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Low-Rise Pit Lift

Installation and Operation Manual

Manual P/N 5900022 — Manual Revision C2 — July 2024

Models:

- P-9000LT
- P-9000LTF

Original instructions in the English language

Model P-9000LT shown.

Designed and engineered by BendPak Inc. in Southern California, USA. Made in China.

⚠ DANGER

IMPORTANT Safety Instructions, save these instructions! Read the *entire* contents of this manual ***before*** using this product. Failure to follow the instructions and safety precautions in this manual can result in severe injury or death. Make sure all other operators also read this manual. Keep the manual near the product for future reference. ***By proceeding with installation and operation, you agree that you fully understand the contents of this manual and assume full responsibility for product use.***

Manual. P-9000LT/F Low-Rise Pit Lift, *Installation and Operation Manual*, Manual Part Number 5900022, Manual Revision C2, July 2024.

Limitations. Every effort has been made to ensure complete and accurate instructions are included in this manual. However, product updates, revisions, and/or changes may have occurred since this manual was published. BendPak reserves the right to change any information in this manual without incurring any obligation for equipment previously or subsequently sold. BendPak is not responsible for typographical errors in this manual. You can always find the latest version of the **manual for your product on the BendPak website**.

Warranty. The BendPak warranty is more than a commitment to you: it is also a commitment to the value of your new product. Contact your nearest BendPak dealer or visit **www.bendpak.com/support/warranty** for full warranty details. Go to **bendpak.com/support/register-your-product/** to fill out the online form to register your product (be sure to click **Submit**).

Safety. Your product was designed and manufactured with safety in mind. However, your safety also depends on proper training and thoughtful operation. Do not install, operate, maintain, or repair the unit without reading and understanding this manual and the labels on the unit; ***do not use your Lift unless you can do so safely!***

Owner Responsibility. In order to ensure operator safety and maintain your product properly, it is the responsibility of the product owner to read and follow these instructions:

SCAN FOR DIGITAL PDF

- Follow all setup, operation, and maintenance instructions.
- Make sure product setup and use conforms to all applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.
- Read and follow all safety instructions. Keep them readily available for operators.
- Make sure all operators are properly trained, know how to safely operate the unit, and are properly supervised.
- Do not operate the product until you are certain all parts are in place and operating correctly.
- Carefully inspect the product on a regular basis and perform all maintenance as specified.
- Service and maintain the unit only with approved replacement parts.
- **BendPak** makes no promises, guarantees or assurances that our products meet any state, county, federal or international mandated permit, license, code, standard, certification, or any other mandate other than what is listed or shown on BendPak website(s), or any BendPak or Ranger online or published catalog. Not all BendPak Lift models meet the standards as prescribed by ANSI/ALI ALCTV-(current edition) or ANSI/UL 201. Consult **www.autolift.org** for a complete list of Lift models that meet ANSI/ALI ALCTV-(current edition) or ANSI/UL 201, or contact BendPak via **contact@bendpak.com**. ***Buyer assumes full responsibility for any state, county, federal or international mandated permit, license, code, standard, certification, or any other mandate required related to the installation and/or operation of any BendPak product.*** BendPak will not be responsible for any charges, fines, liens, or other levies imposed on the Buyer related to any special or regional structural, seismic or any other building code and/or codes such as the Uniform Building Code (UBC), International Building Code (IBC), or any other state, county, federal or international mandated permit, license, code, standard, certification, or other mandate, law, rule, regulation or directive by any other agency, government, administrations, or corporations whether state, county, federal, or international mandated.

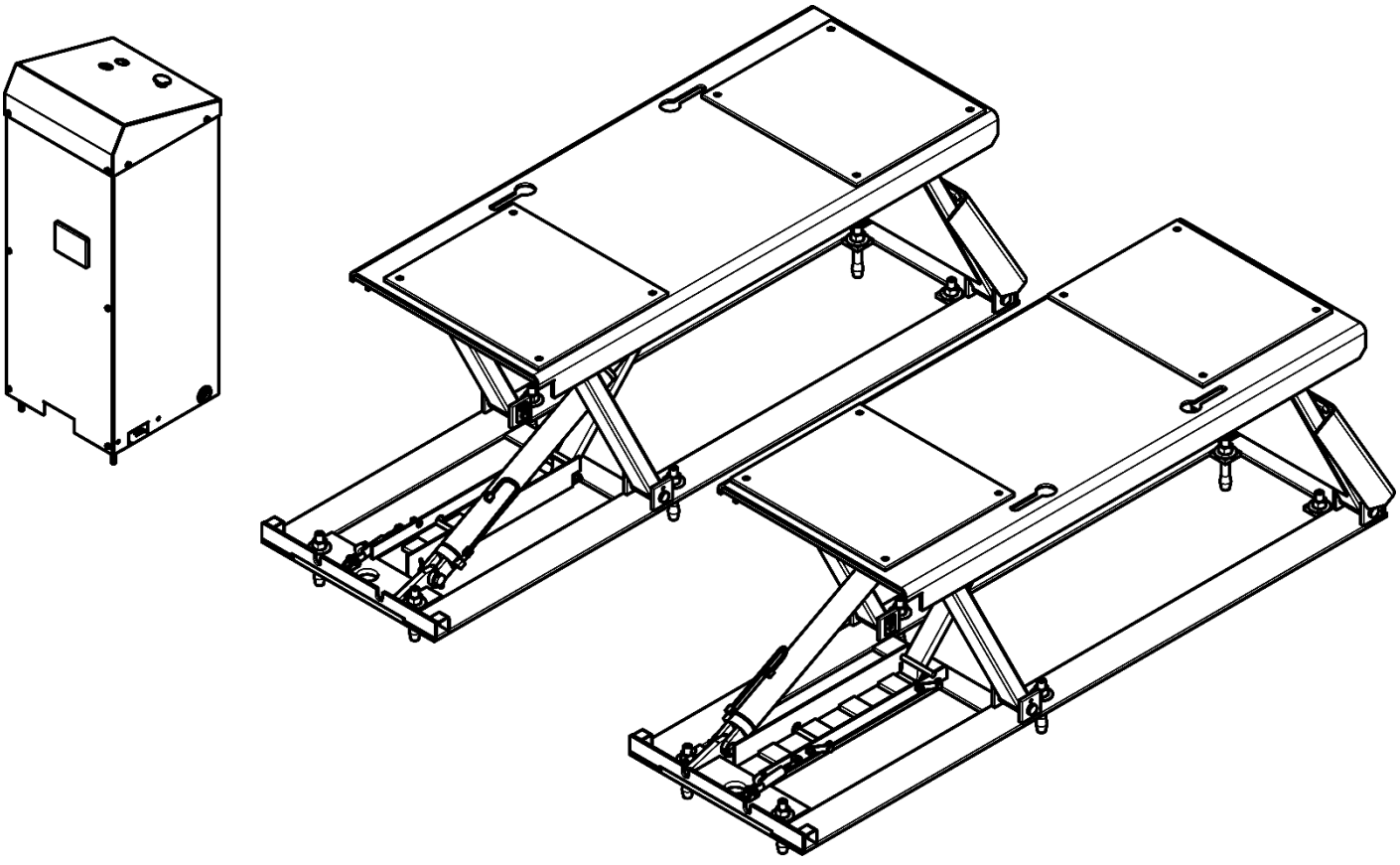
- **Only use the Lift if it can be used safely!**

