTE: The lift is not to be used for lifting cargo or freight. To do so might overload the mechanism, making the system unsafe for passengers, and will instantly void the warranty.

Five hydraulic cylinders are employed to move the lift components. Two cylinders are mounted within the scissors assembly to extend and retract the platform assembly. A third cylinder raises and lowers the inner barrier.



The remaining two cylinders raise and lower the platform assembly. The movement of these cylinders is multiplied by a chain lift connected between the intermediate frame (rear portion of platform assembly) and the platform itself. As the cylinders lift the intermediate frame the chain lift doubles the movement of the platform assembly.

The lift contains an electro-hydraulic pump with a built-in manual backup pump. If the lift loses electrical power, it can be raised or lowered manually. The cylinders are controlled by solenoid valves that are operated manually if there is an electrical failure.

Platform movement is controlled with buttons on the hand held pendant. By using the buttons, the lift is extracted from the vehicles storage compartment and lowered to the ground level. The passenger boards the large non-skid platform and the operator uses the buttons to raise the platform to vehicles floor level. After the passenger departs, the platform is raised and retracted back into the vehicle. A similar procedure is used to exit.

This manual contains installation instructions, maintenance and repair instructions; a troubleshooting guide, and parts and diagram lists. It is important to user safety that the lift is operated by trained personnel. Once the lift is installed, it is very important that the lift be properly maintained by following the Ricon recommended maintenance and inspection instructions provided.

A. RICON PRODUCT SUPPORT

If you have questions about this manual, or additional copies are needed, please contact Ricon Product Support at one of the following locations:

Ricon Corporation
1135 Aviation Place
San Fernando, CA 91340 ..... (818) 267-3000
Outside (818) Area Code ..... (800) 322-2884
Website ..... www.riconcorp.com

Vapor Ricon Europe Ltd.
Meadow Lane
Loughborough, Leicestershire 0044 (9) 1509 635 920
LE 1HS United Kingdom
Website ..... www.riconuk.com

B. RICON BAYLIFT LIMITED WARRANTY

RICON CORPORATION
BAYLIFT® PUBLIC WHEELCHAIR LIFT
TWO-YEAR LIMITED WARRANTY

Ricon Corporation (Ricon) warrants to the original purchaser of this product that Ricon will repair or replace, at its option, any part that fails due to defective material or workmanship as follows:

- Repair or replace parts for a period of two (2) years from the date of lift purchase.
- Labor costs for specified parts replaced under this warranty for a period of two (2) years from the date of lift purchase. A Ricon rate schedule determines parts covered and labor allowed.

If you need to return a product: Return this product to Ricon, following the Ricon RMA procedure. Please give as much advance notice as possible, and allow a reasonable amount of time for repair.

This warranty does not cover: Malfunction or damage to product parts caused by accident, misuse, lack of proper maintenance, neglect, improper adjustment, modification, alteration, the mechanical condition of the vehicle, road hazards, overloading, failure to follow operating instructions, or acts of nature (i.e., weather, lightning, flood).

Note: Ricon recommends that this product be inspected by a Ricon dealer or qualified service technician at least once every six months, or sooner if necessary. Required maintenance should be performed at that time.

⚠ WARNING

THIS PRODUCT HAS BEEN DESIGNED AND MANUFACTURED TO EXACT SPECIFICATIONS. ANY MODIFICATION OF THIS PRODUCT IN ANY RESPECT CAN BE DANGEROUS.

This warranty is void if:

- The product has been installed or maintained by someone other than a Ricon dealer or qualified service technician.
- The product has been modified or altered in any respect from its original design without written authorization by Ricon.

Ricon disclaims liability for any personal injury or property damage that results from operation of a Ricon product that has been modified from the original Ricon design. No person or company is authorized to change the design of this Ricon product without written authorization by Ricon.

Ricon's obligation under this warranty is exclusively limited to the repair or exchange of parts that fail within the applicable warranty period and the authorized labor to accomplish said repair.

Ricon assumes no responsibility for expenses or damages, including incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

Important: The warranty registration card must be completed and returned to Ricon within 20 days after installation of this Ricon product for the warranty to be valid. The warranty is not transferable.
The warranty gives specific legal rights. There may be other rights that vary in each state.

C. SHIPMENT INFORMATION

- When the product is received, unpack the product and check for freight damage. Claims for damage should be made to the freight carrier immediately.
- Be sure the installation kit contains all items listed on the kit packing list. Please report any missing items immediately to Ricon Product Support.
- The warranty and owner registration cards must be completed and returned to Ricon within 20 days to validate the warranty.

NOTE: The Sales or Service personnel must review the Warranty and this Operator Manual with the user to be certain that they understand how to safely operate the product and instruct the user to follow the operating instructions without exception.

D. GENERAL SAFETY PRECAUTIONS

The following general safety precautions must be followed during installation, operation, and maintenance:

- Under no circumstances should installation, maintenance, repair, and adjustments be attempted without the immediate presence of a person capable of rendering aid.
- An injury, no matter how slight, should always be attended. Always administer first aid or seek medical attention immediately.
- Protective eyeshields and appropriate clothing should be worn at all times.
- To avoid injury, always exercise caution when operating and be certain that hands, feet, legs, and clothing are not in the path of product movement.
- Batteries contain acid that can burn. If acid comes in contact with skin, flush affected area with water and wash with soap immediately.
- Always work in a properly ventilated area. Do not smoke or use an open flame near a battery.
- Do not lay anything metallic on top of a battery.
- Check under vehicle before drilling to avoid drilling into frame, subframe members, wiring, hydraulic lines, fuel lines, fuel tank, etc.
- Read and thoroughly understand the operating instructions before attempting to operate.
- Inspect the product before each use. If an unsafe condition is noted, such as unusual noises or movements, do not use lift until the problem is corrected.
- Never load or stand on the platform until installation is complete. Upon completion of installation, test load the lift to 100% of its rated load capacity.
- Stand clear of doors and platform and keep others clear during operation.
- The product requires regular periodic maintenance. Inspections are recommended at the intervals prescribed in chapter three. The product must be maintained at the highest level of performance.

E. MAJOR LIFT COMPONENTS

The references used throughout this manual are illustrated in **Figures 1-1, 1-2** and defined in the **Tables 1-1, 1-2**. Refer to **Chapter IV** "Parts Diagrams and Lists" for more details.

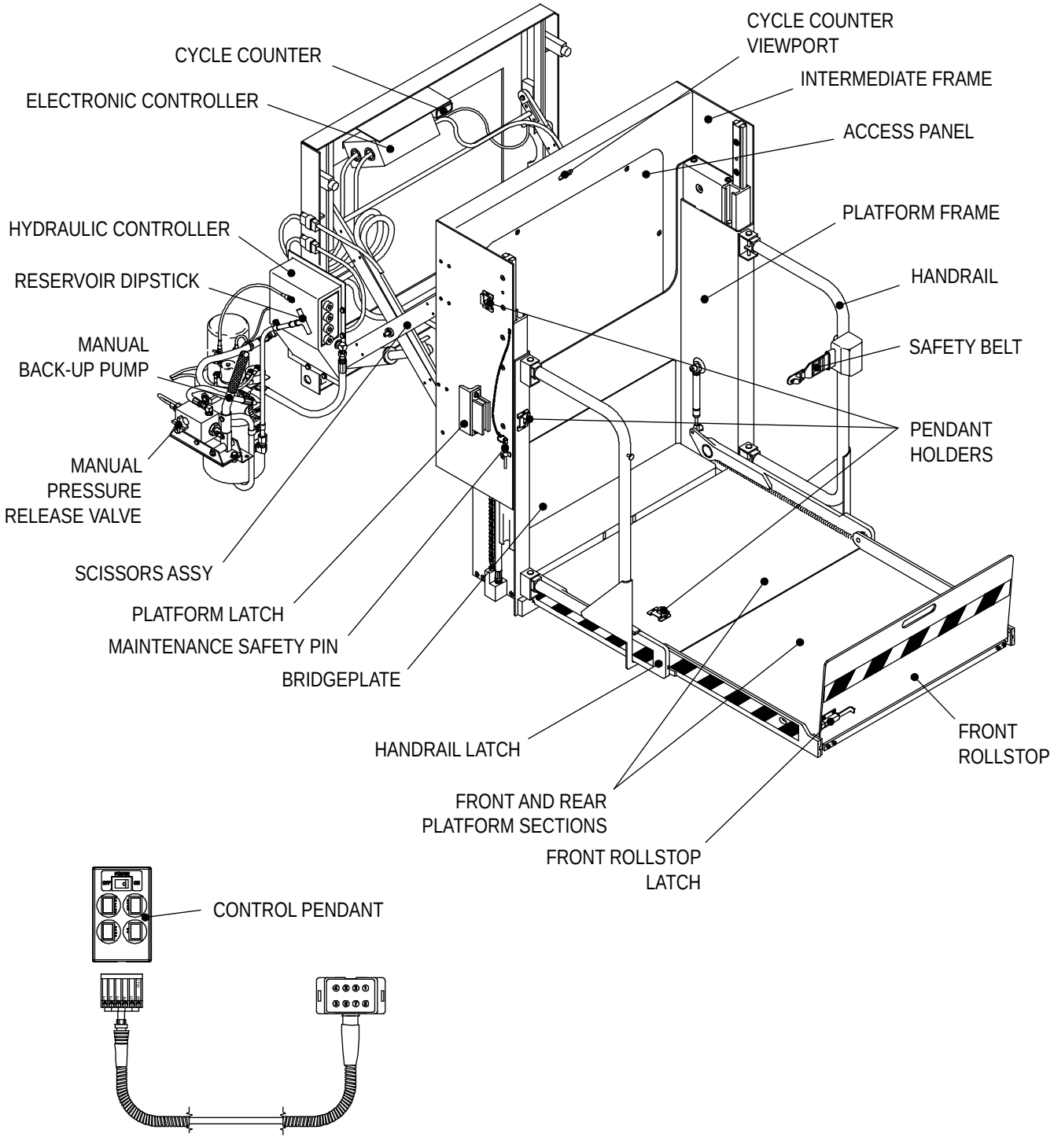


FIGURE 1-1: BAYLIFT PUBLIC USE WHEELCHAIR LIFT COMPONENTS

TABLE 1-1: BAYLIFT TERM DEFINITIONS	
TERM	**DESCRIPTION**
Left, right, front, rear	Position references when installed lift is viewed from outside of vehicle.
Access panel	Provides easy access to components located behind intermediate frame.
Audible alarm	(not shown) Announces that something has passed through doorway threshold area and platform. Is 71" from vehicle floor level. Activated by threshold warning system (TWS). Refer to "Threshold Warning System" in Chapter II.
Bridgeplate	Plate bridges gap between platform and vehicle floor when platform is at floor level. Acts as rear barrier during up and down platform motions to prevent wheelchair from rolling off of platform.
Control pendant	Hand-held device controls platform motions.
Cycle counter viewport	The counter can be seen here. It records number of times platform has moved from floor to ground and back to floor.
Electronic controller	Receives input signals from pendant and lift sensors and sends control signals to pump motor and hydraulic controller.
Front and rear platform sections	Lift components where wheelchair and occupant are situated during UP and DOWN platform motions. Folds and stows into platform frame.
Front rollstop	Front barrier prevents the wheelchair from inadvertently rolling off platform during platform movement.
Front rollstop latch	Manually operated latch locks front rollstop in stowed position. Rollstop is locked in upright position by dropping into slots.
Handrail	(left and right) Provides a handhold for standing passenger (standee).
Handrail latch	(left and right) Manually operated latch locks handrail in outward or inward position. Push handrail downward to release latch.
Hydraulic controller	Electro-hydraulic, solenoid valve system controls distribution of hydraulic fluid to cylinders. Receives input signals from electronic controller.
Hydraulic pump and reservoir	Hydraulic pump is driven by electric motor and produces pressure to extend and raise platform and to raise bridgeplate. Includes manual backup components.
Intermediate frame	Rigid structure suspended on outer ends of scissor assembly. Platform frame is attached to front face.
Maintenance safety pin	(left and right) Maintenance item that is employed to lock platform in position on intermediate frame. Must be removed for normal operation.
Manual backup pump handle	Use to operate manual backup pump when electrical power is not available.
Manual bypass knobs	Four knobs are employed during manual operation to control distribution of hydraulic fluid to preferred lift cylinders.
Manual pressure release valve	Opening valve bleeds pressure from hydraulic system, allowing platform or bridgeplate to lower.
Pendant holders	(up to three each, depending on application) Storage clips for pendant. One clip is attached to bottom of platform.
Platform frame	Structure that platform and handrails attach to. Moves up and down on sliders fastened to intermediate frame.
Platform latch	Magnetic catch that holds folded platform sections in upright position.
Reservoir dipstick	Use to determine fluid level in reservoir.

TABLE 1-1: BAYLIFT TERM DEFINITIONS	
TERM	**DESCRIPTION**
Safety belt	Safety restraint belt that spans between handrails to confine passenger.
Scissors assembly	(left and right) Telescoping components that support intermediate frame and platform, and allow horizontal movement.
Visual alarm	(not shown) Flashing red light makes it known that something has passed through doorway threshold area. Activated by threshold warning system (TWS). Refer to “Threshold Warning System” in Chapter II.
END OF TABLE	

II. BAYLIFT PUBLIC USE DESCRIPTIONS

This chapter contains BayLift Public Use wheelchair lift four basic functions and positions, and control and indicator descriptions for the hand held, remote-control pendant.

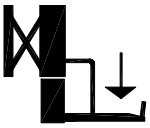
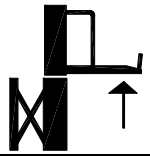
A. BAYLIFT FUNCTIONS AND POSITIONS

Refer to **Table 2-1** for descriptions of the four basic motions. These functions are put into action by using the hand held, hard-wired remote-control pendant.

NOTE: The platform is an assembly comprised of the intermediate frame, platform frame, handrails, front and rear platform sections, bridgeplate, and front rollstop. Note that up and down motions operate only when platform is fully extended.

Refer to **Figure 2-1** to see the lift at floor, ground and stow levels, and stowed position.

TABLE 2-1: PLATFORM MOTIONS

MOTION	DESCRIPTION
 DEPLOY	Platform moves outward from lift compartment
 DOWN	Platform lowers towards ground level. Bridgeplate automatically rises when platform drops below floor level.
 UP	Platform rises towards vehicle floor level. Bridgeplate automatically lowers when platform arrives at floor level.
 STOW	Platform moves downwards towards stow level and then retracts into lift compartment. If platform is below stow level, it must first be raised above stow level.

END OF TABLE

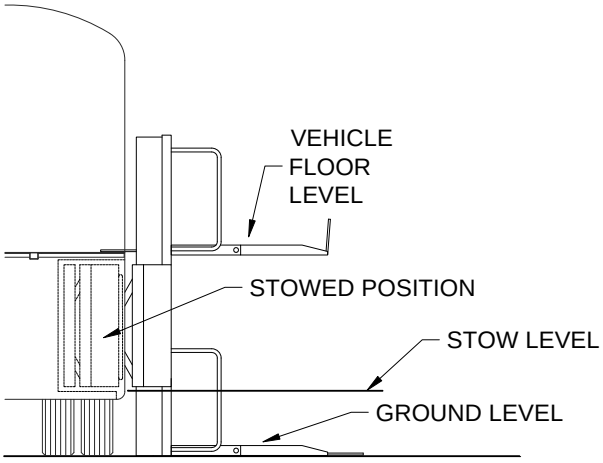


FIGURE 2-1: PLATFORM POSITIONS

⚠ CAUTION
The maintenance safety pins must be removed before attempting to raise or lower the platform. Severe damage to lift will occur if the pins are not removed. The pins are normally stored on the side and are for maintenance only. There is a pin on each side of the lift.

B. CONTROLS AND INDICATORS

⚠ WARNING
THE LIFT IS ALLOWED TO OPERATE ONLY WHEN THE LIFT AND VEHICLE INTERLOCK CIRCUITRY REQUIREMENTS ARE MET. IF NECESSARY, REFER TO VEHICLES OPERATOR MANUAL FOR INTERLOCK INSTRUCTIONS. DO NOT ATTEMPT TO OPERATE LIFT WITH INTERLOCK BYPASSED.

1. CONTROL PENDANT

⚠ CAUTION
Refer to Figure 1-1 in Chapter 1 of Ricon document number 32DBLE03. There are 2 to 3 pendant storage clips (depending on application) located on the unit. The clip shown above is for use by the operator only when loading or assiting passangers. The pendant must be attached to the clip located on the bottom of the platform when the platform is stowed The pendant will be severly damaged by the bus doors if left stored on either of the other clips.

Refer to **Figure 2-2**. The lift is operated with a hand-held, hard-wired remote-control pendant. Turn on the POWER ENABLE switch and then press an appropriate button to control each lift motion.

The POWER ENABLE switch provides power to the pendant and thereby enables the lift. When turned on, the power switch and each button illuminate.

Pressing the DEPLOY button extends the platform from the storage compartment, and pressing the STOW buttons retracts the platform back into the storage compartment. Pressing the DOWN button lowers the platform towards the ground and pressing the UP button raises the platform towards the vehicle floor.

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

NOTE: In addition to the four powered operations described above, there are several manual operations required to deploy, lower, and stow the platform. Refer to the BayLift operator manual (32DBLE03), “Normal Lift Operation” section.

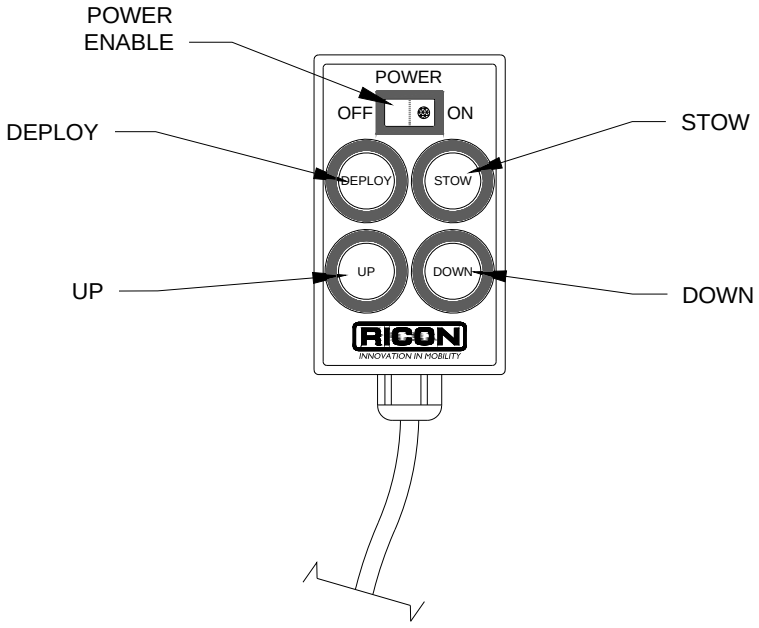


FIGURE 2-2: CONTROL PENDANT

2. CIRCUIT BREAKERS

- Main Circuit Breaker

Refer to **Figure 2-3**. The main circuit breaker is located in vehicle battery compartment and is used to interrupt electrical power to lift electrical system when a major short circuit occurs. In the event of such a short circuit, the circuit breaker reset tab will rotate CW (flip-down). Rotate tab CCW as shown to reset. If rotating reset tab CCW and releasing does not restore power, do not press and hold tab. Contact a Ricon dealer or qualified service technician for repair.

