

 **WARNING**

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

REV C 03/21/08

 **CAUTION**
The safe operating temperature range for this product is 41° F. - 104 °F.

INSTALLATION AND OPERATION MANUAL

**6,000 POUND CAPACITY
LOW RISE LIFT
MODELS:
LR-60
LR-60P**

READ FIRST



Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual.



Keep this operation manual near the machine at all times. Make sure that ALL USERS read this manual.

SHIPPING DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Consequently, claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

BE SAFE

Your new lift was designed and built with safety in mind. However, your overall safety can be increased by proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.



1645 Lemonwood Dr.
Santa Paula, CA. 93060, USA
Toll Free 1-800-253-2363
Tel: 1-805-933-9970
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www.bendpak.com

6000 POUND CAPACITY LOW-RISE LIFT




This instruction manual has been prepared especially for you.
Your new lift is the product of over 35 years of continuous research, testing and development;
it is the most technically advanced lift on the market today.

READ THIS ENTIRE MANUAL BEFORE INSTALLATION & OPERATION BEGINS.

RECORD HERE THE LIFT AND
POWER UNIT INFORMATION WHICH IS
LOCATED ON THE SERIAL NUMBER
DATA PLATES ON THE LIFT AND
ON THE POWER UNIT

Power Unit Model # _____
Power Unit Date Of Mfg. _____
Power Unit Serial # _____

This information is required when
calling for parts or warranty issues.

	 <small>PROVIDING AUTOMOTIVE SERVICE SOLUTIONS</small>	
<small>1645 Lemonwood Dr, Santa Paula, CA 93360 USA Tel: 1-805-933-9970 Fax: 1-805-933-9160 www.bendpak.com</small>		
<small>Model No.</small>	<small>Lifting Capacity</small>	<small>Serial No.</small>
<small>Date of Mfg.</small>	<small>Power Unit No.</small>	<small>Voltage / Amperage</small>

PRODUCT WARRANTY

BendPak Low Rise Lifts are covered under warranty for one year on equipment structure, to be free of defects in material and workmanship. Power units, hydraulic cylinders, and all other assembly components such as turnplates, slip plates, cables, chains, valves, switches etc. are covered under warranty for one year against defects in material or workmanship under normal use. BendPak Inc. shall repair or replace at their option for the warranty period those parts returned to the factory freight prepaid which prove upon inspection to be defective. BendPak Inc. will pay labor costs for the first 12 months only on parts returned as previously described.

The warranty does not extend to...

- ◆ defects caused by ordinary wear, abuse, misuse, shipping damage, improper installation, voltage or lack of required maintenance;
- ◆ damages resulting from purchaser's neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) and/or other accompanying instructions supplied;
- ◆ normal wear items or service normally required to maintain the product in a safe operating condition;
- ◆ any component damaged in shipment;
- ◆ other items not listed but may be considered general wear parts;
- ◆ damage caused by rain, excessive humidity, corrosive environments or other contaminant's.

THESE WARRANTIES DO NOT EXTEND TO ANY COSMETIC DEFECT NOT INTERFERING WITH EQUIPMENT FUNCTIONALITY OR ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF A BENDPAK INC. PRODUCT OR THE BREACH OR DELAY IN PERFORMANCE OF THE WARRANTY.

**WARRANTY IS NOT VALID UNLESS
WARRANTY CARD IS RETURNED.**

IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures.

Never attempt to lift components without proper lifting tools such as a forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.

DEFINITIONS OF HAZARD LEVELS

Identify the hazard levels used in this manual with the following definitions and signal words:



DANGER

Watch for this symbol: It Means: Immediate hazards which will result in severe personal injury or death.



WARNING

Watch for this symbol: It Means: Hazards or unsafe practices which could result in severe personal injury or death.



CAUTION

Watch for this symbol: It Means: Hazards or unsafe practices which may result in minor personal injury, product or property damage.

OWNER'S RESPONSIBILITY

To maintain the lift and user safety, the responsibility of the owner is to read and follow these instructions:

- ◆ Follow all installation and operation instructions.
- ◆ Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State and Federal OSHA Regulations and Electrical Codes.
- ◆ Carefully check the lift for correct initial function.
- ◆ Read and follow the safety instructions. Keep them readily available for machine operators.
- ◆ Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- ◆ Allow unit operation only with all parts in place and operating safely.
- ◆ Carefully inspect the unit on a regular basis and perform all maintenance as required.
- ◆ Service and maintain the unit only with authorized or approved replacement parts.
- ◆ Keep all instructions permanently with the unit and all decals on the unit clean and visible.

BEFORE YOU BEGIN

Receiving:

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgement by the carrier of receipt in good condition of shipment covered by your invoice. If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation on the freight bill of the shorted or damaged goods. Do this for your own protection.

NOTIFY THE CARRIER AT ONCE if any hidden loss or damage is discovered after receipt and request the carrier to make an inspection. If the carrier will not do so, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

IT IS DIFFICULT TO COLLECT FOR LOSS OR DAMAGE AFTER YOU HAVE GIVEN THE CARRIER A CLEAR RECEIPT. File your claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping you process your claim does not make BendPak responsible for collection of claims or replacement of lost or damaged materials.

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**INSTALLER / OPERATOR
PLEASE READ AND FULLY
UNDERSTAND.
BY PROCEEDING YOU AGREE TO
THE FOLLOWING.**

◆ I have visually inspected the site where the lift is to be installed and verified the concrete to be in good condition and free of cracks or other defects. I understand that installing a lift on cracked or defective concrete could cause lift failure resulting in personal injury or death.

◆ I understand that a level floor is required for proper installation and level lifting.

◆ I understand that I am responsible if my floor is of questionable slope and that I will be responsible for all charges related to pouring a new level concrete slab if required and any charges.

◆ I understand that the lifts are supplied with concrete fasteners meeting the criteria of the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-1998, and that I will be responsible for all charges related to any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).

◆ I will assume full responsibility for the concrete floor and condition thereof, now or later, where the above equipment model(s) are to be installed.

◆ I understand that Bendpak lifts are designed to be installed in indoor locations only. Failure to follow installation instructions may lead to serious personal injury or death to operator or bystander or damage to property or lift.



Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.



Please read entire manual prior to installation. Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual. For additional copies or further information, contact:

BendPak Inc. / Ranger Products

1645 Lemonwood Dr.

Santa Paula, CA. 93060

1-805-933-9970

www.bendpak.com

**INSTALLER / OPERATOR
PROTECTIVE EQUIPMENT**

Personal protective equipment helps makes installation and operation safer, however, does not take the place of safe operating practices. Always wear durable work clothing during any installation and/or service activity. Shop aprons or shop coats may also be worn, however loose fitting clothing should be avoided. Tight fitting leather gloves are recommended to protect technician hands when handling parts. Sturdy leather work shoes with steel toes and oil resistant soles should be used by all service personnel to help prevent injury during typical installation and operation activities.

Eye protection is essential during installation and operation activities. Safety glasses with side shields, goggles, or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing worker protection. Consideration should also be given to the use of hearing protection if service activity is performed in an enclosed area, or if noise levels are high.



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OR YOURSELF AND OTHERS AND CAN CAUSE PERSONAL INJURY OR DEATH. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE.

INTRODUCTION

1. Carefully remove the crating and packing materials. **CAUTION!** Be careful when cutting steel banding material as items may become loose and fall causing personal harm or injury.