Unit Information. Enter the Model Number, Serial Number, and the Date of Manufacture from the label on your unit. This information is required for part or warranty issues.

Model: _____

Serial: _____

Date of Manufacture: _____



P-9000LTF Pictured above.

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Introduction

This manual describes the P-9000LT and P-9000LT*F*, which are low-rise, frame-engaging, pit lifts that are designed and engineered for fast-paced auto shop environments, oil-change facilities, and home garages. They can be installed at ground level or recessed (the **F** in P-9000LT**F** stands for "Flush Mount"), generally over a service pit. Flush mount models do not use ramps, but they do require a recessed surface.

Both models raise Vehicles up to 9,000 lbs. (4,082 kg). Both models are ALI certified (**autolift.org**) when used with a 220 VAC Power Unit.

More information about the full line of BendPak products is available at **bendpak.com**.

This manual is mandatory reading for all P-9000LT/F users, including anyone who installs, operates, maintains, or repairs. You can find the **manual for your product on the BendPak website.**

⚠ **DANGER** Be very careful when installing, operating, maintaining, or repairing this equipment; failure to do so could result in property damage, product damage, injury, or (in very rare cases) death. Make sure only authorized personnel operate this equipment. All repairs must be performed by an authorized technician. Do not make modifications to the unit; this voids the warranty and increases the chances of injury or property damage. Make sure to read and follow the instructions on the labels on the unit.

Keep this manual on or near the equipment so that anyone who uses or services it can read it.

If you are having issues, refer to the **Troubleshooting** section of this manual for assistance.

Technical support and service is available from your dealer, on the Web at **bendpak.com/support**, by email at **support@bendpak.com**, or by phone at **(800) 253-2363**, then follow prompts.

You may also contact BendPak for parts replacement information (please have the model and serial number of your unit available) at **(800) 253-2363**, then follow prompts.

Shipping Information

Your equipment was carefully checked before shipping. Nevertheless, you should thoroughly inspect the shipment ***before*** you sign to acknowledge that you received it.

When you sign the bill of lading, it tells the carrier that the items on the invoice were received in good condition. *Do not sign the bill of lading until **after** you have inspected the shipment.* If any of the items listed on the bill of lading are missing or damaged, do not accept the shipment until the carrier makes a notation on the bill of lading that lists the missing and/or damaged goods.

If you discover missing or damaged goods ***after*** you receive the shipment and have signed the bill of lading, notify the carrier at once and request the carrier to make an inspection. If the carrier will not make an inspection, 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 signed bill of lading. If this happens to you, file a claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs. Our willingness to assist in helping you process your claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

Safety Considerations

Read this entire manual carefully before using your new product. Do not install or operate the product until you are familiar with all operating instructions and warnings. Refer to ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service of Automotive Lifts* for more information about safely installing your Lift.

⚠ **WARNING** **California Proposition 65**. This product can expose you to chemicals including styrene and vinyl chloride which are on the list of over 900 chemicals identified by the State of California to cause cancer, birth defects or reproductive harm. **ALWAYS** use this product in accordance with BendPak BendPak's instructions. For more information go to **www.P65Warnings.ca.gov**.

IMPORTANT SAFETY INSTRUCTIONS!

SAVE THESE INSTRUCTIONS!

1. Read all instructions.
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged – until it has been examined by a qualified service person.
4. Do not let a cord hang over the edge of a table, bench, or counter or come in contact with hot manifolds or moving fan blades.
5. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords with a current rating less than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
6. Always unplug the equipment from the electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp the plug and pull to disconnect.