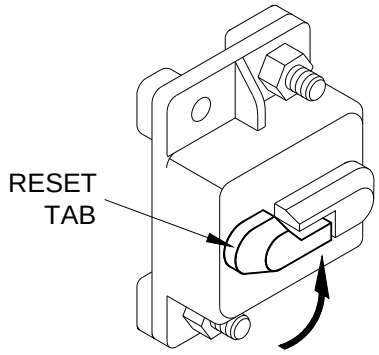


FIGURE 2-3: MAIN CIRCUIT BREAKER

- Control System Circuit Breaker

The control system circuit breaker is located on the PCB assembly, which is inside the electronic controller. The control system includes essentially all electrical components except the motor that drives the hydraulic pump.

3. VEHICLE INTERLOCK SYSTEM

The purpose of the vehicle interlock system is to prevent lift operation if it is unsafe to do so. Typical requirements are that the vehicle transmission be in neutral, the parking brake be applied, and the passenger door be opened before power is supplied to the lift. Before the vehicle can depart, the lift must be stowed, and both the lift compartment door and passenger door must be closed.

4. BRIDGEPLATE LOAD SENSOR

A sensor switch is located in the hydraulic line connected to the bridgeplate hydraulic cylinder. When the sensor detects that an object is present on the bridgeplate it inhibits raising or lowering of the platform. This protects the passenger from possible injury when the cylinder raises the bridgeplate. It also protects the bridgeplate from damage, which could interfere later with proper operation of the lift.

5. LIFT CYCLE COUNTER

Refer to Figure 1-1 in Chapter I. The cycle counter (located near the electronic controller) is visible through a slot at the top center of the intermediate frame, just above the access panel. The counter advances each time the platform moves through a complete cycle, which consists of the platform moving from the vehicle floor to the ground and back to the floor. The number of cycles displayed is used to schedule maintenance operations.

6. THRESHOLD WARNING SYSTEM

Refer to **Figure 2-4.** The threshold warning system is installed at the top of the doorway above the lift compartment. The module is powered on when the lift is powered, and the status indicator light then turns on. The acoustic sensors are enabled when the door is open and the lift-to-vehicle interlock system requirements are met.

NOTE: Some installations provide a vehicle door closure signal to the module that will disable the sensors when the door is closed.

Acoustic sensors (transmitter and receiver) monitor the doorway threshold area for the presence of a passenger (or object, such as a wheelchair). If someone is detected in the threshold area when the platform is one inch, or more, below the floor an audible buzzer and flashing red light are actuated.

This system provides a margin of safety for lift passengers by warning them when the platform is below floor level. The platform must be at floor level when a passenger is boarding or exiting the platform.

NOTE: An optional installation method can disable the buzzer and flashing light when the door is closed. In this case, the status indicator flashes when a passenger presence is detected.

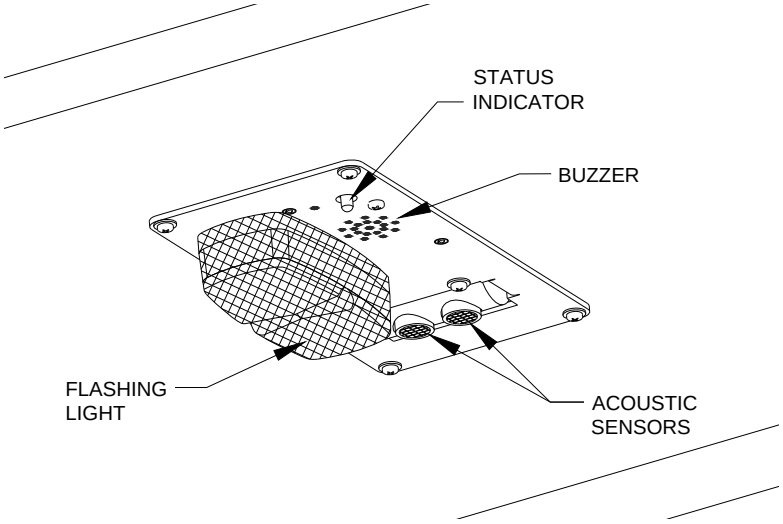


FIGURE 2-4: THRESHOLD WARNING SYSTEM MODULE (VIEWED FROM INTERIOR OF VEHICLE)

7. MANUAL BACK-UP PUMP

Refer to **Figure 2-5**. The manual backup pump system can operate the lift if electrical power is not functional. The controls for the system consist of a pump handle (not removable) and pressure release valve, which are used in conjunction with four bypass knobs to extend, raise, lower, and retract the platform.

The four bypass knobs shown on the front face of the hydraulic controller are connected to four solenoid valves located inside the enclosure. The open or closed position of each solenoid valve determines how fluid is distributed to the five hydraulic cylinders. The knobs provide the ability open and close the valves manually.

Instructions for operating the manual pump are provided in the Manual Operation section in this chapter.

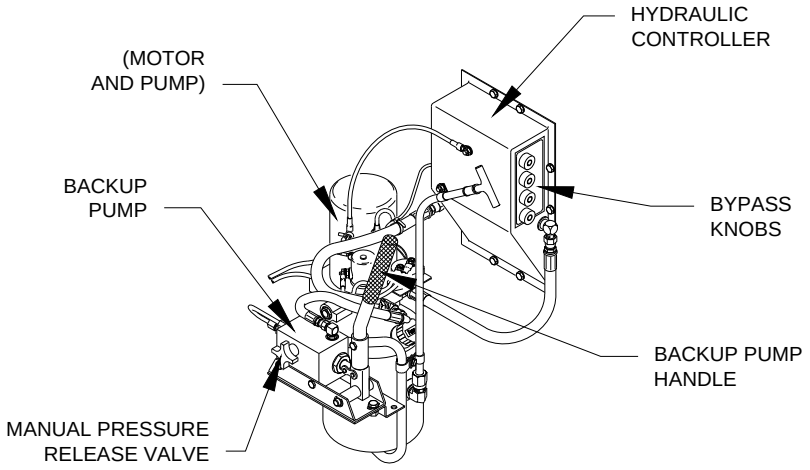


FIGURE 2-5: MANUAL BACK-UP PUMP SYSTEM

III. BAYLIFT MAINTENANCE AND REPAIR

Regular maintenance of the Ricon BayLift Public Use Wheelchair lift is essential for optimum performance, and will reduce the need for repairs. During the Ricon warranty period, a Ricon dealer or qualified service technician must perform maintenance. Ricon recommends that a Ricon dealer or qualified service technician continue maintenance when the warranty expires.

⚠ WARNING

THIS RICON PRODUCT IS HIGHLY SPECIALIZED. MAINTENANCE AND REPAIRS MUST BE PERFORMED BY A RICON DEALER OR QUALIFIED SERVICE TECHNICIAN USING RICON REPLACEMENT PARTS. MODIFYING OR FAILING TO PROPERLY MAINTAIN THIS PRODUCT WILL VOID WARRANTY, AND MAY RESULT IN UNSAFE OPERATING CONDITIONS.

The BayLift requires a minimum amount of maintenance. Below are basic care and maintenance items.

A. VISUAL INSPECTION

Prior to operating the lift, and during repair procedures and during the vehicle's standard preventive maintenance schedule, the unit should be inspected. The operator and maintenance personnel should routinely inspect the following items.

1. ATTACHING HARDWARE

Periodically inspect for loose or missing attaching hardware. Tighten or replace as required

2. HYDRAULIC HOSES

For the hydraulics, flexible hose lines are used to provide routing ease, vibration absorption, sound deadening and the ability to accommodate movement of equipment. Hoses have a finite service life and should be inspected periodically.

⚠ CAUTION

If a hydraulic hose is found defective or is damaged, it must be replaced. DO NOT repair hydraulic hoses, replace as an assembly. Attempting to repair a hose can undermine design and operational parameters and create an unsafe condition for personnel and equipment. Hose assemblies are available from Ricon. Hoses must be made by a shop qualified to make high presure hydraulic hoses assemblies. Hose assemblies made by an outside vendor must meet or exceed the parameters of the original equipment.

If any of the following conditions exist, the hose assembly must be replaced:

- Leaks at fitting or in hose.
- Damaged, cut or abraded cover (reinforcement is exposed).
- Kinked, crushed, flattened, or twisted hose.
- Hard, stiff, heat cracked or charred hose.
- Blistered, soft, degraded, or loose cover material.
- Cracked, damaged, or badly corroded fittings.
- Fitting slippage on hose.

The following items must be tightened, repaired or replaced as required:

- Leaking port connections.
- Clamps, guards, shields.
- Remove excessive dirt buildup.
- System fluid level, fluid type, and any air entrapment.
- Contaminated (dirt, debris) or deteriorated fluid.

3. HYDRAULIC CYLINDERS

Inspect cylinders for leaks. A minor amount of oil on the piston shaft is acceptable. If leaks are detected, install new seal kit or replace cylinder as required.

4. POWER UNITS

Inspect for leaks, repair as required. Test the operation of the hand pump.

5. NON-SKID SURFACES

Check non-skid surfaces for excessive wear and loose edges. Repair or replace as required.

B. CHAIN LUBRICATION

A light coat of oil should be applied to the chain located inside the moving frames approximately every 12 months or whenever the chain is detached or handled for the maintenance/service. The amount of oil and service interval may vary depending on use and local environmental conditions.

C. HYDRAULIC RESERVOIR

The hydraulic reservoir fluid level should be checked, as well as during the vehicle's standard preventative maintenance schedule.

1. TO CHECK AND FILL:

- ♦ Lower platform to ground level. This is to collapse the cylinders.

⚠ CAUTION
When the lift is completely lowered, the hydraulic cylinders are drained and the reservoir is at its fullest. Checking and filling the reservoir with the lift elevated will cause an overfill condition.

- ♦ Use the dipstick to measure the amount of oil in the reservoir.
- ♦ Using a long necked funnel, fill the reservoir through the dipstick tube or the breather cap. If filling through the dipstick tube, add oil then let the oil level stabilize before measuring. Repeat the procedure until the level is at the full mark on the dipstick.

2. FILTER INSPECTION:

- ♦ The intake tube is equipped with a screen filter. The filter should not require maintenance as long as the oil remains clean, however the filter should be inspected every 500 operating hours or anytime oil contamination is suspected. Refer to section E for disassembly and cleaning procedures.
- ♦ Change the hydraulic fluid every 500 hours or when inspecting the filter. Refer to section E for disassembly procedures.
- ♦ The reservoir holds approximately 6 quarts of hydraulic fluid. Amount may vary slightly because of the quantity of oil in the cylinders and hoses. Use Pentosin G002000 or hydraulic fluid.
- ♦ Whenever the system is opened and drained, it is necessary to bleed the system after filling. Refer to section E for procedures.

D. DIAGNOSES PROCEDURE OVERVIEW

1. VERIFY PROBLEM EXISTS

The first step in diagnosing any problem is to identify what the problem is. Mistaking or ignoring symptoms can lead to unnecessary work and/or part replacement. Spend time with the operator to determine what is wrong and what is working right. Eliminate operator error, (switches not turned on, gear not engaged etc.)

2. PERFORM PRELIMINARY DIAGNOSTICS

A combination of visual inspection and a review of recent work along with some basic inspection procedures are used to eliminate fundamental causes such as low battery voltage, etc.

3. REVIEW TECHNICAL SERVICE BULLETINS (TBS'S)

If a common issue occurs that may affect units in service, vendors and/or the factory may issue TBS's that explain the problem and subsequent solutions.

4. DIAGNOSE SYMPTOMS

Follow the step-by-step procedures in this section to analyze the problem and repair as required.

5. CONTROL CIRCUIT BOARD

The electronic control circuit board controls and push buttons coordinate the various functions of the lift. A series of LED indicators are used to indicate which function activity is being performed. These lights can be used to diagnose and troubleshoot the operation of the lift.

TABLE 3-1: LED FUNCTIONS		
LED	**FUNCTION**	**DESCRIPTION**
12	**DEPLOY SOLENOID** *(EXTEND SCISSORS)*	On when the DEPLOY function is activated. Indicates that function valve (SV1) and motor solenoid are energized when the DEPLOY button is being depressed. Lift must be at stow level and platform folded with the handrails locked in. This LED will come off when the lift is extended.
13	**DOWN SOLENOID**	On when the DOWN function is activated. Indicates that power is applied to the pressure switch. If inner barrier is down, power applied to SV4 and motor solenoid to raise barrier. If inner barrier is up, power is applied to valve SV3 and drain valve SV6. Lift must be fully deployed with the outer barrier in the vertical and locked position.
14	**IN BAR UP**	On when the inner barrier switch is activated to lower barrier. Indicates that function valve SV4 and SV6 are energized. Lift must be fully deployed with the outer barrier in the vertical and locked position.
15	**TWS**	On when the lift is powered up. It indicates that the Threshold Warning System (TWS) is active. This LED will only come off when the lift is at vehicle floor level and the inner barrier is down. It will come back on after activating the DOWN function and the inner bar is rising.
16	**COUNTER**	On when it counts one cycle. A cycle starts when the lift is fully deployed and raised to vehicle floor level where the inner barrier is lowered then raised. The lift must then be lowered to floor level where the outer barrier is lowered then raised. The lift must then be raised to stow level and be stowed to be counted as one cycle.
17	**PUMP SOLENOID**	On when the DEPLOY, UP, or STOW functions are activated. Indicates that any of the function valves and the motor solenoid have been energized when any of these buttons are being depressed. When activating the UP function, the lift must be fully deployed with the outer barrier in the vertical and locked position. When activating the DEPLOY or STOW functions the platform must be folded with the handrails locked in. This LED will come off when the lift has been fully stowed, deployed or when the lift has reached vehicle floor height.
18	**UP SOLENOID**	On when the UP function is activated. Indicates that the function valve (SV3) and motor solenoid is energized when the UP button is being depressed. Lift must be fully deployed with the outer barrier in the vertical and locked position.
19	**STOW SOLENOID** *(RETRACT SCISSORS)*	On when the STOW function is activated. Indicates that function valve (SV2) and motor solenoid is energized when the STOW button is being depressed. Lift must be at stow height and platform must be folded with the handrails locked in. This LED will come off when the lift is stowed.
21	**ABOVE STOW**	On when lift is above stow level. This LED will come off when the lift is below stow level.
22	**STOW LEVEL**	On when lift is at stow level. This LED will come off when the lift is above stow level, or below stow level.
23	**FLOOR LEVEL**	On when the lift reaches vehicle floor level. This LED will come off when the lift is lowered.
24	**SCISSOR EXTEND**	On when the scissors are extended. This LED will come off when the scissors are retracted.
25	**PLATFORM STOW**	On when the platform is folded with the handrails locked in. This LED will come off when the handrails are unlocked.
26	**OUT BAR UP**	On when the lift is fully deployed and the outer bar is in the vertical and locked position. This LED will come off when the outer bar is lowered.

TABLE 3-1: LED FUNCTIONS		
LED	**FUNCTION**	**DESCRIPTION**
27	**IN BAR UP**	On when the inner barrier is in the vertical position. This LED will come off when the lift is at vehicle floor level and the inner bar has been lowered.
43	**PRESSURE SWITCH**	On when there is pressure on the inner barrier or when it is in the vertical position. This LED will come off when the lift is at vehicle floor level and the inner barrier is in the lowered position.
44	**PEND UP**	On when the UP function is activated.
45	**PEND DOWN**	On when the DOWN function is activated.
46	**PEND DEPLOY**	On when the DEPLOY function is activated.
47	**PEND STOW**	On when the STOW function is activated.
49	**BELOW STOW**	On when the lift is below stow height. This LED will come off when the lift is at stow height or above stow height.
50	**DOOR CLOSE**	On when the bus access door is closed.
END OF TABLE		

6. SPECIFIC CONDITION DIAGNOSTIC TABLES

TABLE 3-2: PRELIMINARY INSPECTIONS

DP1	PRELIMINARY INSPECTION	RESULT	ACTION TO TAKE
DP1-1	**Standard maintenance**		
	1. Clean machine to prevent buildup of debris. 2. Inspect fluid levels and fill as required. 3. Ensure that equipment has been correctly lubricated and maintained.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	Conditions are not satisfactory – perform standard maintenance and retest problem.
DP1-2	**Inspect recent work done**		
A.	Inspect recent work performed including repairs or new installations (e.g. radio). Ensure that work has not corrupted or altered existing function configurations.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	Conditions are not satisfactory – correct condition and retest problem.
DP1-3	**Inspect problem area**		
	Visually inspect problem area for obvious obstructions, fluid leaks, disconnected or broken wires and hoses or other obvious conditions such as broken or misaligned components.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	If component or condition (e.g. fluid leak) is found, investigate and repair as required. Retest.
DP1-4	**Confirm electrical power to lift**		
A.	Confirm that interlock conditions are set • Transmission in NEUTRAL or PARK. • Parking brake ON. • Engine set on HIGH IDLE. • Passenger door open. • Follow the interlock instructions provided by the vehicle manufacturer.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	Correct as required. If problem persists – go to DP1-4B.
B.	Check that control power is ON.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	Check components (i.e. switches) and wiring between vehicle battery and lift; check all ground circuits for lift; and, check circuit breaker on circuit board. Repair as required. • If LED is on and lift still does not operate – go to DP1-4C. • If LED is not on and power is present at "POWER IN" connection on circuit board, replace circuit board.

TABLE 3-3: PRELIMINARY INSPECTIONS (CONT)			
DP1	**PRELIMINARY INSPECTION**	**RESULT**	**ACTION TO TAKE**
DP1-4	**Confirm electrical power to lift (cont)**		
C.	Check that power is on.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	Check the lift control circuit components and wiring between vehicle battery and lift. Repair as required. • If LED is ON and lift still does not operate- go to DP1-5. • If LED is NOT ON and power is present at "RLY8 ENABLE" on circuit board, replace circuit board.
DP1-5	**Confirm operation of hydraulic system**		
A.	Check function valve manual bypass settings. For normal operation, all valves (SV1, SV2, SV3, SV4 and drain valve) must be in the closed position.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	Reset valves and retest the functions.
B.	Perform all functions using the manual operation procedures section of document 32DBLE03.	**OK**	Problem is electrical. Go to DP1-6.
		Not OK	Problem is mechanical/hydraulic. Test components- Repair as required.
DP1-6	**Check operation of hydraulic power pack**		
A.	Does power at motor run when function switch is activated.	**YES**	Go to DP1-6D.
		NO	Go to DP1-6B.
B.	Confirm power at motor solenoid when function switch is activated.	**YES**	Go to DP1-6C.
		NO	• Confirm power out at P2-5 when switch is activated. • If power present, test continuity of harness between circuit board and solenoid – repair as required. • If power not present, board is bad – replace.
C.	Test motor solenoid. When function switch is activated and power is present to coil, text power from coil is present at motor.	**YES**	Power present ground is good by motor does not run – motor is bad – replace or have motor repaired by qualified repair shop.
		NO	No power out from motor solenoid – solenoid is bad – replace.
D	Test drain valve coil. Confirm that coil is NOT energized when the following functions are active: deploy, stow, up, in barrier up. Confirm that coil is energized when the following functions are active: down, stow (if not at stow height).	**YES**	• Coil is energized. Check harness and wiring connections to drain valve coil. Repair as required. • If wiring OK – board is bad - -replace.
		NO	Coil is not energized. Check that valve cartridge is not frozen open. Place a pressure guage in line between the pressure port of the pump and the hydraulic manifold. Use the manual operation procedures and observe pressure. If no pressure is present, drain valve is bad – replace. If valve OK – go to Specific Condition Diagnostic.
END OF TABLE			

TABLE 3-4: DP2 CONDITION DIAGNOSTICS			
DP2	**LIFT DOES NOT DEPLOY**	**RESULT**	**ACTION TO TAKE**
DP2-1	**Perform preliminary inspection**		
A.	Follow procedures listed under DP1.	**OK**	No fault found. Conditions are satisfactory.
		Not OK	Conditions are not satisfactory – correct condition and retest.
B.	Confirm location of lift. 1. Is lift at stow height? Or does lift raise/lower to stow height then stop?	**YES**	• Problem is electrical. Go to DP1-6.
		NO	• Lift is above stow height and does not automatically lower to stow height – go to DP5. • Lift is below stow height and does not automatically raise to stow height – go to DP6.