2. Check the voltage, phase and proper amperage requirements for the motor shown on the motor plate. Wiring should be performed by a certified electrician only.

IMPORTANT SAFETY INSTRUCTIONS

Read these safety instructions entirely!

IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as forklift or cranes.

Stay clear of any moving parts that can fall and cause injury.

1. **READ AND UNDERSTAND** all safety warning procedures before operating lift.

2. **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.

3. **KEEP WORK AREA CLEAN.** Cluttered work areas invite injuries.

4. Consider work area environment. Do not expose equipment to rain. **DO NOT** use in damp or wet locations. Keep area well lighted.

5. **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.

6. **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.

7. **DO NOT** override self-closing lift controls.

8. **REMAIN CLEAR** of lift when raising or lowering vehicle.

9. **CLEAR AREA** if vehicle is in danger of falling.

10. **ALWAYS INSURE** that the safeties are engaged before any attempt is made to work on or near vehicle.

11. **DRESS PROPERLY.** Non-skid steel-toe footwear is recommended when operating lift.

12. **GUARD AGAINST ELECTRIC SHOCK.** This lift must be grounded while in use to protect the operator from electric shock. Never connect the green power cord wire to a live terminal. This is for ground only.



13. **DANGER!** The power unit used on this lift contains high voltage. Disconnect power at the receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.



14. **WARNING! RISK OF EXPLOSION.** This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.



15. **MAINTAIN WITH CARE.** Keep lift clean for better and safer performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.

16. **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.

17. **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.

18. **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.

TOOLS REQUIRED

- ◆ Rotary Hammer Drill Or Similar *
- ◆ 3/4" Masonry Bit *
- ◆ 1-1/4" Masonry Bit *
- ◆ Hammer *
- ◆ Wrenches: 1/2", 15/16", 1-1/8" *
- ◆ Medium Crescent Wrench
- ◆ Crow Bar For Shim Installation*
- ◆ Lifting Blocks / Stands*
- ◆ Hydraulic Jack / Lifting Device*
- ◆ Medium Screwdriver
- ◆ Tape Measure

* Required for LR-60

IMPORTANT NOTICE

These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.

STEP 1

(Selecting Site)

Before installing your new lift, check the following:

1. **LIFT LOCATION:** Always use architects plans when available. Check layout dimension against floorplan requirements making sure that adequate space is available.
2. **OVERHEAD OBSTRUCTIONS:** The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.
3. **DEFECTIVE FLOOR:** Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.



4. **OPERATING TEMPERATURE.** Operate lift only between temperatures of 41° -104° F.

5. Lift is designed for **INDOOR INSTALLATION ONLY**

STEP 2

(Floor Requirements)



This lift must be installed on a solid level concrete floor with no more than 3-degrees of slope. Failure to do so could cause personal injury or death.

A level floor is suggested for proper use and installation and level lifting. If a floor is of questionable slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab.



- ◆ **DO NOT** install or use this lift on any asphalt surface or any surface other than concrete.
- ◆ **DO NOT** install or use this lift on expansion seams or on cracked or defective concrete.
- ◆ **DO NOT** install or use this lift on a second / elevated floor without first consulting building architect.
- ◆ **DO NOT** install or use this lift outdoors.

CONCRETE SPECIFICATIONS

LIFT MODEL	CONCRETE REQUIREMENT
LR-60	3.5" Min Thickness / 2500PSI
LR-60P	3.5" Min Thickness / 2500PSI



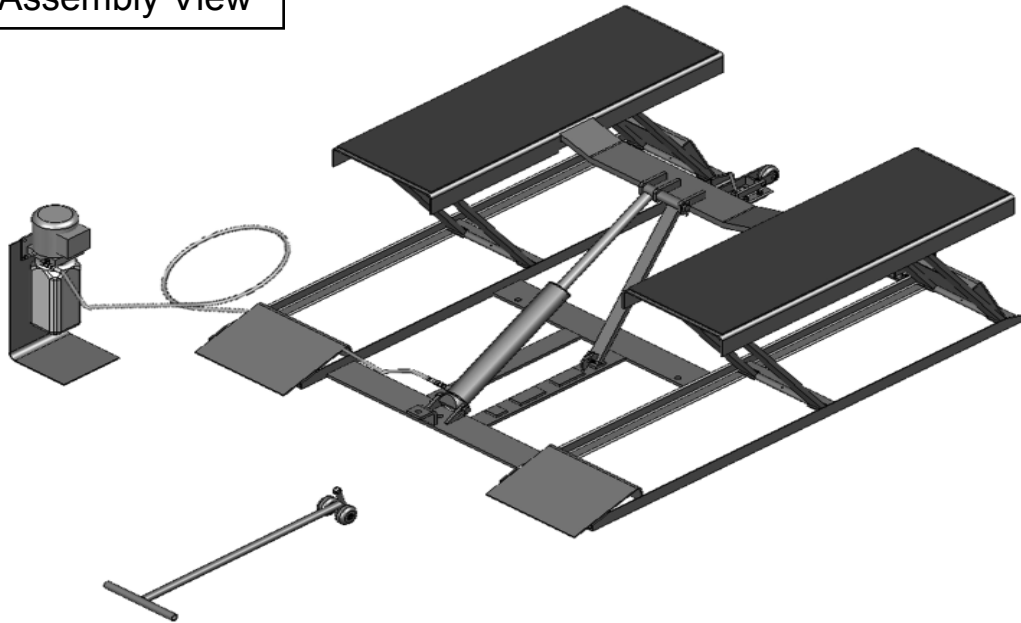
All models **MUST** be installed on 2500 PSI concrete only conforming to the minimum requirements shown above. New concrete must be adequately cured by at least 28 days minimum.

⚠ DANGER

When removing the lift from packaging pay close attention as the lift can slide and can cause injury.

PARTS INVENTORY
Be sure to take a complete inventory of parts prior to beginning installation.

Assembly View



LR-60P Shown

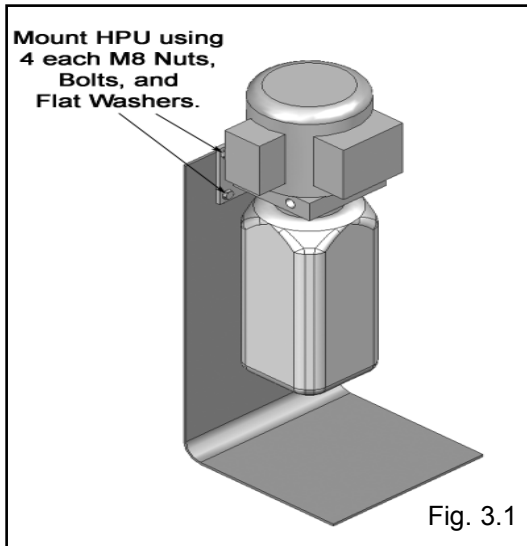
QTY	DESCRIPTION	PART #	CHECK
1	Main Frame Assembly	-----	
1	Hydraulic Power Unit	5585094	
1	Motor Stand	5700635	
4	Lifting Blocks 1 1/2"	5300845	
1	90° Fitting; 6801-04-06; (Power Unit)	5550103	
1	Straight Fitting 2404-04-04; (Cylinder)	5550147	
4	M8 x 1.25 x 20 Hex Head Bolts (Power Unit)	5530304	
4	M8 x 1.25 Hex Head Nuts (Power Unit)	5535356	
4	M8 Flat Washer (Power Unit)	5545340	
1	Hydraulic Hose Assy. (6.35 x 3640mm) DS 143"	5570863	
3	3/4" x 4" Wejit Anchors	5530455	
1	Tow handle (LR-60P Only)	5210863	
2	Wheel Assemblies (LR-60P Only)	5210907	