7. Let the equipment cool completely before putting away. Loop cord loosely around equipment when storing.
8. To reduce the risk of fire, do not operate in the vicinity of open containers of flammable liquids (gasoline).
9. Adequate ventilation should be provided when working on operating internal combustion engines.
10. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
11. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
12. Use only as described in this manual. Use only BendPak recommended attachments.
13. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.
14. To reduce the risk of injury, close supervision is necessary when this product will be used around children.
15. To reduce the risk of injury, ***never*** attempt to lift more than the rated capacity. Refer to loading instructions.
16. The Lift uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them after connecting the Lift to a power source.
17. Refer to markings for proper load on electrical receptacles.
18. Only operate your Lift between temperatures of +41°F to +104°F (+5°C to +40°C).
19. The Lift should ***only*** be operated by authorized personnel. Keep children and untrained personnel away from the Lift.
20. Do not make any modifications to the Lift; this voids the warranty and increases the chances of injury or property damage.
21. Do not use the Lift while tired or under the influence of drugs, alcohol, or medication.
22. Consider the work environment. Keep the work area clean. Cluttered work areas invite injuries. Keep areas well lit.
23. **Always** make sure the Lift is secured on Safety Locks before attempting to work on or near a Vehicle.
24. Make a thorough inspection of the product at least once a year. Replace any damaged or severely worn parts, decals, or warning labels. Replace worn or damaged parts with BendPak or BendPak approved parts and assemblies only.
25. BendPak recommends referring to the ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing your Lift.
26. P-9000 Series Lifts are Low-Rise Service Lifts. ***Use them only for their intended purpose.***
27. You ***must*** wear OSHA-approved (publication 3151) personal protective equipment at all times when installing, using, maintaining, or repairing the Lift. Leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection are ***mandatory***.
28. Keep loads balanced on the Lift. Clear the area immediately if a Vehicle is in danger of falling off the Lift. Do not make any modifications to the Lift.
29. Modifications void the warranty and increases the chances of injury or property damage. ***Do not modify any safety-related features in any way***.

30. Make sure all operators read and understand this Installation and Operation Manual. ***Keep the manual near the Lift at all times.***
31. While handling a Hydraulic Cylinder or a Hydraulic Hose, ***always*** wear gloves. In rare cases, a needle-like stream of hydraulic fluid (even at low pressure) can penetrate fingers, hands, or arms; such a puncture can feel like a bite, electric shock, or a prick. While it may seem like a minor issue, any amount of Hydraulic Fluid injected into the human body is a serious issue. Anyone suffering such a puncture wound should be ***immediately*** taken to a hospital emergency room to determine the extent of the injury. Explain the circumstances of the injury to the attending physician, including what kind of Hydraulic Fluid was involved. Do not assume a puncture wound that could have been caused by Hydraulic Fluid is a minor issue; it could be life threatening.
32. Make an inspection of the Lift ***before*** using it. Check for damaged, worn, or missing parts. Do not use it if you find any of these issues. Instead, take it out of service, then contact an authorized repair facility, your dealer, or BendPak at **(877) 432-6627** or **support@BendPak.com**.

Symbols

Following are the symbols used in this manual:

⚠ **DANGER**	Calls attention to an immediate hazard that **will** result in injury or death.
⚠ **WARNING**	Calls attention to a hazard or unsafe practice that **could** result in injury or death.
⚠ **CAUTION**	Calls attention to a hazard or unsafe practice that could result in minor personal injury, product, or property damage.
NOTICE	Calls attention to a situation that, if not avoided, could result in product or property damage.
Tip	Calls attention to information that can help you use your product better.

Liability Information

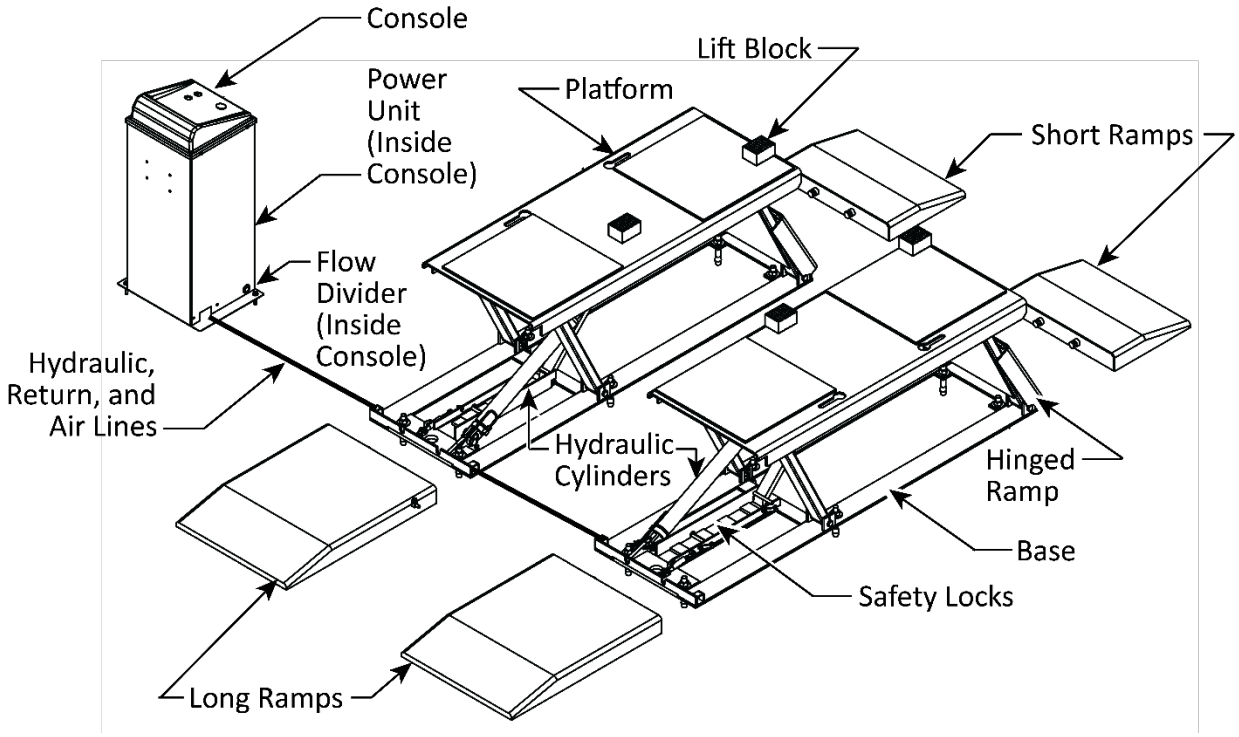
BendPak Inc. assumes **no** liability for damages resulting from:

- Use of the product for purposes other than those described in this manual.
- Modifications to the equipment without prior, written permission from BendPak Inc.
- Injury or death caused by modifying, disabling, overriding, or removing safety features.
- Damage to the equipment from external influences.
- Incorrect operation of the equipment.