TABLE 3-5: DP3 CONDITION DIAGNOSTICS			
DP3	**LIFT DOES NOT STOW**	**RESULT**	**ACTION TO TAKE**
DP3-1	**Perform preliminary inspection**		
A.	Follow procedures listed under DP1	**OK**	No fault found. Conditions are satisfactory.
B.	Confirm location of lift. 1. Lift must be fully deployed. 2. Lift must be above stow height 3. Outer barrier is in the vertical position.	**Not OK**	Conditions are not satisfactory – correct condition and retest.

TABLE 3-6: DP4 CONDITION DIAGNOSTICS			
DP4	**LIFT DOES NOT RAISE**	**RESULT**	**ACTION TO TAKE**
DP4-1	**Perform preliminary inspection**		
A.	Follow procedures listed under DP1	**OK**	No fault found. Conditions are satisfactory.
B.	Confirm location of lift. 1. Lift must be fully deployed. 2. Lift must be above stow height 3. Outer barrier is in the vertical and locked position.	**Not OK**	Conditions are not satisfactory – correct condition and retest.

TABLE 3-7: DP5 CONDITION DIAGNOSTICS			
DP5	**LIFT DOES NOT LOWER**	**RESULT**	**ACTION TO TAKE**
DP5-1	**Perform preliminary inspection**		
A.	Follow procedures listed under DP1.	**OK**	No fault found. Conditions are satisfactory.
B.	Confirm location of lift. 1. Lift must be fully deployed. 2. Outer barrier is in the vertical and locked position.	**Not OK**	Conditions are not satisfactory – correct condition and retest.

TABLE 3-8: DP6 CONDITION DIAGNOSTICS			
DP6	**INNER BARRIER DOES NOT LOWER**	**RESULT**	**ACTION TO TAKE**
DP6-1	**Perform preliminary inspection**		
A.	Follow procedures listed under DP1	**OK**	No fault found. Conditions are satisfactory.
B.	Confirm location of lift. 1. Lift must be fully deployed. 2. Outer barrier is in the vertical and locked position.	**Not OK**	Conditions are not satisfactory – correct condition and retest.

TABLE 3-9: DP7 CONDITION DIAGNOSTICS		
DP7	**NON-STANDARD PERFORMANCE**	**ACTION TO TAKE**
NOTE: *The following are conditions that may occur during normal operation that indicate a performance concern.*		
DP7-1	**Lift continuously cycles UP and DOWN**	
A.	Vertical adjustment of SW4 and/or SW5 switches is incorrect.	Refer to "Stow Switch Adjustment Procedure" in section G – repair as required.
B.	Horizontal adjustment of SW4 switch is incorrect.	
C.	STOW LEVEL switch or harness is bad.	
DP7-2	**Lift lowers to bottom when stow switch is pressed**	
A.	Adjustment of SW4 and/or SW5 switches is incorrect.	Refer to "Stow Switch Adjustment Procedure" in section G.
DP7-3	**Lift moves in a jerky fashion or responses are "spongy"**	
A.	Air is present in the system. **NOTE:** *Foamy oil flowing out o f the fill hole also indicates air in the system.*	Refer to the bleeding procedures in section E.
DP7-4	**Pump does not operate in cold weather**	
A.	Water is in the reservoir. The water can freeze and cause pump not to work until the water thaws.	Drain hydraulic system and reservoir and fill with clean new hydraulic fluid.
DP7-5	**Cylinder does not extend**	
A.	Pump relief pressure is too low. Additional symptoms are: • Motor RPM is faster than normal. • Excessive turbulence in the reservoir.	This occurs because the adjusting screw has moved or dirt is trapped between the seat and the ball or cone of the valve. To correct: • Place a pressure gauge in line with the pressure line to the manifold. Loosen the jamb nut and turn the adjusting screw clockwise and watch the gauge; if the pressure rises, turn screw until the pressure reaches 2000 psi. Tighten jamb nut. • If the pressure does not increase, turn the adjusting screw counter clockwise all the way out; energize the pump to "flush" the dirt past the seat. After flushing, turn screw until the pressure reads 2000 psi. Tighten jamb nut.
END OF TABLE		

E. HYDRAULIC SYSTEMS REPAIRS

1. REPLACING THE BARRIER CYLINDER

The barrier cylinder is located beneath the rear platform. To remove:

- Lift platform to its maximum height.
- Lower the inner barrier. The cylinder and connecting pins are now accessible from below the platform.
- SLOWLY loosen and remove hose from cylinder. Plug open port and hose end.
- Remove cylinder from unit.
- Re-install new cylinder and connect hose.

2. BLEEDING THE BARRIER CYLINDER

When replacing the barrier cylinder or hose, it is necessary to bleed the system to remove air from the system.

- Inner barrier should be down.
- If hose is connected “crack” open hose fitting at cylinder. If hose is not installed, loosely hand tighten hose fitting onto cylinder.
- Using the manual bypass, open the barrier valve (SV4). Open the valve by screwing the knob clockwise.
- Observe the cylinder fitting while operating the hand pump. When air no longer escapes, tighten the fitting on the cylinder.
- Relieve the pressure by slowly opening the manual drain valve.
- Close the barrier valve (SV4) and the manual drain valve.
- Check and fill reservoir as required.

3. REPLACING THE DEPLOY/STOW CYLINDERS

- Manually extend lift and lower platform. Manual operation instructions can be found on page 7.
- Remove access panel in front frame.
- Relieve the system pressure by opening valves SV1, SV2 and the manual drain valve.
- SLOWLY loosen and remove hoses from cylinder. Plug all open ports and hoses.
- Remove cylinder from unit.
- Close all valves opened.
- Re-install new cylinder and connect hose.

4. BLEEDING THE DEPLOY/STOW CYLINDERS

- Fill pump reservoir, check and fill during this procedure.
- Deploy lift. Remove inspection cover.
- Disconnect cylinder shafts from scissor assembly.
- Turn valve SV2 to bypass.
- Refer to Figure 3-1, “B” stowed. Collapse both cylinders by slowly manually pumping.
- Refer to Figure 3-1, “B” stowed. Loosen hose fitting.
- Fasten shaft of cylinders so they do not extend.
- Turn valve SV1 to bypass; slowly manually pump until no air is in the line. Tighten fitting F1.
- Unfasten cylinders. Loosen fitting F2 (“B” stowed), manually pump until cylinders are fully extended. Turn valve SV1 to normal position. Tighten fitting F2.
- Fasten cylinder shaft ends so they do not retract. Loosen fitting F2 (“A” deployed). Turn SV2 to bypass and slowly manually pump until all the air is out of the line. Tighten fitting F2. Turn SV2 to normal position.
- Attach shaft ends to scissor assembly. Check fluid level and fill if needed.

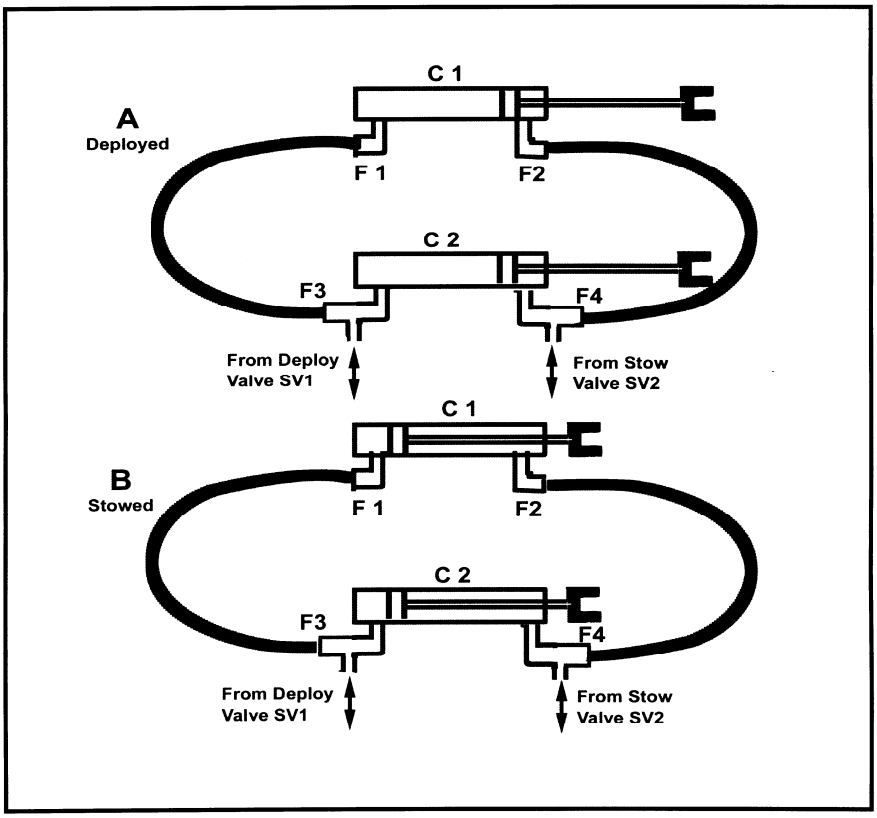


FIGURE 3-1: BLEEDING STOW/DEPLOY CYLINDERS

5. REPLACING THE LIFT CYLINDERS

To replace the lift cylinders, the procedure requires removal of the platform assembly. An overhead hoist or similar device is required for this operation.

- Disconnect the electrical power.
- Using the manual operations, extend the lift out of the vehicle.
- Place 4-inch blocks under the platform area. Use a quantity that will evenly support the platform assembly.
- Lower the platform down onto the blocks. Continue to lower until there is slack in the lift chain.
- Remove the chain guards.
- Disconnect the lift chain from both sides. Lift the chain off of the pulley and lay over the front frame.
- Disconnect the over the pulley cable for the barrier sensor and position out of way on the platform.
- Disconnect the over the pulley hose for the barrier cylinder. Plug open port and hose end. Position hose over front frame.
- Using the manual raise operation, lift the intermediate frame up until the slide channels on the intermediate frame clears the slide bars mounted on the inner side plates of the platform assembly.
- Move the platform assembly out of the way.
- Relieve the hydraulic pressure in the lift cylinders. Open the raise/lower valve (SV3) then slowly open the manual drain valve. The cylinders will lower to the collapsed position. It may be necessary to press down on the intermediate barrier. Close all the valves when the cylinders are collapsed. Use caution to not bind the lift chains or hose for the barrier cylinder.
- Disconnect the hose(s) from the lift cylinder(s) and plug the open ports and hose ends.
- Mark the location of the pulleys and remove cylinder from unit.
- To reinstall the cylinders and platform assembly proceed to section F.

6. SETTING THE RELIEF VALVE PRESSURE

- Place a pressure gauge in line with the retract port of the hydraulic manifold.
- Remove the cap from the relief valve.
- Position the platform in the stow height position.
- Manually operate the retract function while observing the gauge. When the lift is fully retracted, pressure should read 650 psi ± 20 psi.
- If pressure is not within limits, turn the adjustment screw with a 1/4 in. Allen wrench. Turning the screw clockwise increases the setting, turning the screw counter clockwise reduces the setting.
- When the correct pressure is established, replace the cap on the valve.
- Remove gauge.

7. HYDRAULIC PUMP AND RESERVOIR

The reservoir and filter may be serviced while the unit is mounted in the vehicle.

- Position the lift fully extended and down. This will collapse the cylinders.
- Disconnect vehicle battery. This will disconnect power to the lift.
- Manually open the function valves (SV1, SV2, SV3 and SV4) and the manual drain valve. This is to relieve pressure in the system.
- Disconnect the vacuum hose from the hand pump. Place the end of the hose in an appropriate container and drain the oil from the reservoir. Plug the open port and cap the hose end when the reservoir is drained.

NOTE: Clean spills immediately.

- Remove dipstick assembly.
- Remove attaching hardware and remove reservoir from assembly. Use care to not damage the reservoir o-ring.
- Empty and clean reservoir. Set reservoir aside.
- Remove filter and clean or replace as required.
- Lightly lubricate o-ring and Install reservoir.
- Install dipstick assembly.
- Attach the vacuum hose.
- Fill the reservoir with Pentosin G002000. Capacity is approximately 6 quarts.
- Follow instructions in this section and bleed the system. Each hydraulic cylinder circuit must be done.
- Fill reservoir as required after bleeding system.

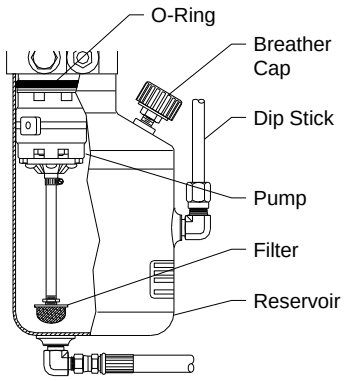


FIGURE 3-2: PUMP AND RESERVOIR

F. PLATFORM INSTALLATION

Steps 1 through 8 must be completed before attaching the chain.

- If not previously done, slide the intermediate frame into the front frame. This is done from the top of the front frame.
- Support the intermediate frame with jacks or an overhead lift.
- Attach fittings to cylinders. This must be done before the cylinders are installed.
- Attach the lift cylinders to the frames. The pulleys must be installed at this time.

NOTE: The chain pulleys are the same. The metal pulley for the wire harness goes on the right side; the nylon pulley for the barrier cylinder hose goes on the left side. The two pulleys cannot be switched.

- Lower the intermediate frame until the cylinders are completely collapsed.
- Attach hose to fittings but do not tighten fitting completely. Leave the hose fitting “cracked open”. This is to bleed the system.
- Clamp the frames together to prevent movement.
- Bleed the lift system by using the manual lift procedure: Open SV3 by screwing the knob clockwise then operate the hand pump until air no longer escapes from the cracked fitting. Tighten the hose fitting.

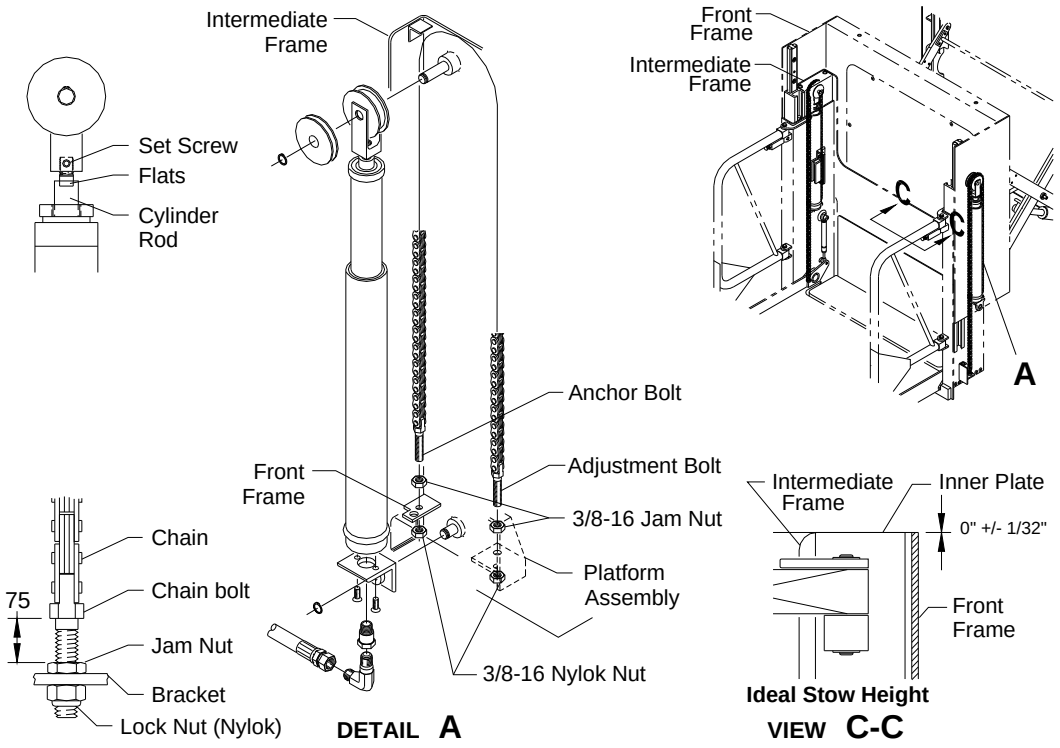


FIGURE 3-3: PLATFORM INSTALLATION

1. LIFT CHAIN INSTALLATION AND ADJUSTMENT

- Refer to **Figure 3-3.** If previously removed, place a jam nut onto the chain anchor bolt. Set the jam nut ¾" from the shoulder of the bolt.

NOTE: The chain anchor bolt and chain adjustment bolt are identified by location. The anchor bolt attaches to the front frame, the adjustment bolt attaches to the inner side plates of the platform assembly.

- Place the bolt into the bracket on the front frame. Coat threads with anti-seize compound then secure using a 3/8-16 Nylock nut. Torque nut to 20 ft-lb.
- Position chain up and over back of front frame.
- Using the manual lift procedure, raise the intermediate frame high enough to allow the platform assembly (with the inner side plates attached) to slide under the intermediate frame.
- Close SV3 and open the drain valve to lower the intermediate frame onto the slides of the inner panels until the lift cylinders are completely collapsed. It may be necessary to physically press down on the intermediate frame. Close the drain valve when the frame is down.
- Route the chains over the pulleys and down. Ensure that the chain does not twist or kink. It must hang straight.
- Using an overhead crane or other suitable device, physically lift the platform assembly up until the chain adjustment bolt hangs below the brackets on the inner panels.
- Place a jam nut on the bolt and run up to the shoulder on the bolt.
- Place the bolt through the bracket and place a standard 3/8-16 nut onto the bolt.
- Using the manual lift procedures, raise the platform until the platform hangs on the chains.

The following procedures should be followed on the right side first, and then repeated as necessary on the left side.