SPECIFICATIONS	LR-60	LR-60-P
Lifting Capacity	6,000 Lbs.	6,000 Lbs.
Lifting Height	26"	26"
Lifting Time	36 Seconds	36 Seconds
Frame Dimension	81-1/2" x 18"	81-1/2" x 18"
Lift Pad Dimensions	18" x 32"	18" x 32"
Lowered Height	4"	4"
Safety System	Mechanical Locks	Mechanical Locks
Hydraulic Power Unit	110/220 Volt / 60HZ / 1 Phase	110/220 Volt / 60HZ / 1 Phase
Fluid Capacity	1-1/2 Gallons	1-1/2 Gallons

STEP 3

(Power Unit Set Up)

1. Set the Power Unit on the Stand and mount using the four M8 bolts Nuts and Flat Washers.
(See Fig. 3.1)

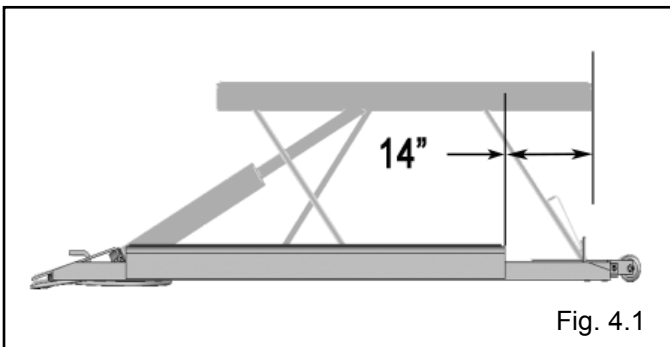


2. Fill the reservoir with 6 Quarts / 1.5 gals of Dexron III ATF or 10W Non-foaming hydraulic fluid.

STEP 4

(Layout)

1. Remember that the lift moves rearward approximately 14" when raised. (See Fig. 4.1)



2. After selecting a site, place the unit in position making sure the Hydraulic Cylinder is placed towards the front of the bay. (Engine should be positioned at Cylinder side of lift.) (See Fig. 4.2)

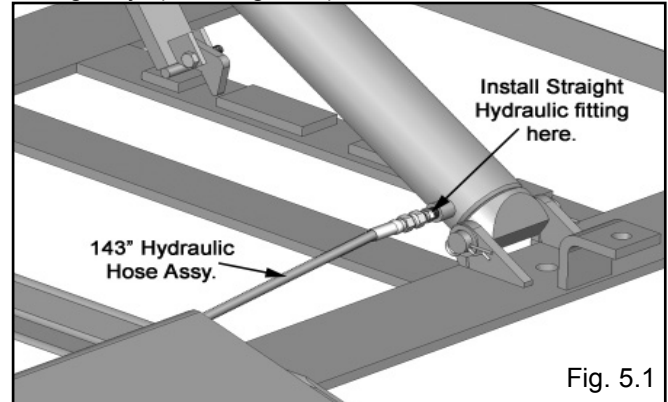


3. Select a site for the Power Unit so that operators have a full, unobstructed view of the lift.

STEP 5

(Connecting Hydraulic Fittings / Hoses)

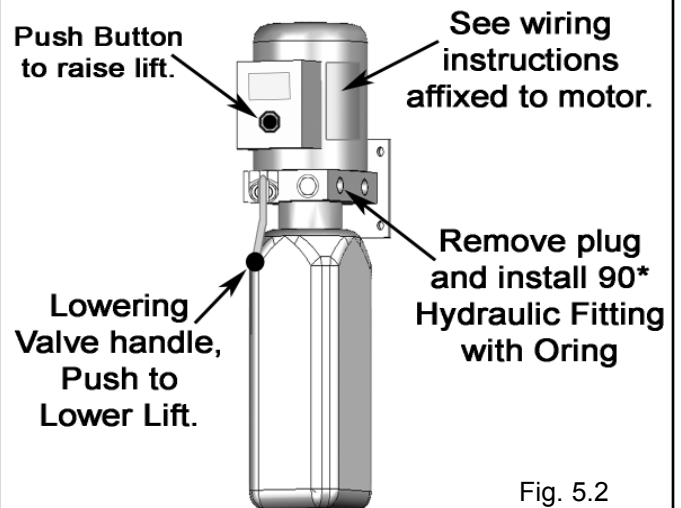
1. Remove the plastic plug from the left port of the Cylinder. (See Fig. 5.1)
2. Install the Straight Hydraulic Fitting in the left port of the Cylinder. Use Teflon Tape on the Cylinder side on the Fitting only. (See Fig. 5.1)



Connect one end of the 143" Hydraulic Hose Assy making sure to not over-tighten. Do not use Teflon Tape on this connection.

3. Install the 90-degree hydraulic Fitting in the pressure port of the Power Unit. The pressure port is covered with a plastic plug. (See Fig 5.2)

ALL WIRING SHOULD BE PERFORMED BY A LICENSED ELECTRICIAN.



4. Connect the 143" Hydraulic Hose to the Power Unit fitting . Do not use Teflon Tape on this connection, make sure to not over-tighten.

STEP 6

(Wiring Power Unit)



**DANGER !
ALL WIRING MUST BE PERFORMED
BY A LICENSED ELECTRICIAN.**



DANGER!

**DO NOT PERFORM ANY MAINTENANCE OR
INSTALLATION OF ANY COMPONENTS WITH OUT
FIRST ENSURING THAT ELECTRICAL POWER HAS
BEEN DISCONNECTED AT THE SOURCE OR PANEL
AND CANNOT BE RE-ENERGIZED UNTIL ALL
MAINTENANCE AND/OR INSTALLATION
PROCEDURES ARE COMPLETED.**

1. Have a certified electrician verify the power supply to the power unit. Refer to the data plate found on the motor for proper power supply and wire size.

The standard power unit can be run on either 110V or 220V. It is already wired for 110V and equipped with a 3-wire power cord with grounding plug. For optional 220V hook up, follow the wiring instructions as shown on the motor data plate. See electrical data WARNING!



**The power unit on this lift MUST NOT get wet.
NEVER expose power unit to wet / damp conditions.
Damage to power unit caused by moisture is not
covered under warranty.**



WARNING ! RISK OF EXPLOSION!