Components

P-9000LT/F components include:

- **Console**. Hosts the controls for the Lift (on top) and the Power Unit (inside).
- **Power Unit**. Provides Hydraulic Power. Housed inside the Console.
- **Flow Divider**. Separates the Hydraulic Fluid Flow from the Power Unit into two circuits and ensures a smooth equal flow of hydraulic power to each.
- **Long Ramps**. Used to drive onto or off of the Platforms. Not included with the P-9000LT**F**.
- **Short Ramps**. Used to drive onto or off of the Platforms. Not included with the P-9000LT**F**.
- **Hinged Ramps**. Next to the Short Ramp hinges up when the Platforms are raised.
- **Platforms**. Flat steel plates that raise and lower. Platforms have openings for the optional Lift Arms. The Lift Blocks on the Platforms make contact with the undercarriage of the Vehicle in order to raise and lower the Vehicle.
- **Bases**. The bottoms of the Lift. They hold the Hydraulic Cylinders, Air Cylinders, Safety Locks, the holes for the Anchor Bolts, and more.
- **Frames**. The combination of the Platforms, the Bases, and the scissor components. Each P-9000LT/F is made up of two Frames, four Ramps (not the P-9000LTF), and one Console.
- **Hydraulic Cylinders**. Push the Platforms up to raise a Vehicle, move the Platforms down to lower a Vehicle.
- **Safety Locks**. Hold the Platforms while they are raised. Each Platform has four Safety Locks.
- **Air Cylinders**. Move the Platforms off the Safety Locks when you want to lower the Lift.
- **Lift Blocks**. Rubber blocks that make contact with the manufacturer's recommended Lifting Points on the underside of the Vehicle being raised. Always use the Lift Blocks to raise a Vehicle.
- **Lift Arms**. An optional accessory that provides additional raising capability for trucks and SUVs.



Frequently Asked Questions

Question: How much weight can the P-9000LT/F raise?

Answer: The P-9000LT/F can raise Vehicles up to 9,000 pounds (4,082 kg).

Q: The P-9000LT**F** is "flush mount", what does that mean?

A: It means the Bases of the P-9000LT/F are installed below the surface of the Concrete so that no Ramps are needed. Instead, the tops of the Platforms are flush with the Concrete when the Lift is fully lowered, so Vehicles just drive straight on to the Platforms. Note that sufficient Concrete depth is required ***under*** the Concrete Cutout.

Q: The P-9000LT/F is called a "pit lift", what does that mean?

A: It means that in addition to working great to raise Vehicles in any environment, the P-9000LT/F's placement is optimized when raising Vehicles spanning a pit, which you may find at an oil-change facility or automotive shop. Adding a pit lift to an oil change bay allows added under vehicle repair access.

Q: Can the P-9000LT/F be installed outside?

A: No. The P-9000LT/F is approved for **indoor** installation and use only. ***Outdoor installation is prohibited***.

Q: Can I put the Console on either side of the P-9000LT/F?

A: Yes. The Hydraulic Hoses that come with the P-9000LT/F are long enough to support the Console being up to 30″ (762 mm) away on either side.

Q: What if I want to raise a Vehicle that is slightly over the weight capacity of the Lift?

A: This is not an intended use of the product. Do ***not*** raise a Vehicle that is heavier than the rated capacity of your Lift.

Q: How many locking positions does my Lift have?

A: Four. This provides multiple heights to which you can raise the Lift, so it is easy to find the best height for the job you are performing.

Q: What do the Safety Locks do?

A: Safety Locks use gravity and intelligent engineering to hold the Platforms up once they are engaged. Even if the Lift loses power, the Platforms stay where they are if they were left engaged on Safety Locks. ***Only leave your Lift either lowered or engaged on Safety Locks.***

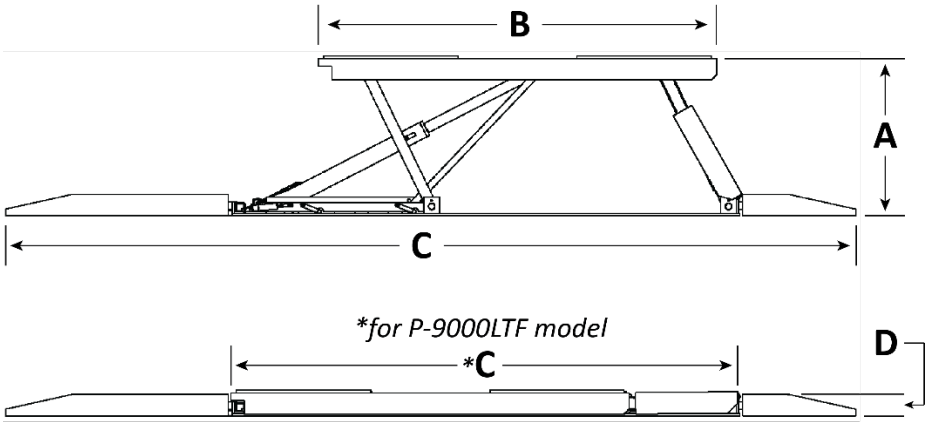
Q: Which end of the P-9000LT/F is the "front"?