- Using the manual operation, raise the platform until the top of the front and intermediate frames are flush.
- Alternately tighten the standard nuts on the adjusting bolts until the top of the platform assembly is flush with the top of the front frame. This is identified as the absolute stow height.
- Ensure that chains are not twisted then tighten jam nut onto bracket.
- Raise and lower the platform 2 or 3 times and check that the platform assembly is flush when the intermediate and front frames are flush. Repeat steps 19 through 22 until the absolute stow height is repetitive.

- Support the platform assembly and remove the standard nuts on the adjustment bolt. Coat threads with anti-seize compound then secure using a 3/8-16 Nylock nut. Torque nut to 20 ft-lb.
- Route barrier hose over pulley and attach to block on inner side plate.
- Route the outer barrier sensor cable over pulley and attach connector.
- Install chain covers.
- Follow the procedures on page 9 to bleed the barrier cylinder.
- Connect electrical power.

G. STOW SWITCH ADJUSTMENT PROCEDURE (SW4 AND SW5)

⚠ WARNING

THIS PROCEDURE REQUIRES THAT POWER IS SUPPLIED TO THE CONTROLS AND ALLOWS THE LIFT TO OPERATE IF THE CONTROL PUSH BUTTONS ARE ACTIVATED. MOVING COMPONENTS CAN CAUSE SERIOUS INJURY. KEEP BODY PARTS AWAY FROM MOVING COMPONENTS.

Two roller plunger limit switches are used to determine when the platform is at the correct stow height. These are located on the right side on the back of the front frame. The upper switch (SW4) contacts a “T” bolt located on the intermediate frame to determine if the platform is at the correct stow height. The lower switch (SW5) is used to determine if the platform is above or below the correct stow height. For the below stow height condition, the switch contacts the intermediate frame. For the above stow height condition, the switch does not make contact.

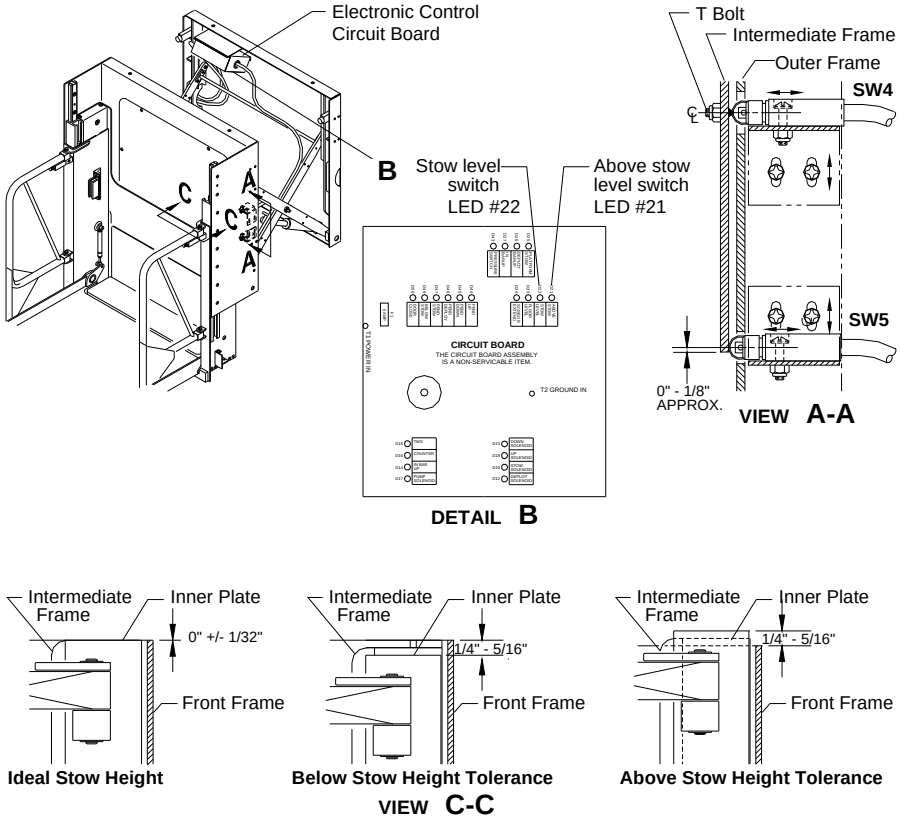


FIGURE 3-4: STOW SWITCH ADJUSTMENT

1. ADJUSTMENT OF STOW HEIGHT SWITCHES (SW4 AND SW5)

- With the lift fully deployed, position the platform at the ideal stow height using the manual operation procedures described in 32DBLE03.
- The ideal stow height is when the top edges of the platform side plates, intermediate frame and front frame align. A tolerance of +/- 1/32” (.8mm) is acceptable.
- Remove the cover of the control circuit board. This is necessary to be able to monitor the LED indicators on the board.

- Loosen the screws holding the mounting bracket for the upper switch (SW4). Vertically align the SW4 switch with the "T" bolt located on the intermediate frame. Tighten attaching hardware.
- Loosen the screws holding the mounting bracket for the lower switch (SW5). Visually align the SW5 switch vertically within 1/8" (3mm) or less of the bottom edge of the intermediate frame.
- With power supplied to the lift controls, loosen the screws holding the SW4 switch and move switch until the roller makes contact with the "T" bolt. Continue to move the switch until LED #22 illuminates, then secure switch in this position.
- Disconnect the spade connectors for black and blue wires going to the lower switch (SW5). Connect a continuity tester to the black and blue leads of the switch. Move the switch against the intermediate frame. Then continue to adjust the switch in until the contacts are closed.
- Remove the tester and reconnect the spade connectors.
- Using the manual operation procedures, raise the lift 3"-4".
- With power on, slowly lower the lift while observing LED #22. Stop the lift when LED #22 illuminates.
- Measure the distance between the top of the inner frame and the top of the outer frame. The distance should be 1 /4" – 5/16" (6.4mm – 8mm).
- Using the manual operation procedures, lower the lift 3"-4" (75mm – 100mm).
- With power on, slowly raise the lift while observing LED #22. Stop the lift when LED #22 illuminates.
- Measure the distance between the top of the inner side plate and the top of the front frame. The distance should be 1 /4" – 5/16" (6.4mm – 8mm).
- If the measurements are within range, continue with the next step. If measurements are not within range, adjust SW4 and retest until measurements are within range.

NOTE: Moving the switch toward the "T" bolt will reduce the distance measured in steps 8 and 11. Moving the switch away from the "T" bolt will increase the measurements in steps 8 and 11.

- Tighten attaching hardware for SW4 and SW5 switches.
- Slowly retract lift while observing LED #24. Stop the lift when LED #24 goes out.
- Using the manual operation procedures, lower the lift 3"-4" (75mm – 100mm).
- Using the pendant control, activate the DEPLOY push button. The platform should rise to the stow height, and then deploy. If the lift does not perform correctly, refer to the troubleshooting section.

⚠ CAUTION
If the lift does not stop at the stow height, do not allow the lift to continue to rise. Serious damage can occur to the lift and vehicle.

- Slowly retract lift while observing LED #24. Stop the lift when LED #24 goes out.
- Using the manual operation procedures, raise the lift 3"-4" (75mm – 100mm).
- Using the pendant control, activate the DEPLOY push button. The platform should lower to the stow height, and then deploy. If the lift does not perform correctly, refer to the troubleshooting section.

⚠ CAUTION
If the lift does not stop at the stow height, do not allow the lift to continue to lower. Serious damage can occur to the lift and vehicle.

2. COMMON SWITCH MISALIGNMENT PROBLEMS

If SW4 and/or SW5 switches are misaligned, the following problems can occur when the DEPLOY switch is activated:

- Lift lowers and raises in a continuous cycle:
  SW5 switch is cycling between "above stow height" and "below stow height" before lift reaches stow height.
  - Vertical adjustment of SW4 and/or SW5 switches is incorrect.

  SW4 switch is not being activated at stow height.
  - Horizontal adjustment of SW4 switch is incorrect.
  - Switch is bad.
- Lift lowers to bottom:
- SW4 and SW5 switches are both out of alignment.

H. ELECTRICAL DIAGRAMS

1. DIAGRAM LABELS

POWER DISTRIBUTION

24VDC - Power supply for the Wheelchair Lift Controller and Pump Motor.
+24VDC - Power from Wheelchair Lift Controller to Control Panel, Indicator Switches and TWS.
GROUND - Electrical ground.
*Power lift protected by 5 Amp Circuit Breaker on Printed Circuit Board.

REQUEST SIGNALS

DOWN ATTEMPT - Signal from Control Panel to Wheelchair Lift Controller requesting lower function.
DEPLOY ATTEMPT - Signal from Control Panel to Wheelchair Lift Controller requesting deploy function.
STOW ATTEMPT - Signal from Control Panel to Wheelchair Lift Controller requesting stow function.
UP ATTEMPT - Signal from Control Panel to Wheelchair Lift Controller requesting raise function.

STATUS SIGNALS

SCISSORS EXTENDED INDICATOR SW1 - Normally open. Switch is activated when the scissors are extended.
OUTER BARRIER INDICATOR SW2 - Normally open. Switch is activated when the outer barrier is in the vertical and locked position. Platform must be fully deployed with outer barrier in the vertical and locked position for the up and down functions to work.
PRESSURE SW3 - Normally open. Switch is activated when there is pressure on the inner barrier or when the inner bar is in the vertical position.
STOW LEVEL INDICATOR SW4 - Normally open. Switch is activated when the lift is at stow level.
ABOVE/BELOW STOW LEVEL INDICATOR SW5 - Normally open when the lift is below stow level. It is normally closed when the lift is above stow level.
INNER BARRIER UP INDICATOR SW6 - Normally open. Switch is activated when the inner barrier is in the vertical position.
PLATFORM STOWED INDICATOR SW7 - Normally open. Switch is activated when the platform is folded and the handrails locked.
FLOOR LEVEL INDICATOR SW8 - Normally open. Switch is activated when the lift is at vehicle floor level.

DRIVING SIGNALS

COUNTER OUT - COUNTER is pulsed to 24V to register one cycle count.
DEPLOY - Signal from Wheelchiar Lift Controller to extend solenoid valve (DEPLOY SV1).
DEPLOY SV1 - Electrically operated hydraulic valve which controls the extend movement of the scissors. Wheelchair lift scissors extend when the solenoid is energized. Platform must be folded and handrails locked.
STOW - Signal from Wheelchair Lift Controller to retract solenoid valve (STOW SV2).
STOW SV2 - Electrically operated hydraulic valve which controls the retraction movement of the scissors. Wheelchair lift scissors retract when the solenoid is energized. Platform must be folded and handrails locked.
UP - Signal from Wheelchair Lift Controller to the raise solenoid valve (UP SV3).
UP SV3 - Electrically operated hydraulic valve which controls the raise movement of the lift. Platfrom must be fully deployed with the outer barrier in the vertical and locked position.
DOWN - Signal from the Wheelchair Lift Controller to inner bar (SV4) if inner barrier is down or raise solenoid valve (SV3) and pump drain solenoid valve (SV6) if inner barrier is up.
INNER BAR SV4 - Electrically operated hydraulic valve which controls the raise movement of the inner barrier.
PUMP DRAIN SV6 - Electrically operated hydraulic valve which drains.

DEVICES

TWS - Threshold Warning System.
M - Hydraulic Pump Motor. Produces hydraulic pressure to raise wheelchair lift.
COUNTER - Registers cycle count.

FIGURE 3-5: DIAGRAM LABELS

2. WIRING DIAGRAM

The baylift private use wheelchair lift electrical schematic is divided across the following pages. An internal schematic for the controller is not shown because this part is serviced by the factory.

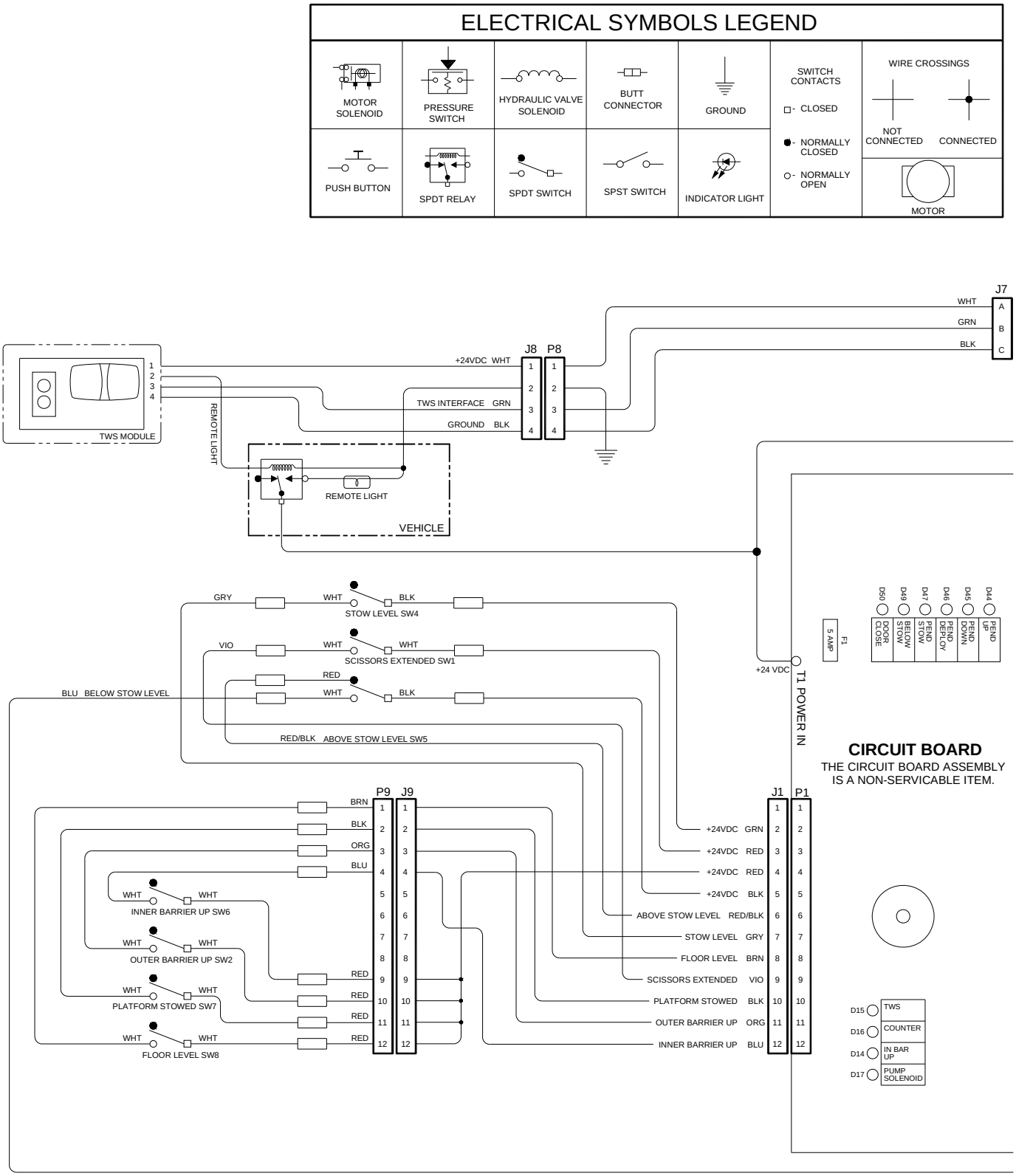


FIGURE 3-6: ELECTRICAL SCHEMATIC PAGE 1

WIRE COLOR CODES		
BRN- BROWN	RED- RED	GRY- GRAY
BLK- BLACK	PUR- PURPLE	VIO- VIOLET
ORG- ORANGE	WHT- WHITE	YEL- YELLOW
BLU- BLUE	GRN- GREEN	