**This equipment has internal arcing or parts that may spark
and should not be exposed to flammable vapors. Motor
should not be located in a recessed area or below floor
level. NEVER expose motor to rain or other damp environ-
ments. DAMAGE TO MOTOR CAUSED BY WATER IS
NOT COVERED UNDER WARRANTY.**

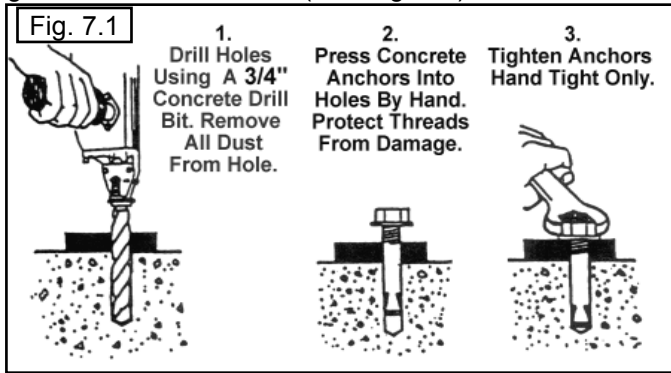


- ◆ **DO NOT run power unit with no oil. Damage to pump can occur.**
- ◆ **The power unit must be kept dry. Damage to power unit caused by water or other liquids such as detergents, acid etc., is not covered under warranty.**
 - ◆ **Operate lift only between temperatures of 41 °- 104° F.**
- ◆ **Improper electrical hook-up can damage motor and will not be covered under warranty.**
 - ◆ **Motor can not run on 50HZ without a physical change in motor.**
 - ◆ **Use a separate breaker for each power unit.**
 - ◆ **Protect each circuit with time delay fuse or circuit breaker.**
 - ◆ **For 110-120 volt, single phase, use a 20 amp fuse.**
 - ◆ **For 208-230 volt, single phase, use a 25 amp fuse.**

STEP 7

(Anchoring Lift, LR-60 Only)

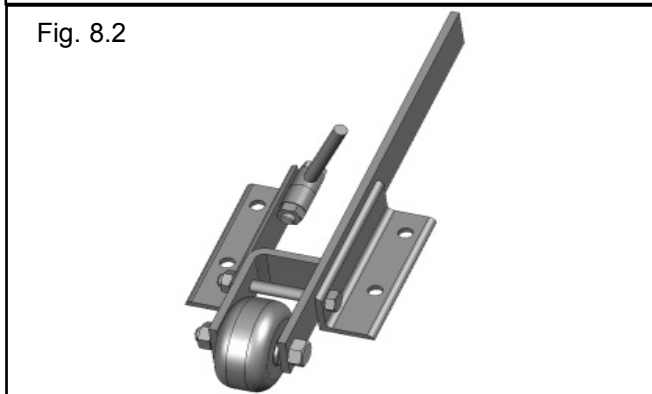
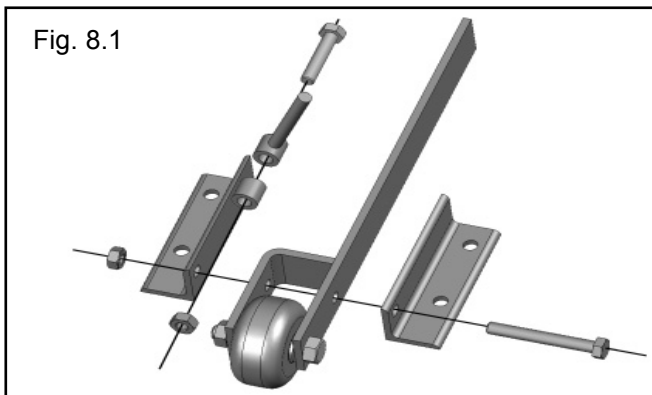
1. Before anchoring lift to the floor, confirm the location is satisfactory.
2. Using a 3/4" concrete bit, drill the floor using the holes on the frame as a guide. (See Fig. 7.1)
3. Remove all excess dust from holes, then install the anchor bolts. (See Fig. 7.1)
4. Tighten the anchor bolts to 25-30 ft.-lbs. using an open end wrench only. DO NOT use an impact wrench to tighten concrete anchors. (See Fig. 7.1)



STEP 8

(Installing Wheel Assemblies)
(FOR LR-60-P ONLY)

1. Assemble the two Wheel Assemblies as shown in Fig 8.1 and 8.2.

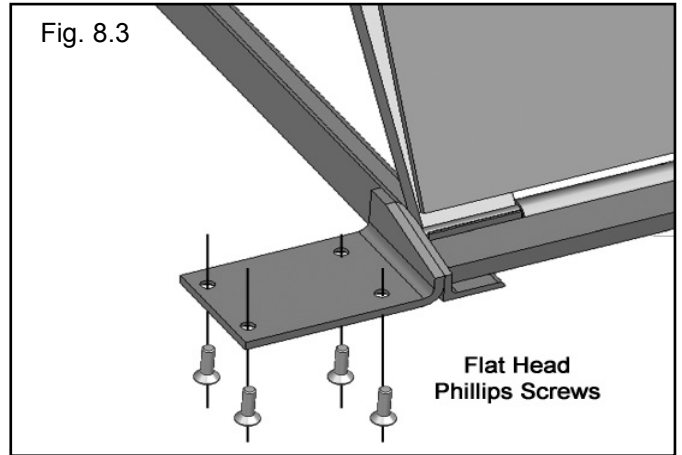


1. Using Hydraulic Jack or other lifting device, raise the lift off the Ground approximatley 4- 6".

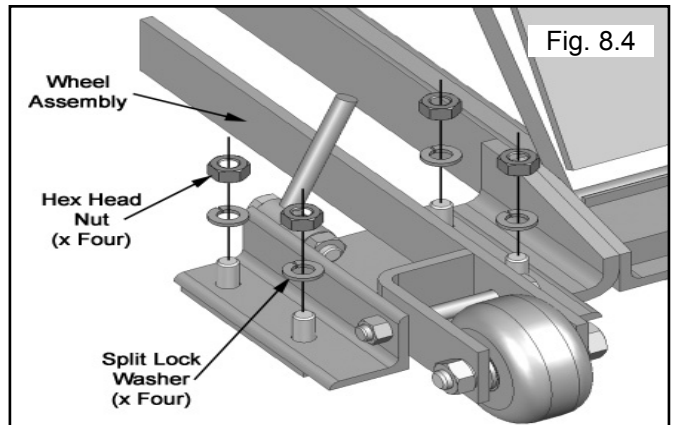


WARNING !
Place lift on blocks or stands **BEFORE** proceeding with any work under the lift.

2. Install the eight Flat Head Phillips Screws (four per side) up through the Flanges on the inside rails of the Lift. (See Fig. 8.3)



3. Install the Wheel Assemblies as shown. Install Split Lock Washers and tighten Hex Head Bolts. (See Fig. 8.4)



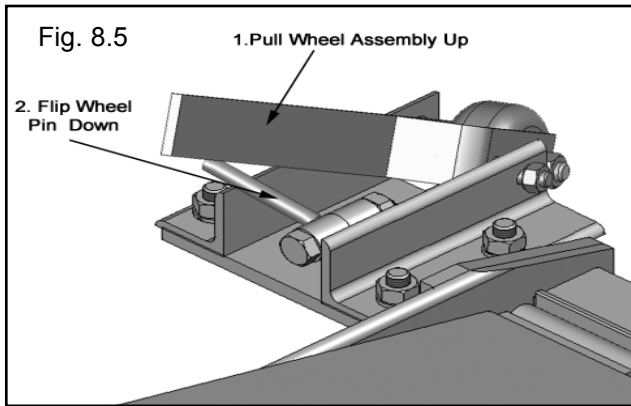
4. Remove any stands / blocks. Lower Lift back on the ground.