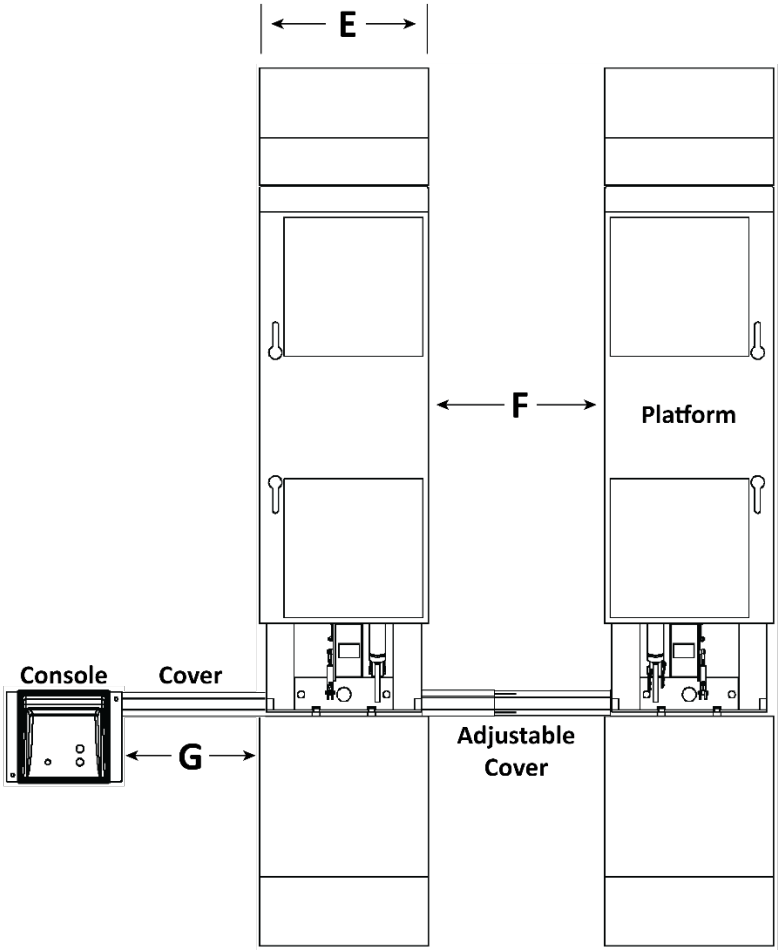
A: Neither. Vehicles can be driven on to and off of the P-9000LT/F in either direction. The standard configuration is for the Short Ramps to be installed next to the Hinged Ramps and the Long Ramps to be installed on the other end. This configuration creates a flat, extended Platform onto which you drive the Vehicle to be raised. The extended Platform keeps the Vehicle flat and well above the Platforms, making it easy to position the Lift Blocks under the Vehicle's manufacturer-recommended Lifting Points.

Q: The P-9000LT/F is described as "frame-engaging", what does that mean?

A: it means the Platforms (actually, the Lift Blocks on the Platforms) contact the frame of the Vehicle to raise it. Put another way, the Vehicle is ***not*** raised by its wheels (as is the case with 4-post Lifts).

Specifications





*P-9000LT shown. The P-9000LT**F** does not include Ramps or Covers.*

Model	**P-9000LT**	**P-9000LTF**
Style	Surface mount	Flush mount
Lifting capacity	9,000 lbs. (4,082 kg)	
A Lifting height	23.75″ (604 mm)	
Lifting height + Block	27″ (685 mm)	
B Overall Platform length	58.5″ (1,484 mm)	
C Overall length	95″ – 140.75″ (2,415 – 3,575 mm) with ramps	74.5″ (1,890 mm) no ramps
D Lowered height	4″ (99 mm)	
E Platform width	24″ (610 mm)	
F Width between Platforms	42″ (1,066 mm)	23″ to 42″ (584 to 1,066 mm)
G Max distance to Console*	Up to 30″ (762 mm)	
Maximum hydraulic pressure	2,800 PSI	
Lifting time	~35 seconds	
Air PSI Required MIN/MAX	30/100 psi	
Air CFM Required MIN	10 CFM	
Motor**	208-240V, 50/60HZ, 1-Ph, 1.5HP, Operating Amps 11	
Sound	<70 dB	
Operating Temperature	41° to 104°F (5° to 40°)	

Specifications subject to change without notice.

* With *supplied* Hydraulic Hoses and Covers.

** 110 VAC units available on request. NOTE: 220 VAC required to conform to ALI certification.

Installation Checklist

Following are the steps needed to install a P-9000LT/F Lift. Perform them in the order shown.

☐ 1. Review the installation Safety Rules.

☐ 2. Plan for Electrical Work.

☐ 3. Make sure you have the necessary Tools.

☐ 4. Select the Installation Location.

☐ 5. Make sure there is adequate clearance on all sides of the Lift.

☐ 6. Create the Concrete Cutouts (P-9000LTF only).

☐ 7. Create Chalk Line Guides (P-9000LT only).

☐ 8. Lift the Platforms off the Bases.

☐ 9. Learn about Embedment.

☐ 10. Anchor the Bases.

☐ 11. Set up the Console and attach the Power Unit.

☐ 12. Learn about Hydraulic Fluid Contamination.

☐ 13. Learn about Thread Sealants.

☐ 14. Connect the Hydraulic Hoses for a Standard 208-240 VAC Power Unit.

☐ 15. Connect the Hydraulic Hoses for a 110 VAC Power Unit.