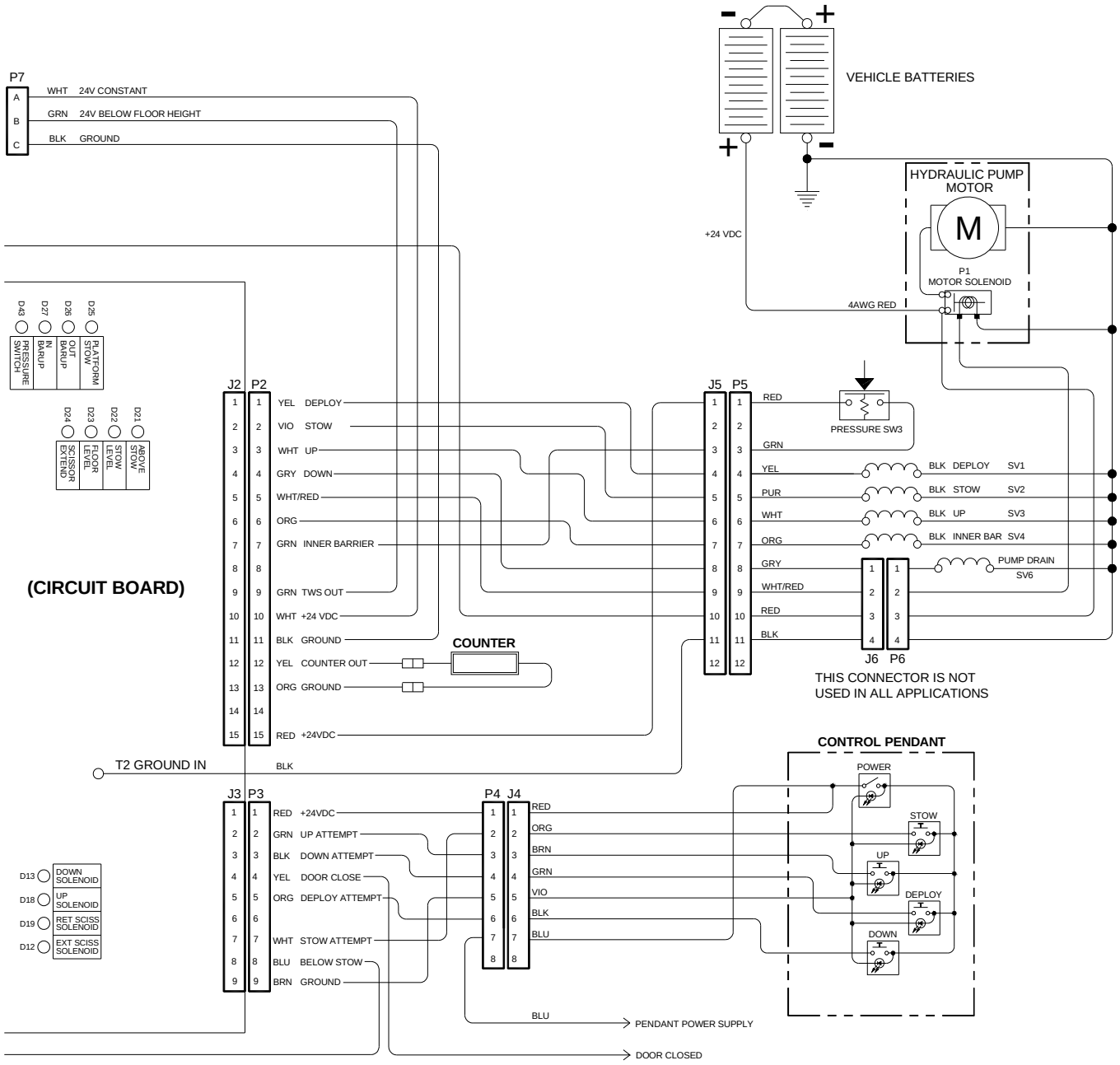


FIGURE 3-7: ELECTRICAL SCHEMATIC PAGE 2

I. HYDRAULIC DIAGRAM

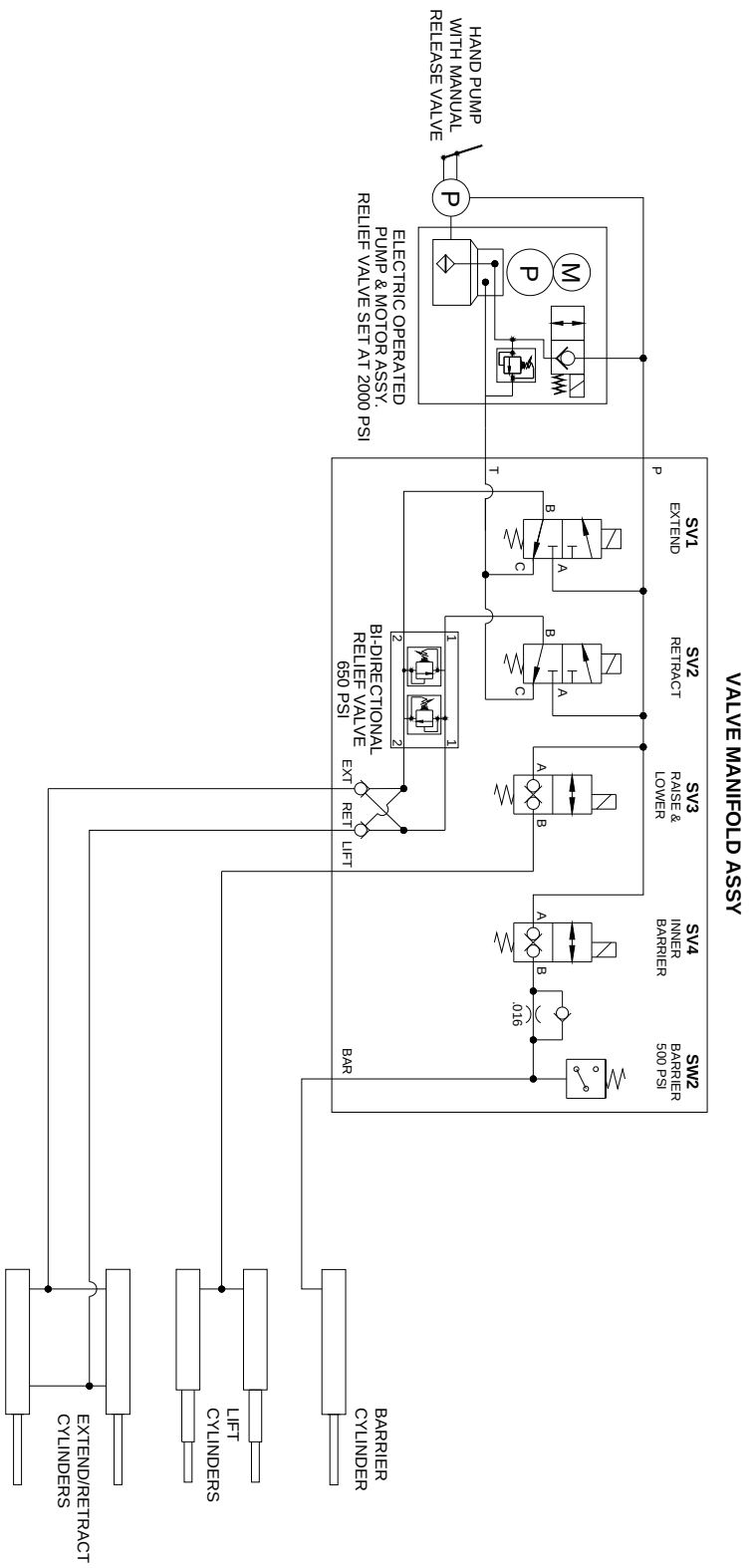


FIGURE 3-8: HYDRAULIC DIAGRAM

IV. SPARE PARTS

This chapter contains parts illustrations and lists for the Ricon BayLift Public use wheelchair lift. Each exploded view of a major lift assembly shows smaller assemblies, components, and kits referenced with numbers. The exploded view is followed by an associated parts list that contains the reference numbers, part descriptions, quantities required for the major assembly shown, and Ricon part numbers.

NOTE: Locate the part or assembly on an exploded view, and note its reference number. Find this number on the associated parts list (following page), and order the Ricon part number in the far right column.

NOTE: Most items that are described as "kits" contain a single part (plus hardware). Therefore, you may need to order more than one kit if the part is used more than once on the assembly shown.

NOTE: Small, inexpensive hardware items are supplied in a minimum quantity of ten, and are packaged in a bag. A single bag may provide more parts than you need, or you may need multiple bags when working on a complex assembly. The QTY/ASSY column indicates how many individual parts are used on the assembly shown; you will need to determine the number of bags required for your task.

NOTE: Most kits contain a single part (plus hardware). Therefore, you may need to order more than one kit if the part is used more than once on a major assembly.

BAYLIFT MODEL AND KIT NUMBERS	
PRODUCT NUMBER	S5510-XXXXXXX (first model in number sequence)
DOCUMENTATION KIT NUMBER	44277

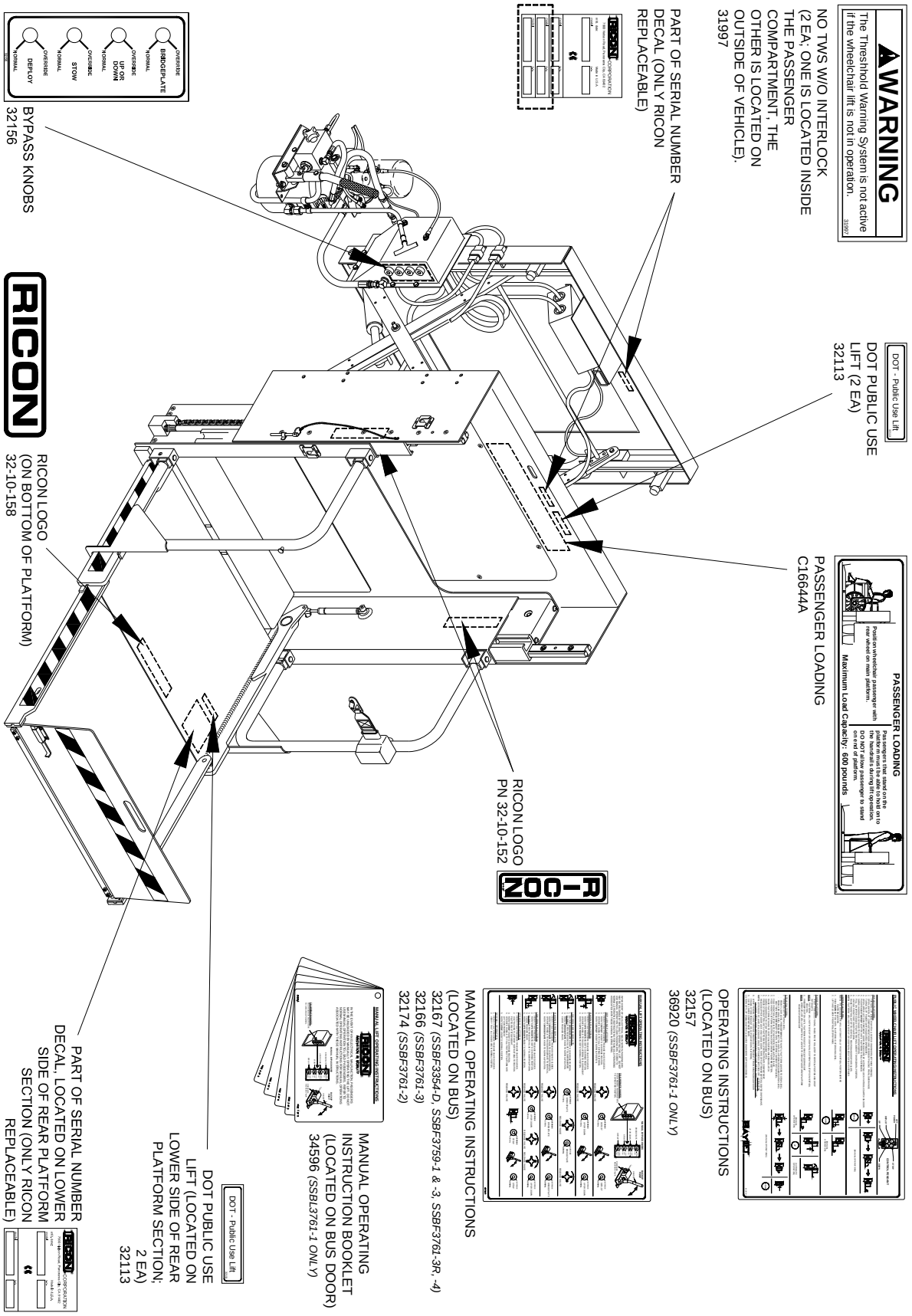


FIGURE 4-1: BAYLIFT PUBLIC USE LIFT DECAL LOCATIONS

FIGURE 4-1: PUBLIC USE DECALS

FIG. ITEM	DESCRIPTION	QTY	CONFIG.	PART NO.
1	DECAL, "RICON", HORIZ, 10.5 X 2.75 BLK	1		32-10-158
2	DECAL, "RICON", VERT, 2.5 X 8.5,SLVR	2		32-10-152
3	DECAL, DOT, PUBLIC USE LIFT	2		32113
4	DECAL, PASSENGER LOADING, FRONT FRAME	1		C16644A
5	DECAL, FUNCTION VALVE	1		32156
6	DECAL, SERIAL#, "CE" UNIVERSAL	1		32-10-166

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

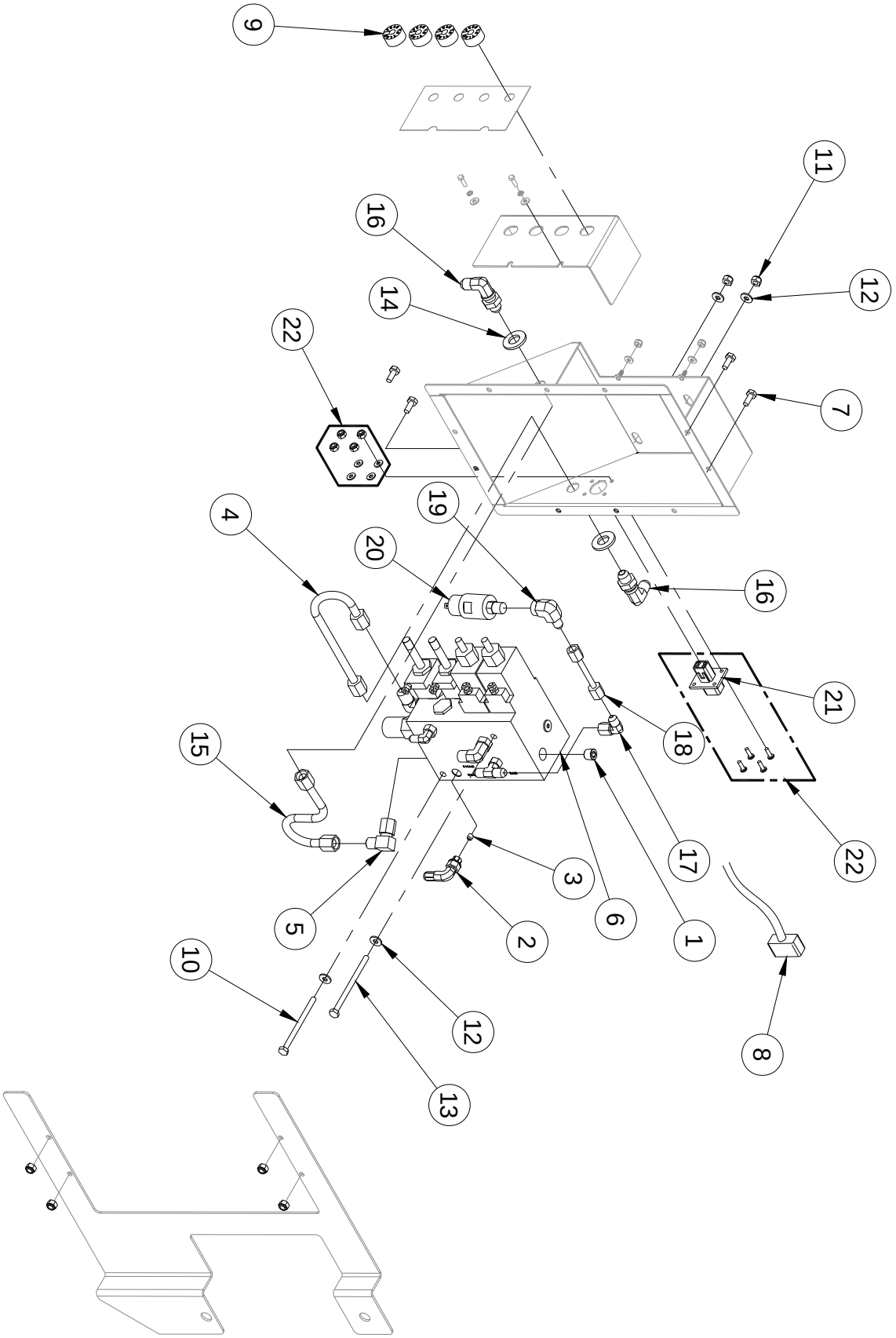


FIGURE 4-2: MANIFOLD ASSEMBLY (SSBF3761-1)

FIGURE 4-2: BAYLIFT MANIFOLD ASSEMBLY

FIG. ITEM	DESCRIPTION	QTY	CONFIG.	PART NO.
1	PLUG, 1/4 HEX PIPE	1		31242
2	FITTING, ADAPTOR, 90, WITH 1/4-20 THREAD	1		31239
3	SCREW, HSS, 1/4-20 X 1/4 WITH .04 HOLE	1		31240
4	TUBE, PRESSURE CONTROL BOX ASSEMBLY	1		B16667B
5	FITTING, ADAPTOR, 90, SAE	1		31681
6	MANIFOLD WITH INT REL	1		C16643B
7	SCREW, HEX, 1/4-20 X 5/8 SST (BAG OF 10)	4		13306
8	HARNESS, PUMP CONTROL	1		B16691A
9	KNOB F/OVERRIDE MANUAL	4		10159-19
10	SCREW, HEX,1/4-20 X 3 1/2 SST (BAG OF 10)	1		13392
11	NUT, ESN, 1/4-20, SST, (BAG OF 10)	6		13392
12	WASHER, FLT, .281 X .625 X .065 SST (BAG OF 10)	4		13398
13	SCREW, HEX, 1/4-20 X 3 3/4, GR8, BLK (BAG OF 10)	1		34576
14	WASHER, FLT, .598 X 1.187 X .118, ZINC YELLOW (BAG OF 10)	2		25783
15	TUBE ASSEMBLY, RETURN	1		B16735A
16	FITTING, ADAPTOR, 90, SAE	2		31676
17	FITTING, ADAPTOR, 90, NPTF, SAE	1		31666
18	TUBE ASSEMBLY, PRESSURE SWITCH	1		B16669A
19	FITTING, ADAPTOR, 90, NPT, SAE	1		31670
20	SWITCH, PRESSURE, 500PSI	1		XM-1C-500R/QC
21	HARNESS, HYDRAULIC, CONTROL BOX TO PUMP (SEE 36907)	REF		B16690B
22	KIT, HARNESS HYDRAULIC, CONTROL BOX TO PUMP	4		36907

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

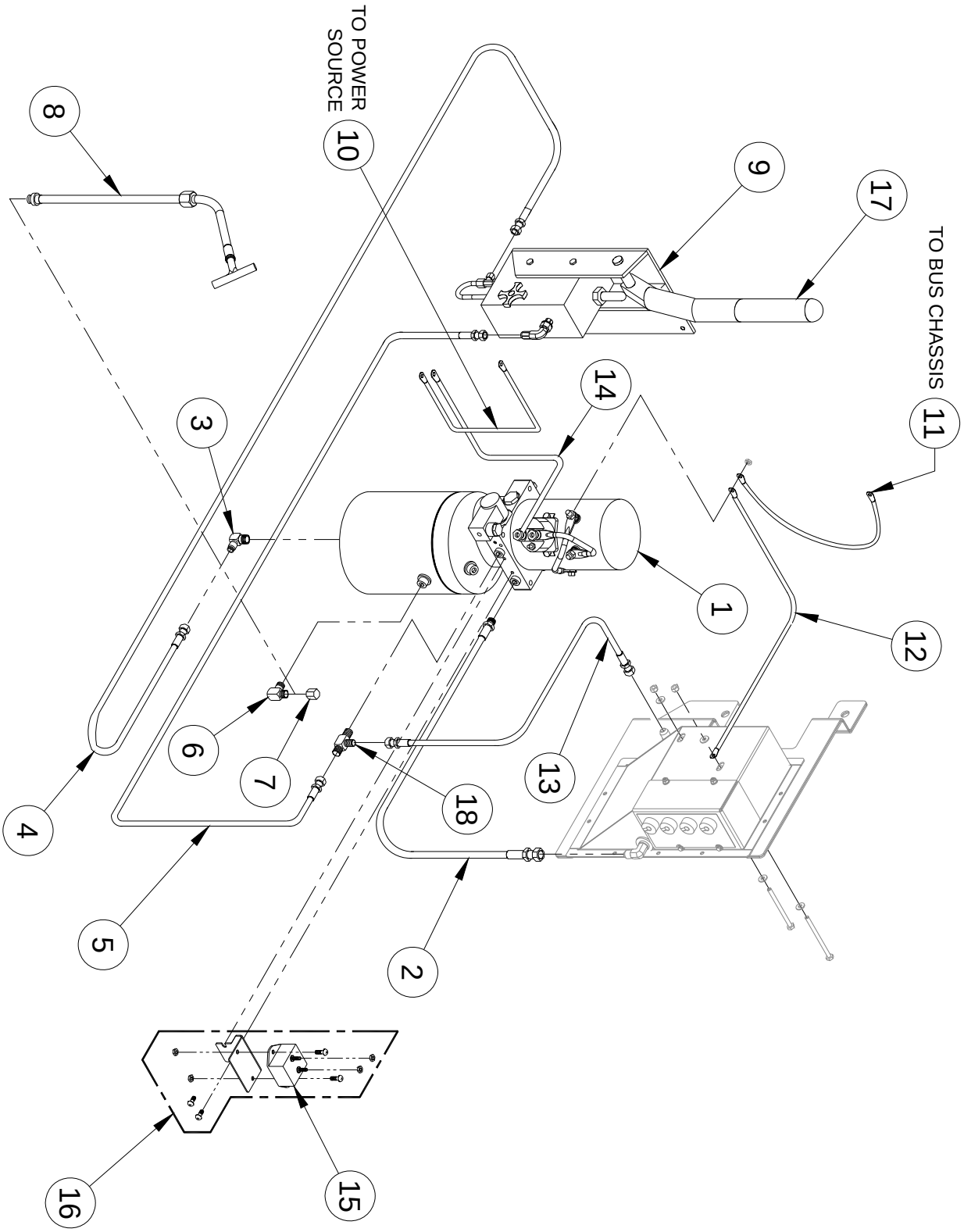


FIGURE 4-3: PUMP ASSEMBLY

FIGURE 4-3: PUMP ASSEMBLY (SSBF3761-1)