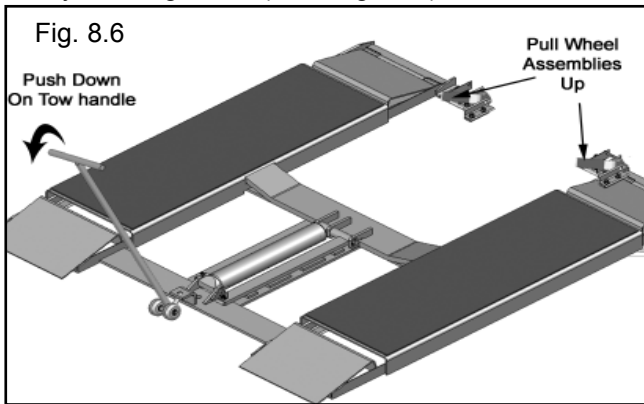
WARNING !
DO NOT OPERATE THE LIFT WITH THE WHEEL ASSEMBLIES IN THE DOWN POSITION.

TO MOVE LIFT

1. Pull up on Wheel Assembly handle.
2. Flip Down Wheel Pin. (See Fig. 8.5)



3. Insert the Tow Handle into the Tow Handle Anchor and push down on the Tow Handle to raise the Lift Assembly off the ground. (See Fig. 8.6)



4. Remove the Tow Handle and Lower the Rear Wheel Assemblies.



WARNING !
DO NOT OPERATE THE LIFT WITH THE WHEEL ASSEMBLIES IN THE DOWN POSITION.

STEP 9

(Lift Start Up / Final Adjustments)



CAUTION!
During the START-UP procedure, observe all operating components and check for proper installation and adjustment. DO NOT attempt to raise vehicle until a thorough operational check has been completed.

1. Confirm the Power Unit reservoir is full with 6 quarts/ 1.5 gals of 10-WT hydraulic oil or Dexron-III automatic transmission fluid.

2. Test the Power Unit by pressing the push-button switch. If the motor sounds like it is operating properly, raise the lift and check all hose connections for leaks. If the motor gets hot or sounds peculiar, stop and check all electrical connections.



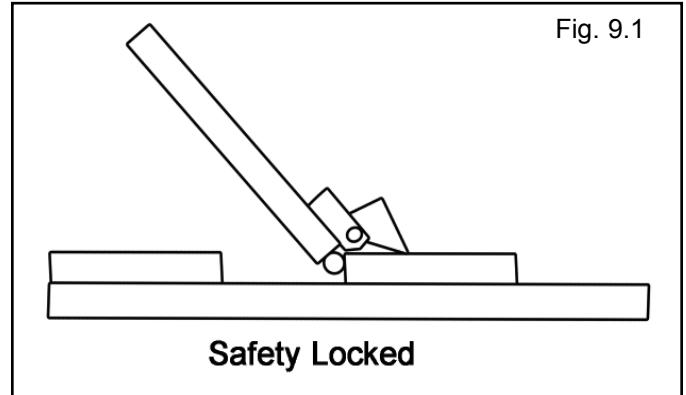
KEEP HANDS AND FEET CLEAR. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
ALWAYS WEAR SAFETY GOGGLES

3. Check the MAIN SAFETY LOCK to make sure it moves freely. Lubricate all SAFETY PIVOT points with WD-40 or equal.

4. **RAISE LIFT UNTIL THE CYLINDER BOTTOMS OUT AND THE LIFT STOPS.**

5. Lower the lift until the Safety rests In the Locked Position.

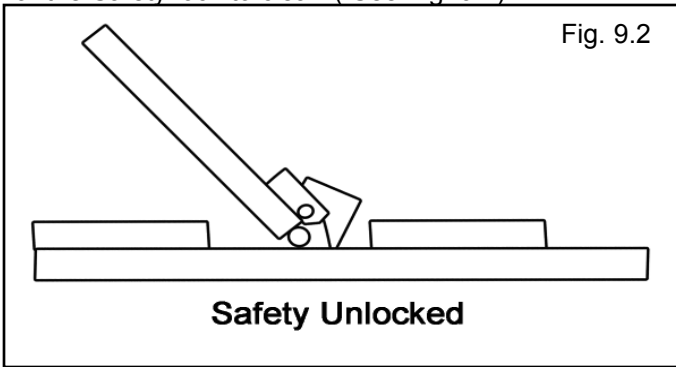
6. Verify that the Safety rests in the locked position at each safety stop. (See Fig. 9.1)



VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA.
Suspension components on this lift are intended to raise and lower lift only and are not meant to be load holding devices. Remain clear of elevated lift unless visual confirmation is made that all primary safety locks are fully engaged and the lift is LOWERED onto the safety locks, Refer to installation /operation manual for proper safety lock procedures and /or further instruction.

TO LOWER LIFT:

1. Raise the lift off the Safety locks by pressing the push button on the Power Unit. Make sure you raise the lift by at least two inches to allow adequate clearance for the Safety lock to clear. (See Fig. 9.2)



2. Lower lift by depressing lowering valve on Power Unit.
3. Run the lift up and down a few times to insure that the locks are engaging properly. Re-adjust or contact your installer or Bendpak if necessary

STEP 10

(Bleeding)

1. Lift must be fully lowered before changing or adding fluid.
2. Raise and lower lift six times. The Cylinder is self-bleeding. After bleeding system, fluid level in power unit reservoir may be down. Add more fluid if necessary to raise lift to full height. It is only necessary to add fluid to raise lift to full height.
3. To pressure test, run lift to full rise and run motor for approximately 3-seconds after lift stops. This will place pressure on the hydraulic system. Stop and check all fittings and hose connections. Tighten or reseal if required.

POST-INSTALLATION CHECK-OFF

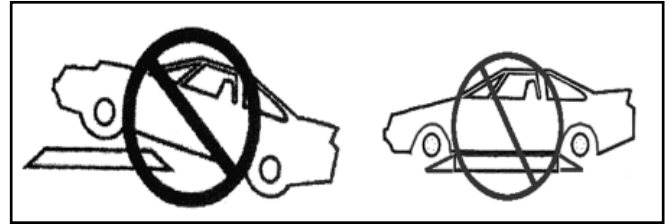
- ◆ Lift Assembly, Level And Stable
- ◆ Electric Power Supply Confirmed
- ◆ Safety Locks Functioning Properly
- ◆ Check For Hydraulic Leaks
- ◆ Oil Level
- ◆ Lubrication of Critical Components
- ◆ Check For Overhead Obstructions
- ◆ Runways Level
- ◆ All Screws, Bolts, and Pins Secured
- ◆ Surrounding Area Clean
- ◆ Operation, Maintenance and Safety Manuals on Site

STEP 11

(Operation)

To Raise Lift;

1. Position vehicle centered over the lift..
2. Set the lift pads under the proper lifting points as indicated in the Lifting Guide or owners manual of the vehicle.
3. Before Raising, confirm that the weight of the vehicle does not exceed the rated capacity the lift.
DO NOT Park wheels directly on lift pads.



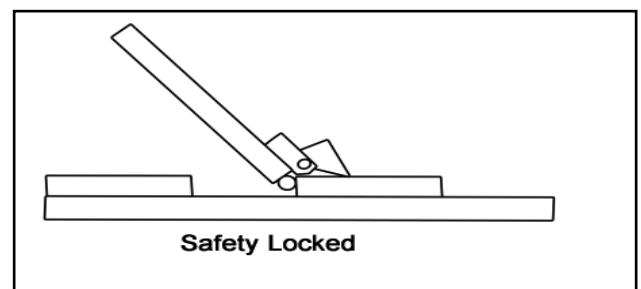
4. Set parking brake or use wheel chock to hold vehicle in position.
5. Before raising vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances.
6. Raise the lift to the desired height by pressing the push button on the power unit.



VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA.

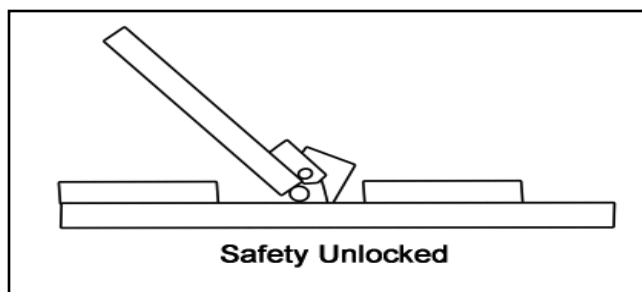
Suspension components on this lift are intended to raise and lower lift only and are not meant to be load holding devices. Remain clear of elevated lift unless visual confirmation is made that all primary safety locks are fully engaged and the lift is LOWERED onto the safety locks, Refer to installation /operation manual for proper safety lock procedures and /or further instruction.

7. After vehicle is raised to the desired height, **lower the lift onto the nearest safety lock.** **ALWAYS INSURE SAFETY LOCK IS ENGAGED** before entering work area.



To Lower Lift;

1. Raise the lift off the Safety Locks by pressing the push button on the Power Unit. Make sure you raise the lift by at least two inches to allow adequate clearance for the Safety lock to clear.



2. Push the LOWERING HANDLE on the Power Unit until the lift has descended completely.

WEEKLY MAINTENANCE

1. Lubricate arm Hinge Pins with grease.
2. Check optional arms to insure proper mounting.
3. Lubricate Safety Lock Pivot points with general purpose oil or WD-40.

MONTHLY MAINTENANCE

1. Check Safety Locks to insure they are in good operating condition.
2. Lubricate Cylinder pivot Pins and Lift Pivot Pins with grease.
3. Make a visual inspection of ALL MOVING PARTS and check for excessive signs of wear.
4. Replace ALL FAULTY PARTS before lift is put back into operation.



- ◆ **NEVER EXCEED THE RATED CAPACITY** of lift.
- ◆ **DO NOT USE LIFT** if any component is found to be defective or worn.
- ◆ **NEVER OPERATE LIFT** with any person or equipment below.
- ◆ **ALWAYS STAND CLEAR** of lift when lowering or raising.
- ◆ **ALWAYS INSURE SAFETY LOCKS ARE ENGAGED** before entering work area.
- ◆ **NEVER LEAVE LIFT IN ELEVATED CONDITION** unless safety locks are engaged.

When lowering the lift **PAY CAREFUL ATTENTION** that all personnel and objects are kept clear. **ALWAYS** keep a visual line of site on the lift **AT ALL TIMES**.

LIFT WILL NOT RAISE

POSSIBLE CAUSE

1. Air in oil, (1,2,8,13)
2. Cylinder binding, (9)
3. Cylinder leaks internally, (9)
4. Motor run backward under pressure, (11)
5. Lowering valve leaks, (3,4,6,10,11)
6. Motor runs backwards, (7,14,11)
7. Pump damaged, (10,11)
8. Pump won't prime, (1,8,13,14,3,12,10,11)
9. Relief valve leaks, (10,11)
10. Voltage to motor incorrect, (7,14,11)

REMEDY

1. Check for proper oil level.
2. Bleed cylinders.
3. Flush- Release valve to get rid of.
possible contamination
4. Dirty oil.
5. Tighten all fasteners.
6. Check for free movement of release.
7. Check motor is wired correctly.
8. Oil seal damaged or cocked
9. See Installation Manual
10. Replace with new part
11. Return unit for repair
12. Check pump-mounting bolts
13. Inlet screen clogged
14. Check wall outlet voltages and wiring

INSTRUCTION

- The oil level should be up to the bleed screw in the reservoir with the lift all the way down.
- See Installation Manual
- Hold release handle down and start unit allowing it to run for 15 seconds.
- Replace oil with clean Dexron ATF.
- Tighten fasteners to recommended torques.
- If handle does not move freely, replace bracket or handle assembly.
- Compare wiring of motor to electrical diagram on drawing.
- Replace oil seal around pump shaft.
- Consult Lift Manufacturer.
- Replace with new part.
- Return unit for repair.
- Bolts should be 15 to 18 ft. lbs.
- Clean inlet screen or replace.
- Make sure unit and wall outlet are wired properly.

MOTOR WILL NOT RUN

POSSIBLE CAUSE

1. Fuse blown, (5,2,1,3,4)
2. Microswitch burned out, (1,2,3,4)
3. Motor burned out, (1,2,3,4,6)
5. Voltage to motor incorrect, (2,1,8)

REMEDY

- | REMEDY | INSTRUCTION |
|---|--|
| 1. Check for correct voltage | .Compare supply voltage with voltage on motor nametag. Check that the wire is sized correctly. N.E.C. table 310-12 requires AWG 10 for 25 Amps. |
| 2. Check motor is wired correctly | .Compare wiring of motor to electrical diagram on drawing. |
| 3. Don't use extension cords | .According to N.E.C. : " The size of the conductors... should be such that the voltage drop would not exceed 3% to the farthest outlet for power..." Do not run motor at 115 VAC – damage to the motor will occur. |
| 4. Replace with new part | .Replace with new part. |
| 5. Reset circuit breaker/fuse | .Reset circuit breaker/fuse. |
| 6. Return unit for repair | Return unit for repair. |
| 7. See Installation Manual | .See Installation Manual. |
| 8. Check wall outlet voltage and wiring | Make sure unit and wall outlet is wired properly. Motor must run at 208/230 VAC. |

LIFT LOWERS SLOWLY OR NOT AT ALL

POSSIBLE CAUSE

1. Cylinders binding, (1)
2. Release valve clogged, (5,4,2,3)
3. Pressure fitting too long, (6)
4. Air in Cylinder (7)

REMEDY

- | REMEDY | INSTRUCTION |
|---|--|
| 1. See Installation Manual | .Consult Lift Manufacturer. |
| 2. Replace with new part | .Replace with new part. |
| 3. Return for repair | Return for repair. |
| 4. Check oil. | Use clean 10-WT hydraulic oil or Dexron-III automatic transmission fluid only. If ATF is contaminated, replace with clean ATF and clean entire system. |
| 5. Clean release valve | Wash release valve in solvent and blow out with air. |
| 6. Replace fitting with short thread lead | Replace fitting with short thread lead. |
| 7. Bleed cylinders. | See Installation Manual |

WILL NOT RAISE LOADED LIFT

POSSIBLE CAUSE

1. Air in oil, (1,2,3,4)
2. Cylinder binding, (5)
3. Cylinder leaks internally, (5)
4. Lift overloaded, (6,5)
5. Lowering valve leaks, (7,8,1,5,9)
6. Motor runs backwards, (10,12,9)
7. Pump damaged, (5,9)
8. Pump won't prime, (1,2,3,4,5,11,9)
9. Relief valve leaks, (8,5,9)
10. Voltage to motor incorrect, (10,12,5)