☐ 16. Learn about Compression Fittings and Tubing.

☐ 17. Connect the Return Line.

☐ 18. Connect the Air Line.

☐ 19. Connect the Buttons.

☐ 20. Connect to Power. ***Requires Electrician***.

☐ 21. Install a Power Disconnect Switch and Thermal Disconnect Switch. ***Requires Electrician***.

☐ 22. Fill the Hydraulic Fluid Reservoir.

☐ 23. Test the Lift.

☐ 24. Add the Ramps (P-9000LT only).

☐ 25. Review the Final Checklist.

Installation

This section describes how to install your P-9000LT/F. Perform the steps in the order listed.

⚠ **WARNING** ***Only use the factory-supplied parts that came with your Lift***. If you use parts from a different source, you void your warranty and compromise the safety of everyone who installs or uses the Lift. If you are missing parts, visit **bendpak.com/support** or call **(800) 253-2363**, then follow prompts.

The P-9000LT/F is supplied with installation instructions and concrete fasteners that meet the criteria set by the most recent version of the American National Standard "Automotive Lifts – Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV.

Lift buyers are responsible for regional, structural, and/or seismic anchoring requirements specified by any other agencies or codes, such as the Uniform Building Code or International Building Code.

Safety Rules

When installing the Lift, your safety depends on proper training and thoughtful operation.

⚠ **WARNING** Do not install this equipment unless you have automotive Lift installation training. Always use proper tools, such as a Forklift or Crane, to move heavy components. Do not install this equipment without reading and understanding this manual and the safety labels on the unit.

BendPak recommends referring to the ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing your Lift.

⚠ **WARNING** You ***must*** wear OSHA-approved (publication 3151) personal protective equipment ***at all times*** during installation: leather gloves, non-skid steel-toed work boots, eye protection, back belts, and hearing protection.

Preparing for Electrical Work

You will need to have a licensed Electrician available at some point during the installation.

⚠ **DANGER** All wiring ***must*** be performed by a licensed Electrician.

The Electrician needs to:

- **Connect the Power Unit to a power source**. This is generally done near the end of the installation. Installing the Power Unit and connecting the Power Unit to power are separate procedures; you do not need an Electrician to install the Power Unit. The Electrician needs to bring appropriate components to connect the Power Unit to the power source.

  If you have a 110 VAC Power Unit, you do not need an Electrician to connect it.
- **Install a Power Disconnect Switch**. A Power Disconnect Switch gives you a way to shut down the Lift in the event of an electrical circuit fault or emergency situation. Refer to **Install a Power Disconnect Switch** for more information.
- **Install a Thermal Disconnect Switch**. A Thermal Disconnect Switch automatically shuts down the Lift in the event of an overload or an overheated motor. Refer to **Install a Thermal Disconnect Switch** for more information.

Tools

You may use some or all of the following tools:

- Rotary hammer drill or similar
- 3/4″ , 3/8″ ,1-1/4″ masonry bits
- Hammer
- Open-end wrench set: SAE and Metric
- Socket and ratchet set, SAE and Metric
- Medium crescent wrench
- Chalk line
- Medium slot screwdriver
- Tape measure
- Forklift or Shop Crane

Select a Location

Keep the following in mind when selecting a location for your P-9000LT/F:

- **Enough space**. Make sure there is adequate space on all sides, plus enough space above for the Vehicles you will be raising. See **Clearance Around the Lift** for more information.
- **Radial Shift**. When you raise the Lift, the geometry of the scissor arms moves the Platforms up at an angle, towards the Hinged Ramp end. The amount of radial shift for the P-9000LT/F is approximately 12″ (305 mm). Note that radial shift is always the direction towards the Hinged Ramp end of the Lift, no matter which way the Vehicle is facing.
- **Check for overhead obstructions**. The site must be free of overhead obstructions.
- **Concrete specifications**. Do not install the Lift on cracked or defective concrete. Make sure the Concrete is at least 4.25″ thick, 3,000 psi, and cured for at least 28 days (if newly poured). Make sure the floor is defect-free, dry, and level. For flush-mount models, there must be 4.25″ of concrete ***below the bottom of the Concrete Cutout***.

NOTICE Installing a Flush-Mount Lift (P-9000LTF) requires **DEEPER** Concrete depth than a standard Lift. The Concrete Cutouts must be recessed the height of the Frame (Base plus Platform) and then have the required 4.25″ of Concrete depth ***below the bottom*** of the Concrete Cutouts (for the Anchor Bolts).