FIG. ITEM	DESCRIPTION	QTY	CONFIG.	PART NO.
1	PUMP, 24V, 1.5 GALLON RESERVOIR	1		35417
2	HOSE ASSEMBLY	1		H16648-2A
3	FITTING, ADAPTOR 90, NPTF, SAE, -6M, -4M, STL	1		31667
4	HOSE ASSEMBLY	1		H16701-9A
5	HOSE ASSEMBLY	1		H16648-6A
6	FITTING, CAP, SAE, -8, STL	1		31653
7	FITTING, ADAPTOR 90, NPTF, SAE, -6M, -8M, STL	1		31669
8	DIP STICK ASSEMBLY	1		C16687A
9	PUMP ASSEMBLY, MANUAL	1		C15379H
10	CABLE ASSEMBLY, BATTERY, HOT MOTOR	1		B16696C
11	CABLE, CHASSIS	1		B16695C
12	CABLE ASSEMBLY, BATTERY, 20”	1		45599
13	HOSE ASSEMBLY	1		H16648-1A
14	CABLE ASSEMBLY, MOTOR, 8”	1		B15512C
15	CIRCUIT BREAKER	1		B13124
16	KIT, CIRCUIT BREAKER, W/HDWR	1		36908
17	CAP, .875 X 4.5, YELLOW	1		B15538
18	FITTING, ADAPTOR-T, NPTF, SAE, -6M, STL	1		45558
19 *	POWER STEERING FLUID	5.5 QT		20-16-051

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

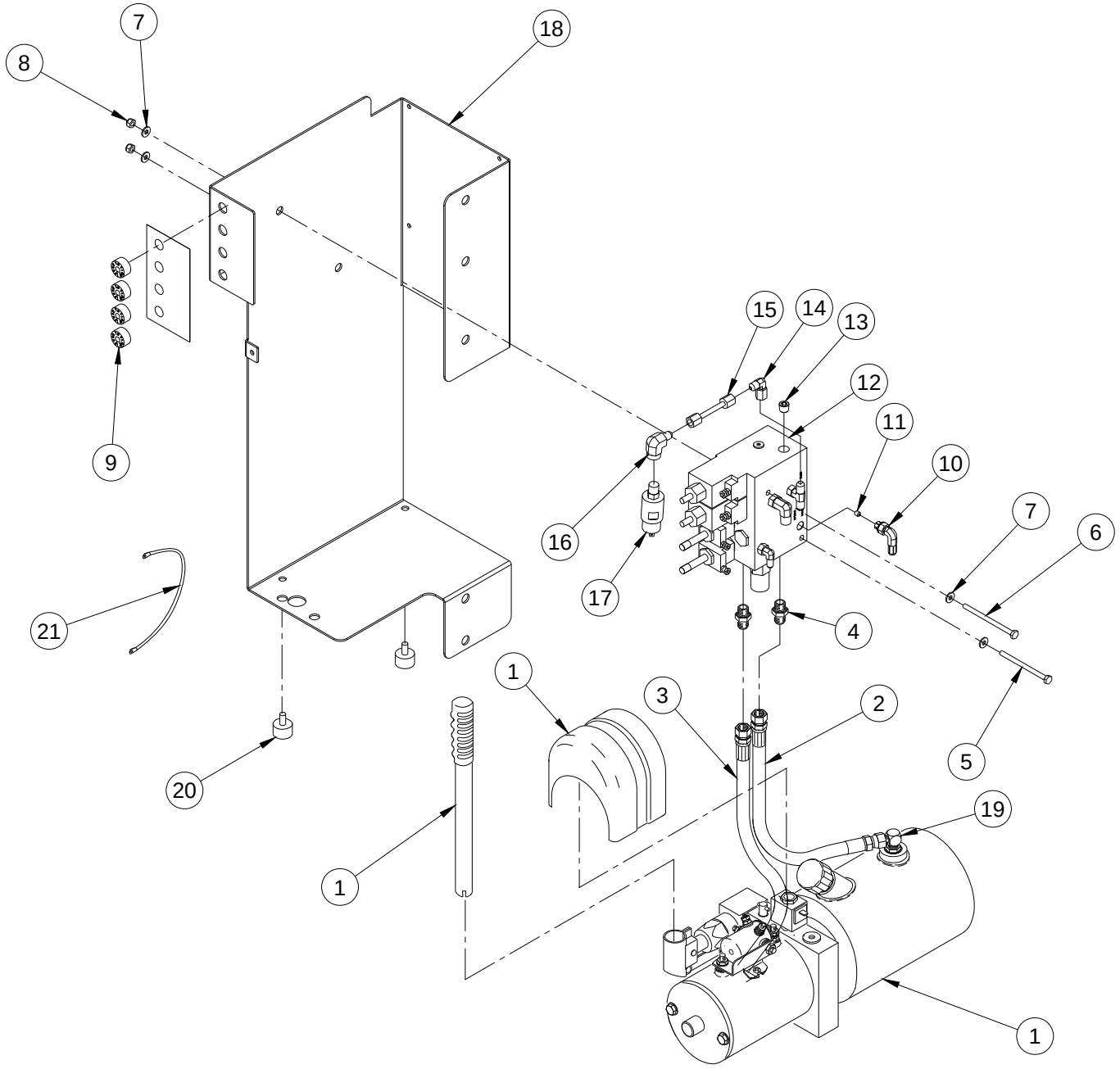


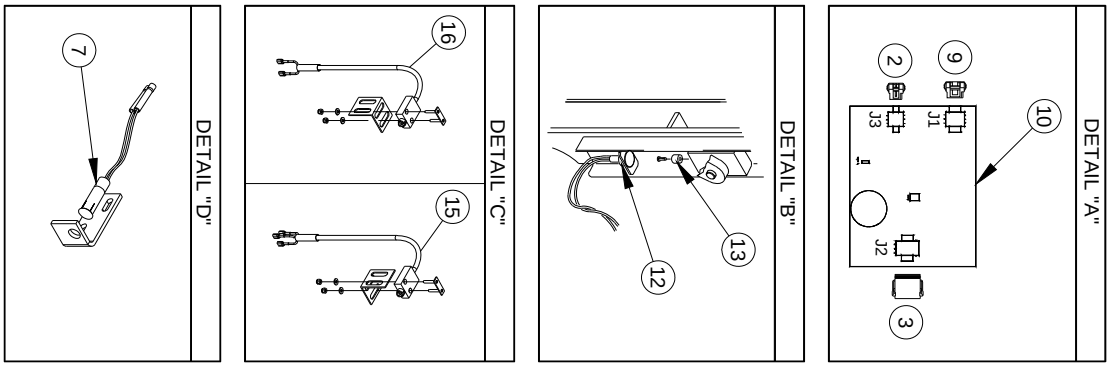
FIGURE 4-4: MANIFOLD & PUMP ASSEMBLY

FIGURE 4-4: MANIFOLD & PUMP ASSEMBLY

FIG. ITEM	DESCRIPTION	QTY	CONFIG.	PART NO.
1	PUMP AND MOTOR ASSEMBLY, 24V	1		M3519-0124-0002
2A	HOSE ASSEMBLY	1	*SSBF3759-1*	37508
	HOSE ASSEMBLY	1	*SSBF3761-3*	37508
2B *	HOSE ASSEMBLY	1	*SSBF3761-3R*	H16701-2R
2C *	HOSE ASSEMBLY *(SUPERSEDED)*	2	*SSBF3354-D*	H16701-2A
2D *	HOSE ASSEMBLY	1	*SSBF3761-4*	H16701-1A
3A *	HOSE ASSEMBLY	1	*SSBF3759-1*	37510
*	HOSE ASSEMBLY	1	*SSBF3761-3*	37510
3B *	HOSE ASSEMBLY	1	*SSBF3761-3R*	H16701-1P
3C *	HOSE ASSEMBLY	1	*SSBF3761-4*	H16701-2R
4	ADAPTER, ORB, 6XJIC, 6 STL	2		17209
5	SCREW, HEX, ¼-20 X 3 ½ SST (BAG OF 10)	1		13392
6	SCREW, HEX, ¼-20 X 3 ¾, GR8, BLK (BAG OF 10)	1		34576
7	WASHER, FLT, .281 X .625 X .065 SST (BAG OF 10)	4		13398
8	NUT, ESN, 10-24 SST (BAG OF 10)	2		14414
9	KNOB F/OVERRIDE MANUAL	4		10159-19
10	FITTING, ADAPTOR, 90, WITH ¼-20 THREAD	1		31239
11	SCREW, HSS, ¼-20 X ¼ WITH .04 HOLE	1		31240
12	MANIFOLD	1		C16643B
13	PLUG,1/4 HEX PIPE (BAG OF 10)	1		25781
14	FITTING, ADAPTOR, 90, NPTF. SAE	1		31666
15	TUBE ASSEMBLY, PRESSURE SWITCH	1		B16669A
16	FITTING, ADAPTOR, 90, NPT, SAE	1		31670
17	SWITCH, PRESSURE. 500PSI	1		XM-1C-500R/QC
18A	KIT, MOUNT, HYDRAULIC, LH	1	*SSBF3354-D*	45585
18B	MOUNT, HYDRAULIC, LH	1	*SSBF3759-1*	37506
	MOUNT, HYDRAULIC, LH	1	*SSBF3759-3*	37506
	MOUNT, HYDRAULIC, LH	1	*SSBF3761-3*	37506
18C*	KIT, MOUNT, HYDRAULIC, RH	1	*SSBF3761-3R*	45586
18D*	MOUNT, HYDRAULIC, LH	1	*SSBF3761-4*	C16971A
19	FITTING, ADAPTOR, 90, SAE	2		31681
20	VIBRATION MOUNT	2		VBM3010
21	CABLE ASSEMBLY, BATTERY, 20”	1		45599
22 *	POWER STEERING FLUID	5.5 QT		20-16-051

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.



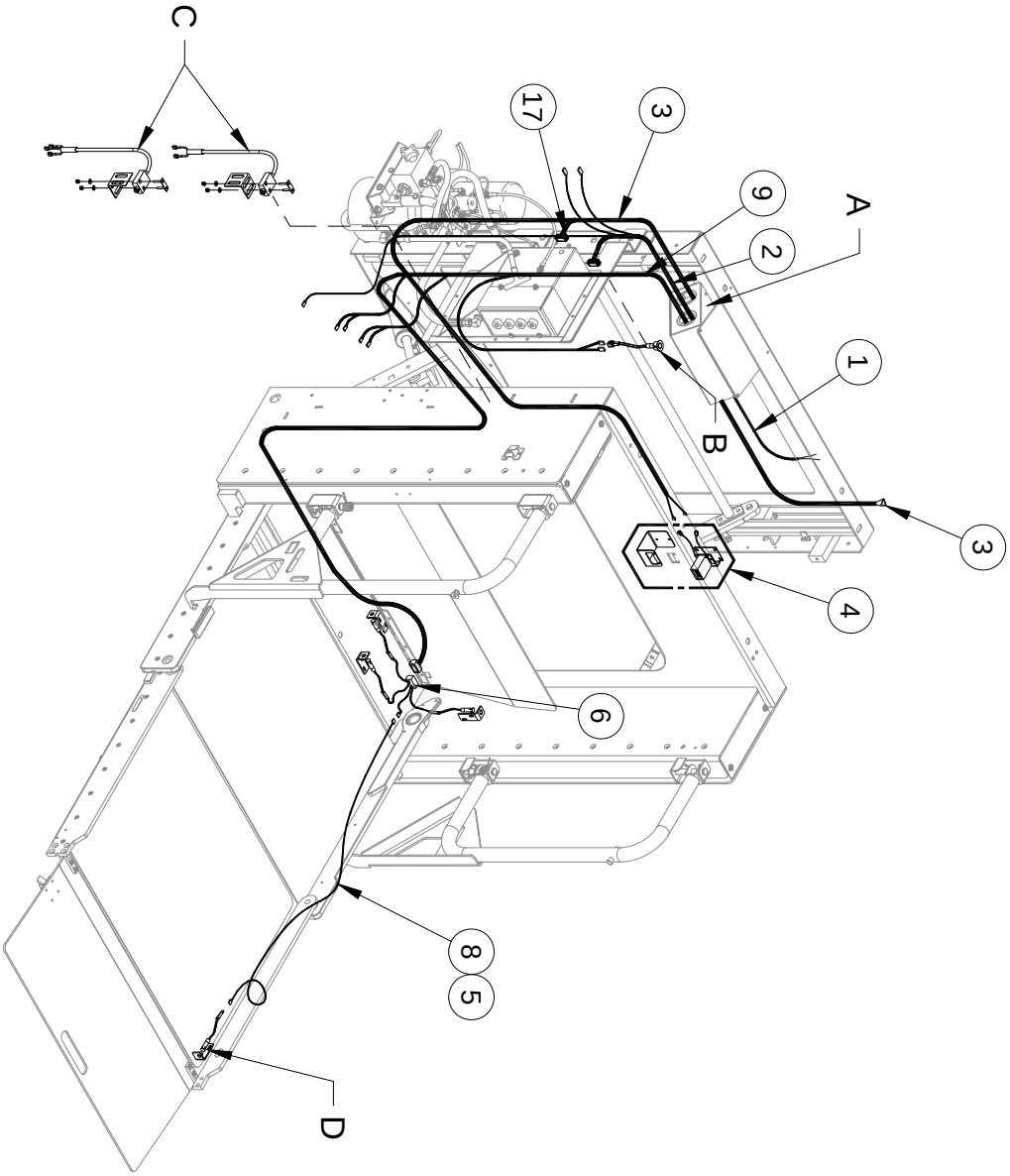


FIGURE 4-5: ELECTRICAL COMPONENTS

FIGURE 4-5: ELECTRICAL COMPONENTS				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
1	HARNESS, SUPPLEMENTAL BUS DOOR SOLENOID	1	*SSBF3761-1*	B16729A
2	HARNESS ASSY, CONTROLLER TO PENDANT, SBF DOOR LOCK	1		33627
3A	HARNESS, CONTROLLER	1	*SSBF3761-1*	32735
*	HARNESS, CONTROLLER	1	*SSBF3761-2*	32735
*	HARNESS, CONTROLLER	1	*SSBF3761-3*	32735
3B *	HARNESS, CONTROLLER	1	*SSBF3354-D*	32748
*	HARNESS, CONTROLLER	1	*SSBF3759-1*	32748
*	HARNESS, CONTROLLER	1	*SSBF3759-3*	32748
*	HARNESS, CONTROLLER	1	*SSBF3761-3R*	32748
*	HARNESS, CONTROLLER	1	*SSBF3761-4*	32748
4	KIT, COUNTER ASSEMBLY, W/HDWR	1		36906
5	COVER, S/S ARMOR CABLE	1		45545
6	HARNESS, POSITION SWITCHES	1		32739
7	MICRO SWITCH ASSEMBLY	4		PS-S20-6-GT
8	CABLE, 24GA, MICROPHONE	REF		31538
9	HARNESS, LOCATION SWITCHES	1		32737
10A	CONTROLLER ASSEMBLY	1	*SSBF3354-D*	33468
	CONTROLLER ASSEMBLY	1	*SSBF3759-1*	33468
	CONTROLLER ASSEMBLY	1	*SSBF3759-3*	33468
	CONTROLLER ASSEMBLY	1	*SSBF376-2*	33468
	CONTROLLER ASSEMBLY	1	*SSBF376-3*	33468
	CONTROLLER ASSEMBLY	1	*SSBF376-3R*	33468
	CONTROLLER ASSEMBLY	1	*SSBF376-4*	33468
10B*	CONTROLLER ASSEMBLY	1	*SSBF376-1*	33452
11	KIT, THRESHOLD WARNING SYSTEM	1		32885
12	MICRO SWITCH ASSEMBLY	1		PS-S80-6-GT
13	MAGNET	1		MM-400
14	HARNESS, TWS EXTENSION	1		45549
15	STOW SWITCH ASSEMBLY LOWER	1		B16722A
16	STOW SWITCH ASSEMBLY UPPER	1		B16721A
17	MOUNTING, BRACKET, DT SERIES	1		17865

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

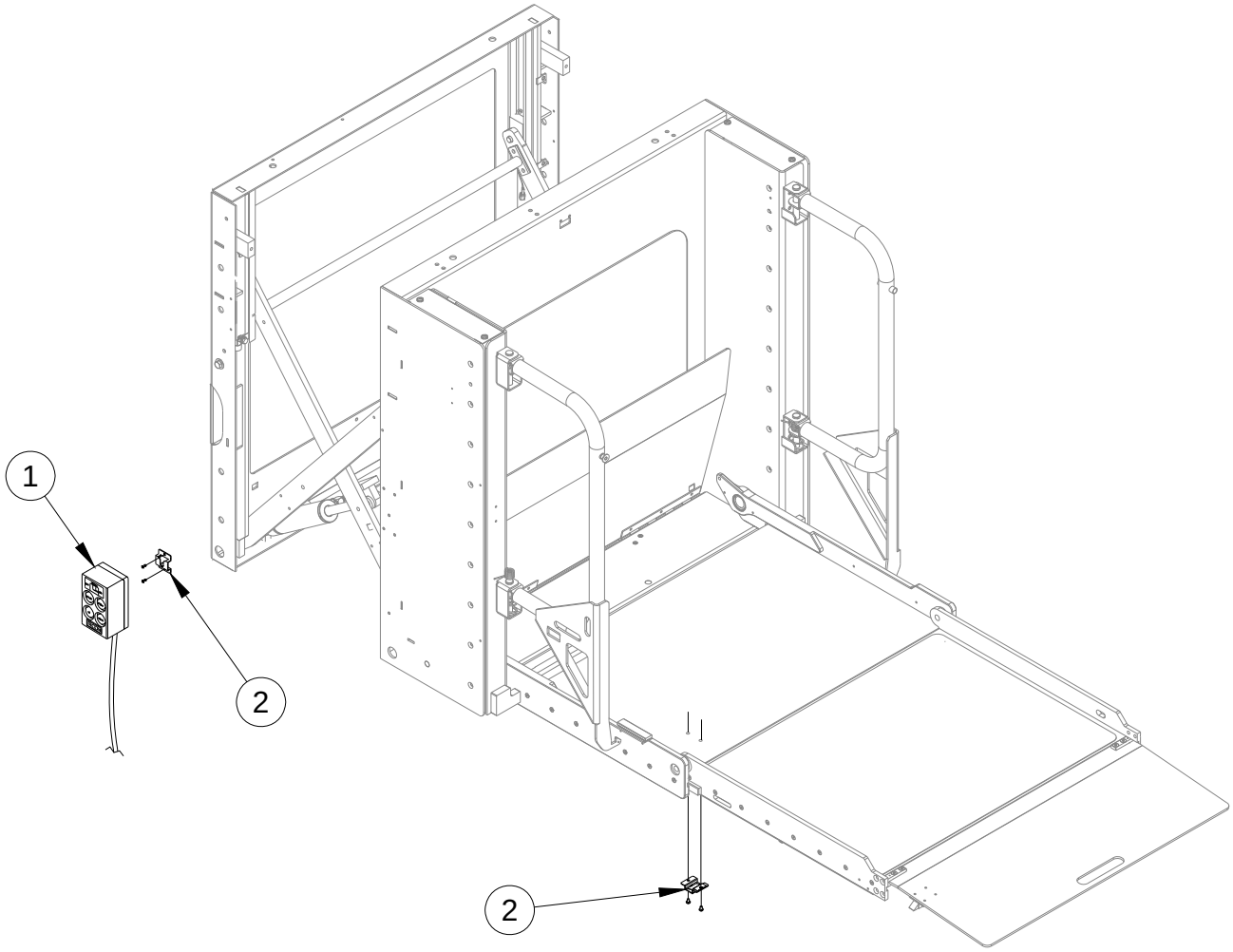


FIGURE 4-6: ELECTRICAL COMPONENTS

FIGURE 4-6: PENDANT ASSEMBLY				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
1	PENDANT ASSEMBLY *(SUPERSEDED 33628)*	1		44856
2	KIT, INSTALLATION, PENDANT, MIC	2		33021
3 *	HARNESS, EXT, PENDANT,100" L	1		55655
END OF TABLE				