REMEDY

- | REMEDY | INSTRUCTION |
|--|--|
| 1. Check oil level | The oil level should be up to the bleed screw in the reservoir [with the lift all the way down.] |
| 2. Check/Tighten inlet tubes | Replace inlet hose assembly. |
| 3. Oil seal damaged or cocked | Replace oil seal and install. |
| 4. Bleed cylinders | See Installation Manual. |
| 5. See Installation Manual | Consult Lift Manufacturer. |
| 6. Check vehicle weight | Compare weight of vehicle to weight limit of the lift. |
| 7. Flush release valve | Hold release handle down and start unit allowing it to run for 15 seconds. |
| 8. Replace with new part | Replace with new part. |
| 9. Return unit for repair | Return unit for repair. |
| 10. Check motor is wired correctly | Compare wiring of motor to electrical diagram on power unit drawing. |
| 11. Inlet screen clogged | Clean inlet screen or replace. |
| 12. Check wall outlet voltage and wiring | Make sure unit and wall outlet is wired properly. |

LIFT WILL NOT STAY UP

POSSIBLE CAUSE

1. Air in oil, (1,2,3)
2. Check valve leaks, (6)
3. Cylinders leak internally, (7)
4. Lowering valve leaks, (4,5,1,7,6)
5. Leaking fittings, (8)

REMEDY

- | REMEDY | INSTRUCTION |
|---|--|
| 1. Check oil level | The oil level should be up to the bleed screw in the reservoir with the lift all the way down. |
| 2. Oil seal damaged and cocked | Replace oil seal around pump shaft. |
| 3. Bleed cylinder | Refer to Installation Manual. |
| 4. Flush release valve | Hold release handle down and start unit allowing it to run for 15 seconds. |
| 5. Replace with new valve | Replace with new valve. |
| 6. Return unit for repair | Return unit for repair. |
| 7. See Installation Manual | Consult Lift Manufacturer. |
| 8. Check complete hydraulic system for leaks. | Tighten all hydraulics fittings and inspect all hoses. |

Safe Lift Operation

Automotive and truck lifts are critical to the operation and profitability of your business. The safe use of this and other lifts in your shop is critical in preventing employee injuries and damage to customer's vehicles. By operating lifts safely you can insure that your shop is profitable, productive and safe.

Safe operation of automotive lifts requires that only trained employees should be allowed to use the lift.

TRAINING SHOULD INCLUDE, BUT NOT LIMITED TO:

- ◆ Proper positioning of the vehicle on the runway. (See manufacturers minimize wheel base loading requirements.)
- ◆ Use of the operating controls.
- ◆ Understanding the lift capacity.
- ◆ Proper use of jack stands or other load supporting devices.
- ◆ Proper use, understanding and visual identification of safety lock devices and their operation.
- ◆ Reviewing the safety rules.
- ◆ Proper housekeeping procedures (lift area should be free of grease, oil, tools, equipment, trash, and other debris)
- ◆ A daily inspection of the lift should be completed prior to its use. Safety devices, operating controls, lift arms and other critical parts should be inspected prior to using the lift.
- ◆ All maintenance and repairs of the lift should be completed by following the manufacturer's requirements. Lift repair parts should meet or exceed OEM specifications. Repairs should only be completed by a qualified lift technician.
- ◆ The vehicle manufacturer's recommendations should be used for spotting and lifting the vehicle.

LIFT OPERATION SAFETY

- ◆ It is important that you know the load limit. Be careful that you do not overload the lift . If you are unsure what the load limit is, check the data plate found on one of the lift columns or contact the manufacturer.
- ◆ The center of gravity should be followed closely to what the manufacturer recommends.
- ◆ Always make sure you have proper overhead clearance. Additionally, check that attachments, (vehicle signs, campers, antennas, etc.) are not in the way.
- ◆ Be sure that prior to the vehicle being raised, the doors, trunk, and hood are closed securely
- ◆ Prior to being raised, make sure there is no one standing closer than six feet from the lift
- ◆ After positioning the vehicle on the lift runways, set the emergency brake, make sure the ignition is off, the doors are closed, overhead obstructions are cleared, and the transmission is in neutral.
- ◆ Double check that the automatic chock devices are in position and then when the lift is raised, observe the chocks
- ◆ Put pads or adapters in the right position under the contact points that have been recommended
- ◆ The lift should be raised just until the vehicle's wheels are about one foot off the ground. If contact with the vehicle is uneven or it appears that the vehicle is not sitting secure, carefully lower the lift and readjust.
- ◆ Always consider potential problems that might cause a vehicle to slip, i.e., heavy cargo, undercoating, etc.
- ◆ Pay attention when walking under a vehicle that is up on the hydraulic lift.



- ◆ **DO NOT** Leave the controls while the lift is still in motion.
- ◆ **DO NOT** stand directly in front of the vehicle or in the bay when vehicle is being loaded or driven into position.
- ◆ **DO NOT** Go near vehicle or attempt to work on the vehicle when being raised or lowered.
REMAIN CLEAR of lift when raising or lowering vehicle.
- ◆ **DO NOT** rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.
- ◆ **DO NOT** lower the vehicle until people, materials, and tools are clear.
- ◆ **ALWAYS INSURE** that the safeties are engaged before any attempt is made to work on or near vehicle.
- ◆ Some vehicle maintenance and repair activities may cause the vehicle to shift. Follow the manufacturer's guidelines when performing these operations. The use of jack stands or alternate lift points may be required when completing some repairs.
- ◆ **READ AND UNDERSTAND** all safety warning procedures before operating lift.
- ◆ **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- ◆ **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- ◆ **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
- ◆ **DO NOT** override self-closing lift controls.
- ◆ **CLEAR AREA** if vehicle is on danger of falling.
- ◆ **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.
- ◆ **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.
- ◆ **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.
- ◆ When the lift is being lowered, make sure everyone is standing at least six feet away.
- ◆ Be sure there are no jacks, tools, equipment, left under the lift before lowering.
- ◆ Always lower the vehicle down slowly and smoothly.

⚠ WARNING

Read and understand all safety warning and operation procedures before operating lift. Keep hands and feet clear from moving parts.

OPERATION INSTRUCTIONS

TO RAISE LIFT

- Clear area of personnel and make sure lift is in full lowered position.
- Drive vehicle over lift making sure centerline of the vehicle is positioned properly over lift pads.
- Position lift pads underneath the vehicle making sure that they make secure contact with the factory recommended lifting points.
- Before raising, make sure the weight of the vehicle does not exceed rated capacity of lift.
- Depress the RAISE button to commence lifting.
- Raise lift until the vehicles tires clear the floor.
- Stop then check if vehicle is secure and the lifting pads are still in contact with the frame.
- Continue raising vehicle to desired height.
- Raise until the safety lock bars drop into the LOCKED position as described below.

TO LOWER LIFT

- Clear area before lowering lift.
- Raise the lift until the release cam drops into the UNLOCKED position as described below.
- Push the LOWERING handle until the lift starts to descend. Stay clear of lift area.
- Fully lower the lift and remove all lifting adapters before driving vehicle away.

⚠ WARNING

ALWAYS ensure that the safety is in LOCKED position before any attempt is made to work on or near the vehicle.

LOCKED POSITION



UNLOCKED POSITION



⚠ DANGER

THE MAXIMUM LIFTING CAPACITY FOR THIS LIFT IS DESCRIBED BELOW

Maximum Lifting Capacity

6000 Lbs. / 2722 Kg.

Maximum Lifting Capacity / Front Axle

3000 Lbs. / 1361 Kg.

Maximum Lifting Capacity / Rear Axle(s)

3000 Lbs. / 1361 Kg.

Exceeding the weight capacity of this lift can damage lift and/or property and may cause personal harm, injury or death to operators and/or bystanders. All vehicles MUST be positioned on lift with CENTER OF GRAVITY midway between adapters and/or centered on runways. Damage to lift due to overloading or misuse IS NOT covered under warranty.