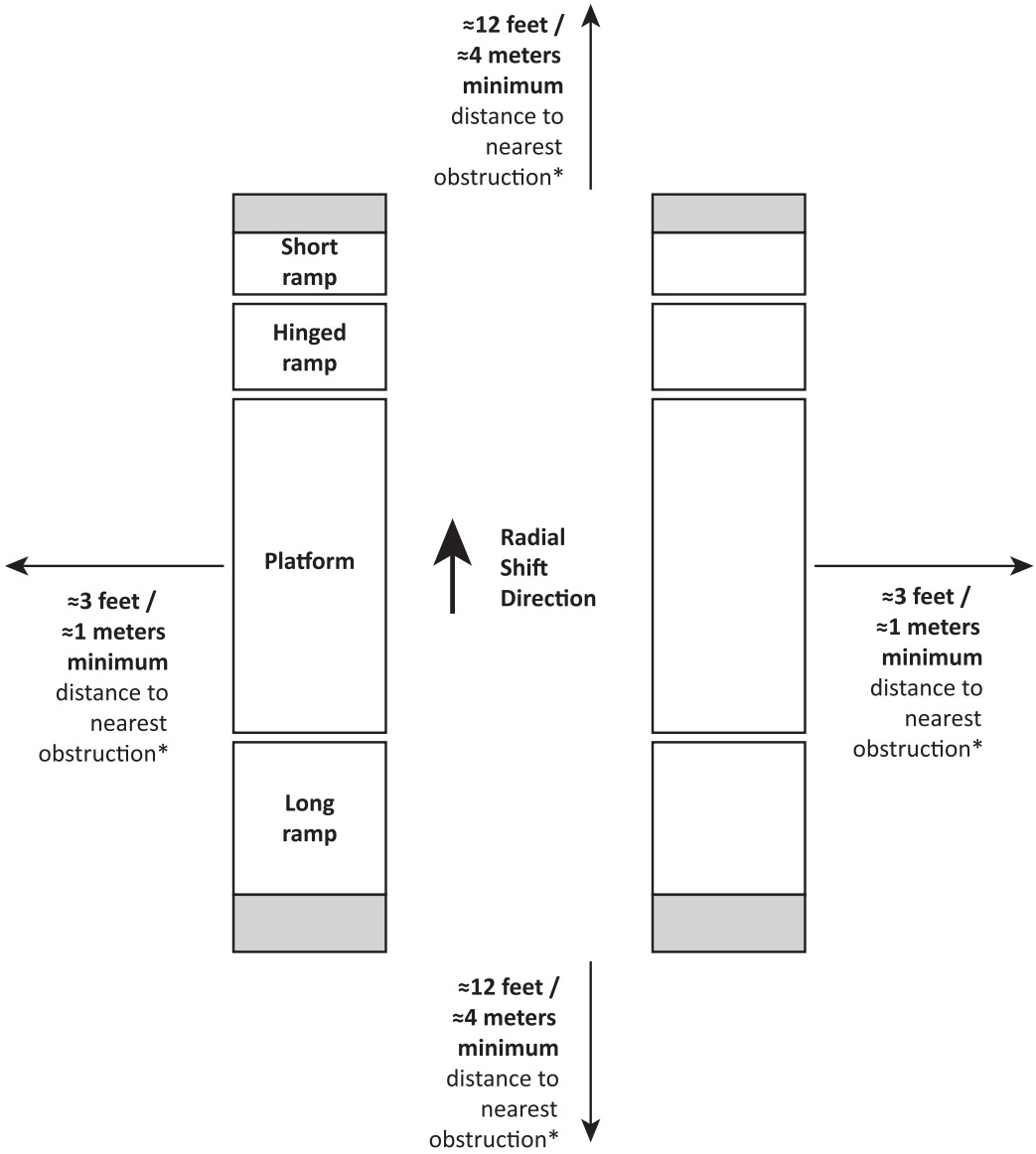
⚠ DANGER Do not install the Lift on a surface with 3° of slope or more. A 3° slope or greater could lead to property damage, personal injury, or death; the slope makes the Lift less stable, which could lead to Vehicles falling off of it.

- **Power**. Depending on Model choice, use a 208 – 240 VAC or 110 VAC power source.
- **Operating temperature**. The Lift is designed to be used between temperatures of 41º to 104ºF (5º to 40ºC).
- **Outdoor installation**. The Lift ***should not*** be installed outside. It is for ***indoor use only***.
- **Second floor installs**. Do not install the Lift on a second floor or elevated floor without first consulting the building architect and getting their permission.
- **Dress properly**. Do ***not*** wear loose clothing or jewelry; unkept long hair; keep hair, clothing, and gloves away from moving parts.

⚠ **WARNING** You ***must*** wear OSHA-approved (publication 3151) personal protective equipment at all times when installing, using, maintaining, or repairing the Lift: leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection.

Clearance Around the Lift

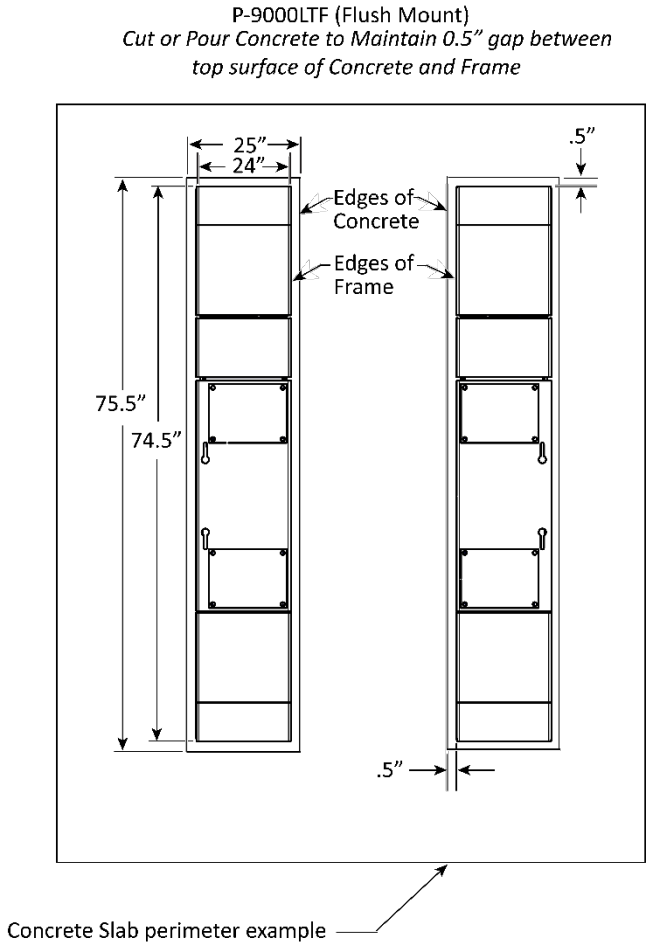
For safety purposes, a certain amount of clear space around the Lift is ***required***.