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

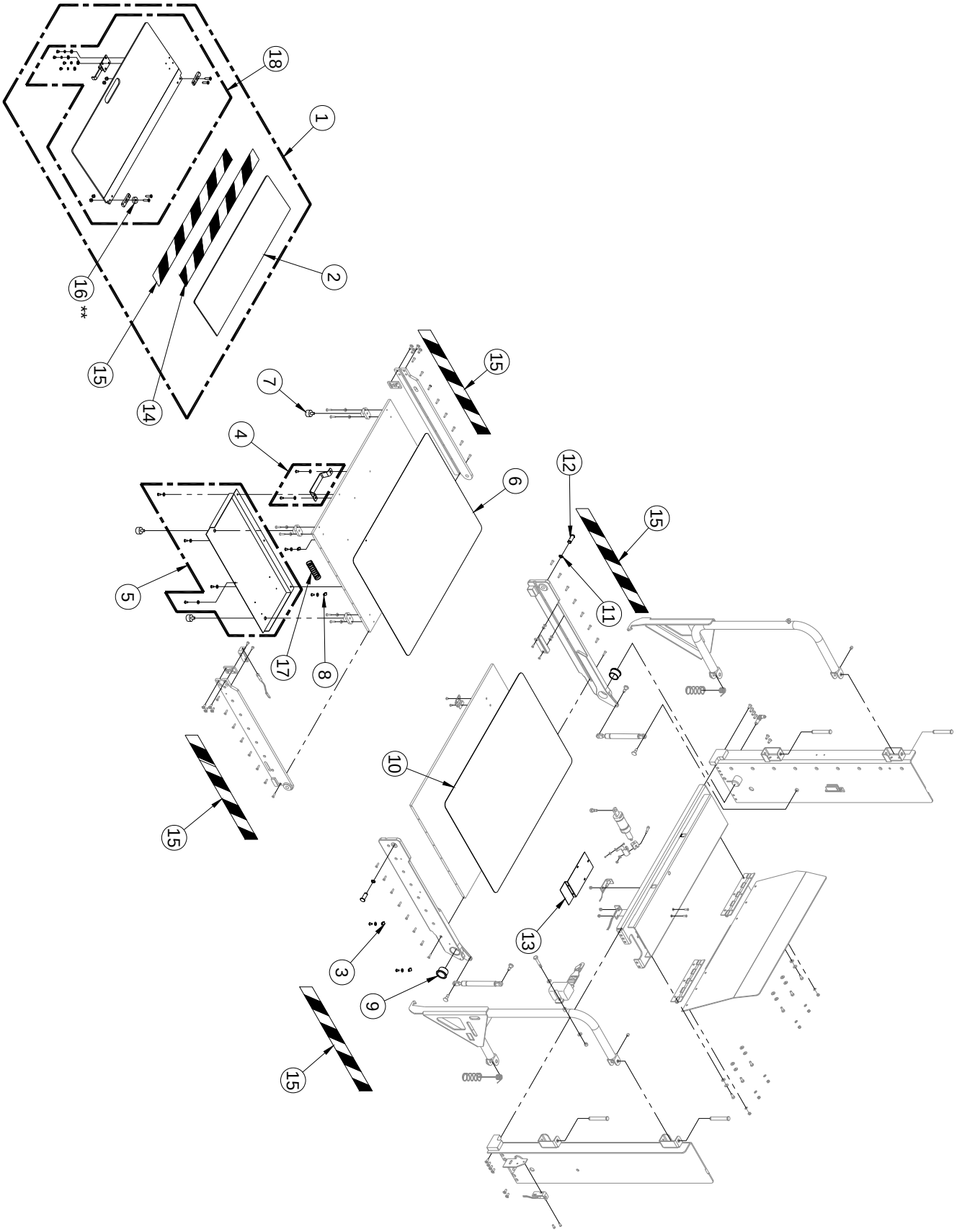


FIGURE 4-7: PLATFORM ASSEMBLY SHEET 1

FIGURE 4-7: PLATFORM ASSEMBLY SHEET 1				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
1	KIT, FRONT BARRIER ASSEMBLY	1		36909
2	ANTI SKID, FRONT BARRIER	1		B16325A
3	CLAMP, CABLE 1/4” (BAG OF 10)	2		25785
4	KIT, HANDLE, W/HDWR	1		36910
5	KIT, COVER WITH LIP, W/HDWR	1		36911
6	ANTI SKID, FRONT PLATFORM	1		B16323A
7	VIBRATION MOUNT	4		VBM3010
8	CLAMP, CABLE 3/8” (BAG OF 10)	2		19777
9	BUSHING, FLANGED, 1.50 OD X 1.25 ID X 1.00LG (KIT OF 2)	1		36912
10	ANTI SKID, MAIN PLATFORM	1		B16322A
11	SNAPRING, 1/2”, ” (BAG OF 10)	2		14461
12	PIN	2		B16686A
13	COVER, WIRE CONNECTION	1		32585
14	ANTI SKID TAPE, YELLOW/BLACK 2”	2.3 FT		31696
15	TAPE, SAFETY, YELLOW/BLACK 2”	9 FT		25787
16 **	MAGNET	1		MM-400
17	SPRING, CABLE RETURN	1		55650
18	KIT, FRONT BARRIER ASSEMBLY	1		36909

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

NOTE: ** PART NOT INCLUDED WITH ASSEMBLY #C16540B

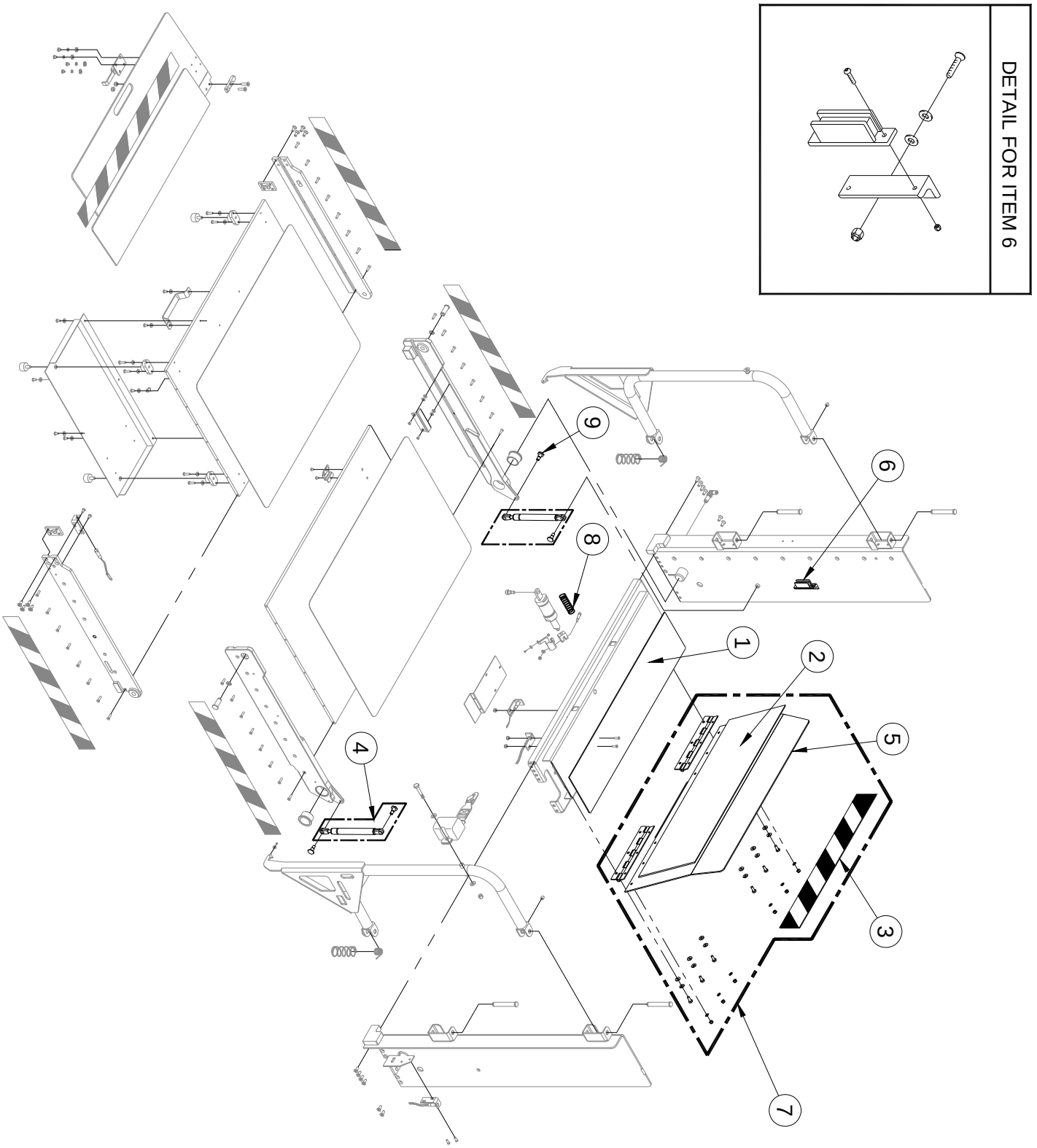


FIGURE 4-8: PLATFORM ASSEMBLY SHEET 2

FIGURE 4-8: PLATFORM ASSEMBLY SHEET 2				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
1	ANTI SKID, MAIN CHANNEL	1		B16324A
2A	ANTI SKID, REAR BARRIER	1	*SSBF3354-D*	B16953B
	ANTI SKID, REAR BARRIER	1	*SSBF3759-1*	B16953B
	ANTI SKID, REAR BARRIER	1	*SSBF3761-3*	B16953B
2B	ANTI SKID, REAR BARRIER	1	*SSBF3759-3*	B16326A
	ANTI SKID, REAR BARRIER	1	*SSBF3761-2*	B16326A
	ANTI SKID, REAR BARRIER	1	*SSBF3761-3R*	B16326A
	ANTI SKID, REAR BARRIER	1	*SSBF3761-4*	B16326A
2C	ANTI SKID, REAR BARRIER	1	*SSBF3761-1*	B16326A
3	ANTISKID TAPE, YELLOW/BLACK 2”	2.3 FT		31696
4	KIT, GAS SPRING, W/SHOULDER BOLT	2		29391
5A	REAR BARRIER	REF	*SSBF3354-D*	C16843C
	REAR BARRIER	REF	*SSBF3759-1*	C16843C
	REAR BARRIER	REF	*SSBF3761-3*	C16843C
5B *	REAR BARRIER	REF	*SSBF3759-3*	C16378C
*	REAR BARRIER	REF	*SSBF3761-2*	C16378C
*	REAR BARRIER	REF	*SSBF3761-3R*	C16378C
5C *	REAR BARRIER	1	*SSBF3761-1*	D16553A
5D *	REAR BARRIER	REF	*SSBF3761-4*	C16970A
6	KIT, MAGNET, PLATFORM, W/HDWR	1		36913
7A	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3354-D*	33678
	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3759-1*	33678
	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3761-3*	33678
7B *	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3759-3*	36900
*	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3761-2*	36900
*	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3761-3R*	36900
7C *	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3761-1*	36901
7D *	KIT, REAR BARRIER ASSEMBLY	1	*SSBF3761-4*	36902
8	SPRING, EXTENSION	1		31241
9	SCREW, SSS, 3/8 X 3/8, SST (BAG OF 10)	2		14418

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

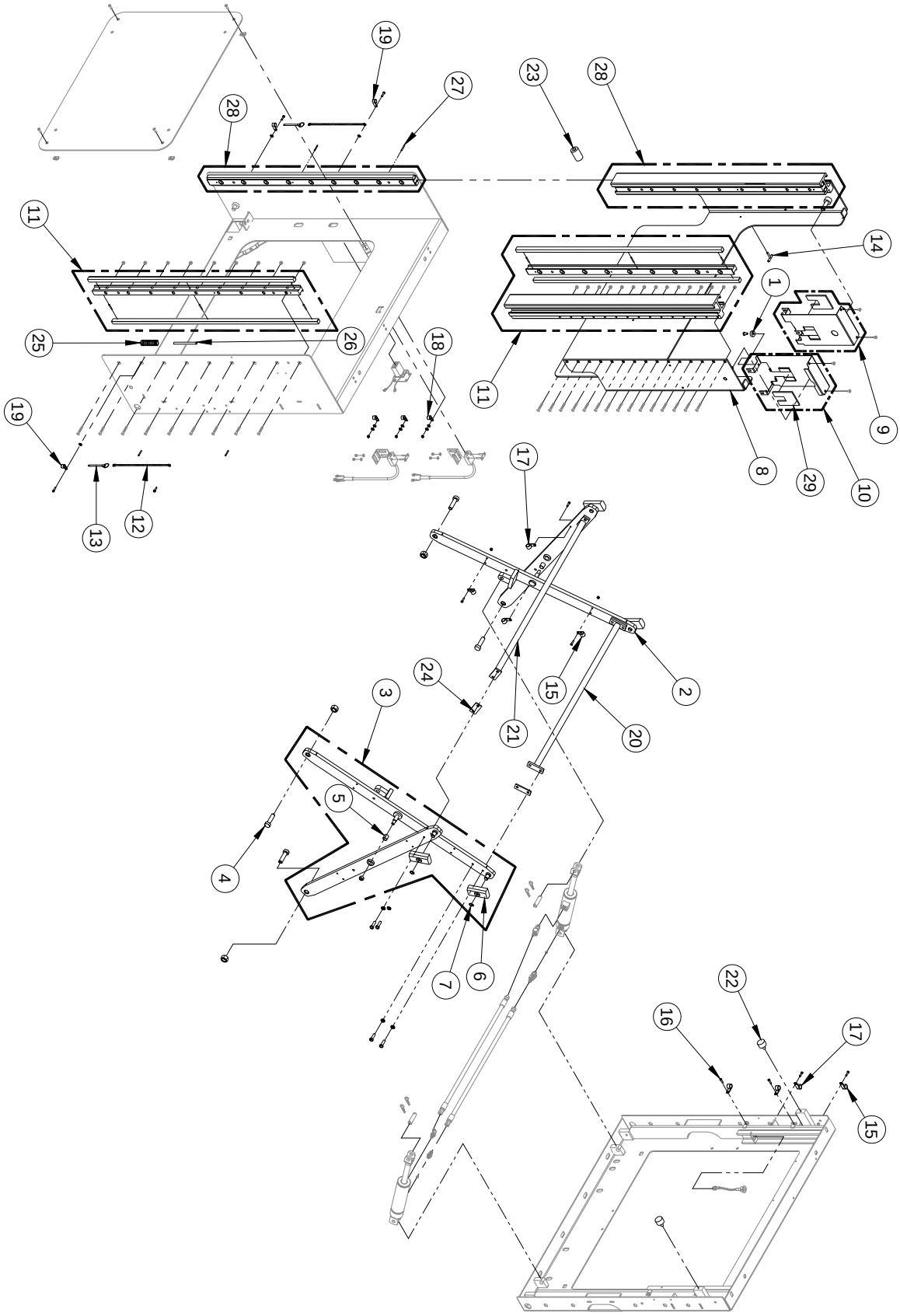


FIGURE 4-9: EXTEND/LIFT MECHANISM ASSEMBLY

FIGURE 4-9: EXTEND/LIFT MECHANISM ASSEMBLY				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
1	MAGNET	1		MM-400
2A	EXTENSION ARM ASSEMBLY, REAR, LH	1	*SSBF3759-1*	C16778A
	EXTENSION ARM ASSEMBLY, REAR, LH	1	*SSBF3759-3*	C16778A
	EXTENSION ARM ASSEMBLY, REAR, LH	1	*SSBF3761-3*	C16778A
2B *	EXTENSION ARM ASSEMBLY, REAR, LH	1	*SSBF3761-1*	C16952A
*	EXTENSION ARM ASSEMBLY, REAR, LH	1	*SSBF3761-2*	C16952A
*	EXTENSION ARM ASSEMBLY, REAR, LH	1	*SSBF3761-3R*	C16952A
*	EXTENSION ARM ASSEMBLY, REAR, LH	1	*SSBF3761-4*	C16952A
3A	EXTENSION ARM ASSEMBLY, REAR, RH	1	*SSBF3759-1*	C16779A
	EXTENSION ARM ASSEMBLY, REAR, RH	1	*SSBF3759-3*	C16779A
	EXTENSION ARM ASSEMBLY, REAR, RH	1	*SSBF3761-3*	C16779A
3B *	EXTENSION ARM ASSEMBLY, REAR, RH	1	*SSBF3761-1*	C16593A
*	EXTENSION ARM ASSEMBLY, REAR, RH	1	*SSBF3761-2*	C16593A
*	EXTENSION ARM ASSEMBLY, REAR, RH	1	*SSBF3761-3R*	C16593A
*	EXTENSION ARM ASSEMBLY, REAR, RH	1	*SSBF3761-4*	C16593A
3C *	EXTENSION ARM ASSEMBLY	2	*SSBF3354-D*	36362
4	SHOULDER BOLT, EXTENSION ARMS	4		B16943A
5	BUSHING, BRONZE	2		SS1620-16
6	SLIDE BEARING, EXTENSION ARMS	4		B16949A
7	SNAP RING 3/4” (BAG OF 10)	4		14461
8A	PANEL, INTERMEDIATE	1		C16484E
8B	PANEL, INTERMEDIATE	1	*SSBF3354-D*	36377
9A	COVER ASSEMBLY, CYLINDER, INTERMEDIATE, LH	1		33445
9B	COVER ASSEMBLY, CYLINDER, INTERMEDIATE, LH	1	*SSBF3354-D*	36395
10A	COVER ASSEMBLY, CYLINDER, INTERMEDIATE, RH	2		33330
10B	COVER ASSEMBLY, CYLINDER, INTERMEDIATE, RH	2	*SSBF3354-D*	36397
11A	EXTRUSION, V-SLIDE, RH	1		C16488B
11B	EXTRUSION, V-SLIDE, RH	1	*SSBF3354-D*	36370
12	CHAIN, BEAD LANYARD	2		55651
13	PIN, QUICK-RELEASE, ¼ DIA X 3” LG	2		31685
14	T-BOLT, MICRO SWITCH, INTERMEDIATE	1		B16948A
15	CLAMP 5/8” (BAG OF 10)	3		36914
16	CLAMP 1/2” (BAG OF 10)	2		34560
17	CLAMP 3/8” (BAG OF 10)	3		36915
18	CLAMP, CABLE 3/8”	3		34599
19	CLAMP, CABLE 3/16” (BAG OF 10)	3		19777
20	BRACKET, REAR	1		C15155D-1993
21	BRACKET, FRONT	1		C15154D-1993