SAFETY INSTRUCTIONS



Read operating and safety manuals before using lift.

SAFETY INSTRUCTIONS



Proper maintenance and inspection is necessary for safe operation.

SAFETY INSTRUCTIONS



Do not operate a damaged lift.

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indialantic, FL. 32903.

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ALI/WL200s

WARNING



Clear area if vehicle is in danger of falling.

WARNING



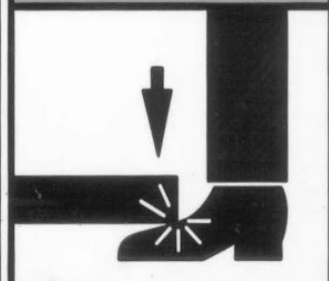
Remain clear of lift when raising or lowering vehicle.

WARNING



Keep clear of pinch points when lift is moving.

WARNING



Keep feet clear of lift while lowering.

CAUTION



Lift to be used by trained operator ONLY.

CAUTION



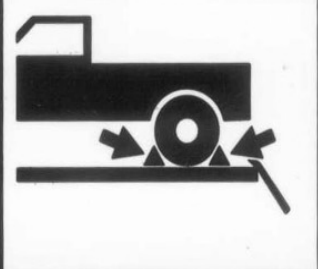
Authorized personnel only in lift area.

WARNING



Do not override self-closing lift controls.

WARNING



Chock wheel to prevent vehicle movement.

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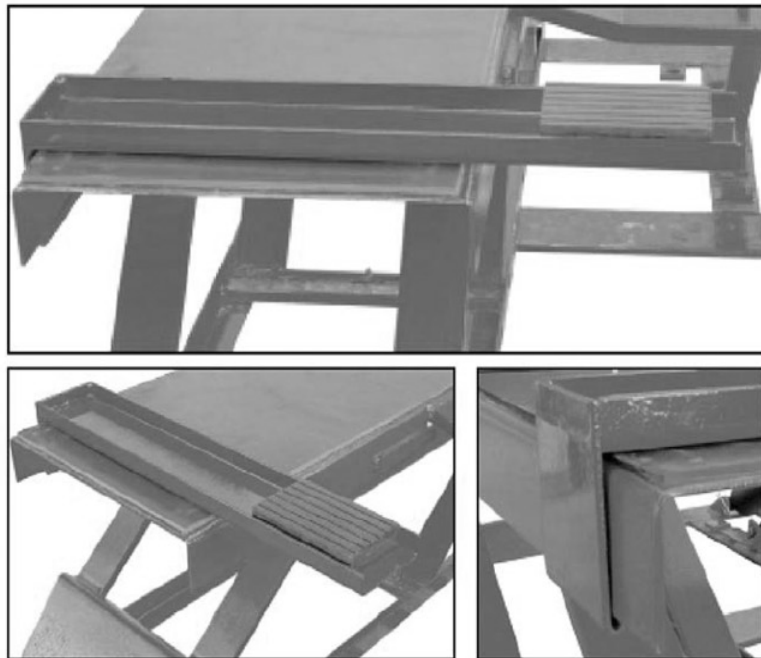
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ALI/WL200w



Optional LR-4A Arm Kit
Fits Model(s) LR-60, LR-60P, P-6 and P-6F Low-Rise Lifts

This easy to use arm kit adapts to fit Bend-Pak low-rise lift models LR-60, LR-60P, P-6 and P-6F. This specialty arm kit increase the versatility of these lift models by increasing the pad reach when servicing light-duty trucks or vans. Complete kit includes; (4) lift arms and (4) rubber lift blocks.



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Bend-Pak / Ranger, 1645 Lemonwood Dr., Santa Paula, CA 93060
Tel: 1-805-933-9970 Fax: 1-805-933-9160

INSTALLATION FORM

Customer Name:		Date of Installation:
Company Name:		
Street Address:		
City:	State:	Zip:
Phone:	Fax:	

Pre-Install Agreement

I, (the undersigned) acting as the owner of the business listed above assume responsibility for any permits required, either state or county mandated, related to the installation and/or operation of this equipment. I assume responsibility for the concrete floor and condition thereof, now or later, where the above equipment model(s) are installed. I will assume all liability for losses, damages (including loss of use), expenses, demands, claims, and judgments in connection with or arising out of any personal injury or alleged damage to property, sustained or alleged to have been sustained in connection with, or to have arisen out of the condition and/or drilling of the concrete near or adjacent to the equipment model(s) listed above. If my employee(s) offer assistance of any kind during installation of the above equipment model(s) I hold the manufacturer and installation company harmless of all liability for losses, damages, expenses, claims, and judgments in connection with or arising out of any personal injury or alleged damage to property, sustained or alleged to have been sustained in connection with the installation of the above equipment model(s).

I understand that the lifts above are supplied with concrete fasteners meeting the criteria of the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-1998, and that I will be responsible for all charges related to any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).

Customer Signature: _____ Print Name: _____ Date: _____

Post-Installation Check-Off

- | | |
|---|---|
| <input type="checkbox"/> Base and Columns Properly Shimmed And Stable | <input type="checkbox"/> Lubrication of Critical Components |
| <input type="checkbox"/> Anchor Bolts Tightened | <input type="checkbox"/> Lift Adapters |
| <input type="checkbox"/> Runways Properly Attached and Secured | <input type="checkbox"/> Check For Overhead Obstructions |
| <input type="checkbox"/> Electric Power Supply Confirmed | <input type="checkbox"/> Runways Level |
| <input type="checkbox"/> Cables / Chains Adjusted Properly | <input type="checkbox"/> All Screws, Bolts, and Pins Secured |
| <input type="checkbox"/> Safety Locks Functioning Properly | <input type="checkbox"/> Surrounding Area and Lift Clean In Appearance |
| <input type="checkbox"/> Check For Hydraulic Leaks | <input type="checkbox"/> Proper Operation, Maintenance and Safety Explained |
| <input type="checkbox"/> Oil Level | <input type="checkbox"/> Operation and Safety Manual(s) Left at Site |

I, (the undersigned) confirm that the above installation procedure(s) were completed. I understand that I will be responsible for maintaining this equipment as outlined in the accompanied **Installation and Operation Manual** and **ANSI/ALI ALOIM Safety Requirements for Operation, Inspection and Maintenance**. I understand that personal injury and/or damage to property can occur if the above equipment model(s) are not maintained or used improperly and take full responsibility for training my employees on proper use and maintenance of this equipment. I hold the manufacturer and installation company harmless of all liability for losses, damages (including loss of use), expenses, demands, claims, and judgments in connection with or related to improper use, improper training, or lack of required maintenance. I understand that the warranty does not cover replacement of parts worn or damaged due to normal use or lack of required maintenance

Customer Signature: _____ Print Name: _____ Date: _____

Installer Signature: _____ Print Name: _____ Date: _____

Installer Company Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Phone (Other): _____



The best automotive service equipment on the planet.

**For Parts Or Service
Contact:**

**Bend-Pak Inc. / Ranger Products
1645 Lemonwood Dr.
Santa Paula, CA. 93060**

**Tel: 1-805-933-9970
Toll Free: 1-800-253-2363
Fax: 1-805-933-9160**

**www.bendpak.com
www.rangerproducts.com**