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

FIGURE 4-9: EXTEND/LIFT MECHANISM ASSEMBLY				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
22	VIBRATION MOUNT	2		VBM3010
23	BUMPER, GUIDE, BRIDGEPLATE	1	*SSBF3761-1*	29115
	BUMPER, GUIDE, BRIDGEPLATE	1	*SSBF3761-2*	29115
	BUMPER, GUIDE, BRIDGEPLATE	1	*SSBF3761-4*	29115
24	SPACER	4		29135
25	SPRING	1		31601
26	TUBE, SLEEVE, CABLE	2		31637
27	ROLLPIN, 1/4 X 1	8		31697
28A	EXTRUSION, V-SLIDE, LH	1		C16487B
28B	EXTRUSION, V-SLIDE, LH	1	*SSBF3354-D*	36369
29	COVER, GATE CYLINDER	2		31692

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

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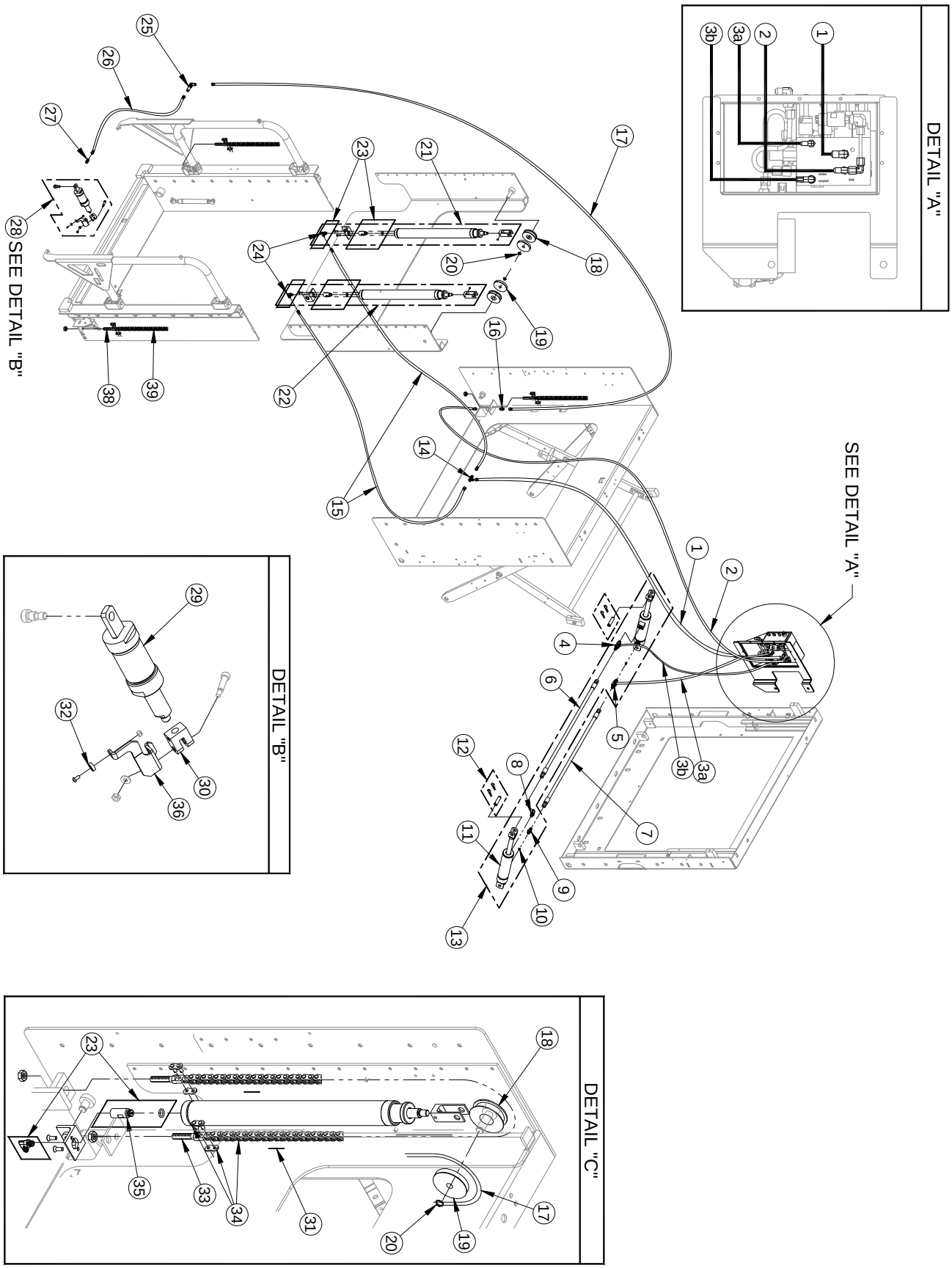

FIGURE 4-10: HYDRAULIC ASSEMBLY

FIGURE 4-10: HYDRAULIC ASSEMBLY				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
1A	HOSE ASSEMBLY (LEFT HAND SIDE PUMP)	1		H16701-4A
1B	HOSE ASSEMBLY (RIGHT HAND SIDE PUMP)	1		H16701-4B
2	HOSE ASSEMBLY	1		H16701-3A
3	HOSE ASSEMBLY	2		H16701-5A
4	FITTING, MALE JIC X MALE SAE-4, TEE	1		32813
5	FITTING, MALE JIC, MALE SAE-4, ORIFICE	1		32810
6	HOSE ASSEMBLY	1		55669
7	HOSE ASSEMBLY	1		H16701-9A
8	FITTING, MALE JIC, MALE SAE-4, 45 DEGREE	1		32812
9	FITTING, MALE JIC, MALE SAE-4, ORIFICE	1		32811
10	ORIFICE, 0.043 DIA., SCREW, HSS	2		15351
11	CYLINDER ASSEMBLY, FOLDING (SEE 32851)	REF		32815
12	KIT, PIN, CLEVIS CYLINDER, SCISSOR	1		29148
13	KIT, CYLINDER ASSEMBLY WITH FITTINGS	1		32851
14	FITTING, ADAPTOR-T, SAE, -6M, STL	1		31677
15	HOSE ASSEMBLY	2		H16701-6A
16	FITTING, ADAPTOR, STRAIGHT, SAE, -4M, STL	1		31675
17A	HOSE ASSEMBLY	1	*SSBF3354-D*	36398
17B	HOSE ASSEMBLY	1	*SSBF3759-1*	33327
	HOSE ASSEMBLY	1	*SSBF3759-3*	33327
	HOSE ASSEMBLY	1	*SSBF3761-1*	33327
	HOSE ASSEMBLY	1	*SSBF3761-2*	33327
	HOSE ASSEMBLY	1	*SSBF3761-3*	33327
	HOSE ASSEMBLY	1	*SSBF3761-3R*	33327
	HOSE ASSEMBLY	1	*SSBF3761-4*	33327
18	CHAIN PULLEY	2		B14812D
19	CABLE PULLEY	2		B16020C
20	SNAPRING, 1/2” (BAG OF 10)	2		14461
21A	CYLINDER ASSEMBLY, 26.5”, LH	1	*SSBF3354-D*	36384
21B	CYLINDER ASSEMBLY, 29”, LH	1	*SSBF3759-1*	C16842A
21C	CYLINDER ASSEMBLY, 30”, LH	1	*SSBF3759-3*	C16760A
	CYLINDER ASSEMBLY, 30”, LH	1	*SSBF3761-1*	C16760A
	CYLINDER ASSEMBLY, 30”, LH	1	*SSBF3761-2*	C16760A
	CYLINDER ASSEMBLY, 30”, LH	1	*SSBF3761-3*	C16760A
	CYLINDER ASSEMBLY, 30”, LH	1	*SSBF3761-3R*	C16760A
	CYLINDER ASSEMBLY, 30”, LH	1	*SSBF3761-4*	C16760A
21D	CYLINDER ASSEMBLY, 29.5”, LH	1	*SSBF3760-1R*	C16760A
	CYLINDER ASSEMBLY, 29.5”, LH	1	*SSBF3761-7R*	C16760A

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

FIGURE 4-10: HYDRAULIC ASSEMBLY				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
22A	CYLINDER ASSEMBLY, 26.5”, RH	1	*SSBF3354-D*	36385
22B	CYLINDER ASSEMBLY, 29”, RH	1	*SSBF3759-1*	C16841A
22C	CYLINDER ASSEMBLY, 30”, RH	1	*SSBF3759-3*	C16490A
	CYLINDER ASSEMBLY, 30”, RH	1	*SSBF3761-1*	C16490A
	CYLINDER ASSEMBLY, 30”, RH	1	*SSBF3761-2*	C16490A
	CYLINDER ASSEMBLY, 30”, RH	1	*SSBF3761-3*	C16490A
	CYLINDER ASSEMBLY, 30”, RH	1	*SSBF3761-3R*	C16490A
	CYLINDER ASSEMBLY, 30”, RH	1	*SSBF3761-4*	C16490A
22D	CYLINDER ASSEMBLY, 29.5”, RH	1	*SSBF3760-1R*	44984
	CYLINDER ASSEMBLY, 29.5”, RH	1	*SSBF3761-7R*	44984
23	KIT, FITTINGS, CYLINDER ASSEMBLY	2		36904
24	ADAPTOR-L 7/16M, 7/16M, 90 ORB/JIC 1.03 X .89	2		V2-SH-011
25	FITTING, BUL, 1/4 J, STL	1		V2-SH-98
26	HOSE ASSEMBLY, HYDRAULIC, 17” X 1/4 JIC X 1/4 JIC	1		VS-SH-09
27	FITTING, ADAPTOR STRAIGHT, ORB, SAE, -4MM, STL	1		31678
28	KIT, CYLINDER, BARRIER	1		32400
29	CYLINDER ASSEMBLY, PLATFORM REAR	1		31289
30	CLEVIS, PRB CYLINDER	1		B16390C
31	PIN, COTTER (BAG OF 10)	4		25786
32	MAGNET	1		MM-400
33	BOLT, CHAIN ADJUSTMENT	4		B14929D
34A	CHAIN, LEAF, BL423, 113 LINKS W/2 MSTR LINK	2	*SSBF3354-D*	36392
34B	CHAIN, LEAF, BL423, 129 LILNKS W-2 MSTR LINK	2		45546
35	FITTING, CYLINDER	2		45548
36	BRACKET, SENSOR TARGET	1		32562

NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.

NOTE: * Item or configuration not shown.

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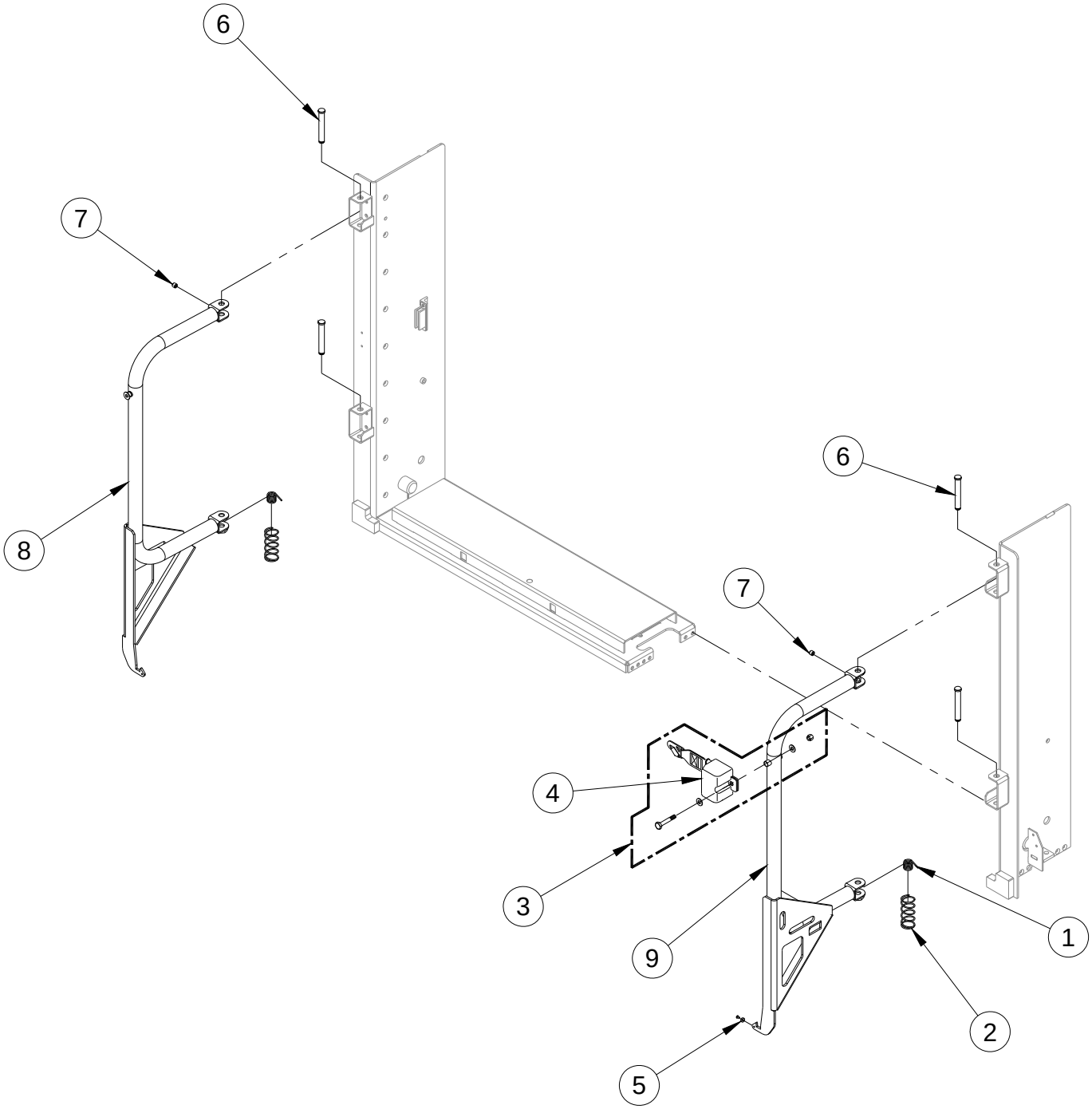


FIGURE 4-11: HANDRAIL ASSEMBLY

FIGURE 4-11: PUBLIC USE HANDRAILS ASSEMBLY				
FIG. ITEM	**DESCRIPTION**	**QTY**	**CONFIG.**	**PART NO.**
1	SPRING, TORSION	2		45547
2	SPRING, COMPRESSION, 1.064 ID X 1.234 OD	2		33311
3	KIT, SEAT BELT, W/HDWR	1		36919
4	SEAT BELT	1		TR-ALR
5	MAGNET	1		MM-400
6	PIN, HANDRAIL	4		33312
7	SCREW, HSS, 3/8-16 X 3/8, CUP PT (BAG OF 10)	2		11797
8A	HANDRAIL, LH	1		33301
8B	HANDRAIL, LH	1	*SSBF3354-D*	36380
9A	HANDRAIL, RH	1		33302
9B	HANDRAIL, RH	1	*SSBF3354-D*	36381

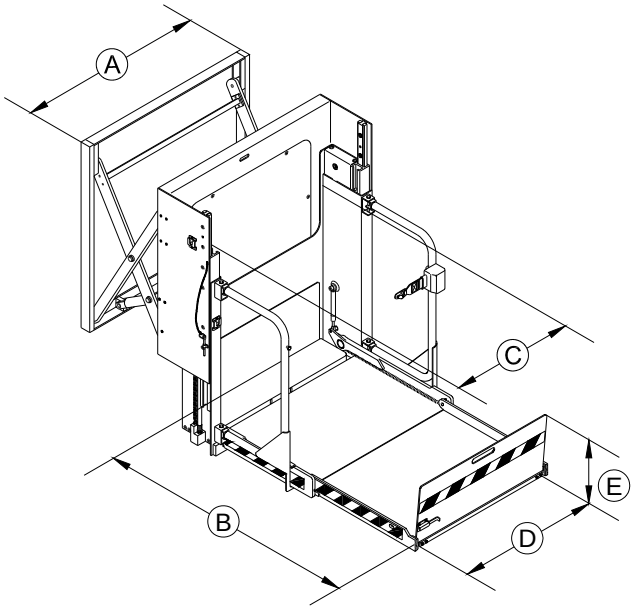
NOTE: (REF) in QTY column is for Referenced Parts Only and are not sold as spare parts.
NOTE: * Item or configuration not shown.

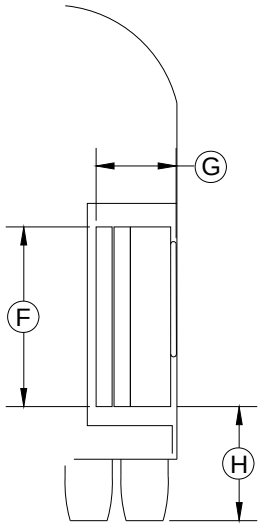
APPENDIX 1

LIFT SPECIFICATIONS

BAYLIFT PUBLIC USE WHEELCHAIR LIFT

Power ..... electro-hydraulic	Rated load capacity, max..... 590lbs
Motor rating @ 24 volts DC.....32.5 amp avg/cycle, 1250 psi	Manual backup-up ..... hand pump
Hydraulic cylinders .....2ea, 1.5", power up – gravity down	Manual backup-down.....pressure release valve
	Lift weight.....approx 600 lbs





DIMENSIONS (inches)

MODEL	A	B	C	D	E	F	G	H
	Stationary frame width	Usable platform length	Clear entry width	Usable platform width	Outer barrier height	Height (folded)	Installation depth (folded)	Floor-to-ground level
SSBF3354-D	39"	48"	29.75"	28.50"	12"	33"	18"	13.50
SSBF3759-1	39"	48"	29.75"	28.50"	12"	37"	18"	15.75"
SSBF3759-3	39"	48"	29.75"	28.50"	12"	37"	18"	15.75"
SSBF3761-1	39"	48"	29.75"	28.50"	12"	37"	18"	15.75"
SSBF3761-2	39"	48"	29.75"	28.50"	12"	37"	18"	15.75"
SSBF3761-3	39"	48"	29.75"	28.50"	12"	37"	18"	15.75"
SSBF3761-3R	39"	48"	29.75"	28.50"	12"	37"	18"	15.75"
SSBF3761-4	39"	48"	29.75"	28.50"	12"	37"	18"	15.75"