***** If one end is ***never*** going to be used to drive on or off the Lift (stationary object etc., impediment), then only ≈3 feet (≈1 meter) is needed to the nearest obstruction on that end.

P-9000LTF does not feature Long or Short ramps. Not necessarily to scale.

P-9000LTF *Only*: Prepare the Concrete Cutouts



It is important to understand the following ***before*** creating the Concrete Cutouts for your Lift:

NOTICE Installing a **Flush-Mount Lift** requires **DEEPER** Concrete depth than a **Standard Lift**. The Concrete Cutouts must be recessed the height of the Frame (Base plus Platform) and then have the required 4.25″ of Concrete depth ***below the bottom*** of the Concrete Cutouts (for the Anchor Bolts).

- A Flush-Mount Lift is one that sets in a recessed section of the floor, called a Concrete Cutout. For more details, see page 18.
- Consult with your Concrete specialist ***before*** creating your Concrete Cutouts.
- Concrete Cutouts must be created in a ***Concrete*** floor; no other surface (asphalt, dirt, anything else) is acceptable.
- You can create one large Concrete Cutout (to hold both Frames) or two smaller Concrete Cutouts, one for each of the Lift's two Frames. This section assumes you are creating two.
- Concrete Cutouts must be a specific depth below the rest of the floor so when the Flush-Mount Lift is put down into the Concrete Cutout, the top of the Lift's Platforms are flush with the floor.
- To install a Flush-Mount Lift, you must create the Concrete Cutouts in advance, unless you already have Concrete Cutouts of the correct dimensions.

- You need to create your Concrete Cutouts at least a month in advance, as the Concrete ***must cure for at least 28 days*** before it is strong enough to support Anchor Bolts.
- There are three important factors to keep in mind when you are creating Concrete Cutouts: the Concrete depth ***below the bottom*** of the Concrete Cutouts must be deep enough for the Anchor Bolts, the size of the two rectangles must be big enough to fit the Bases of the Lift, and you will need a method of connecting the hoses and lines to the Console.
- Regarding the Hoses and Lines: because the Lift's Bases are recessed, the Hydraulic Hoses and the Air and Return Lines start out recessed. Your plan for the Concrete Cutouts needs to account for how the hoses and lines will be routed to the Console.

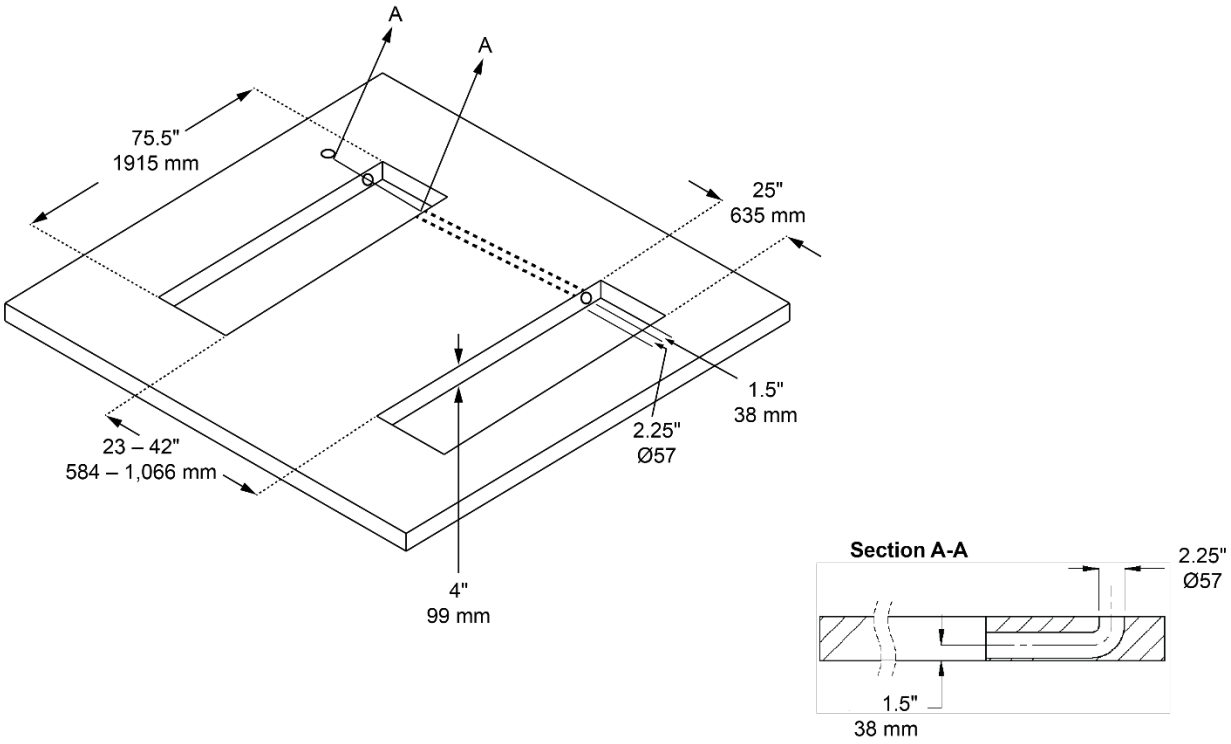
  Some installers use PVC tubing to create a conduit between the two Bases using the Hose Routing Rings on the inside of the Lift when they are creating their Concrete Cutouts. This serves the Hydraulic Hoses and the Air and Return Lines, with a protected route between the two Bases.

  To connect to the Console, some installers use PVC tubing to create a connection between the Console and the Hose Routing Ring on the Base closest to the Console. Others use the round Access Hole in the Base between the two Hose Routing Rings. The Access Hole is frequently used when the Lift is installed over a pit.

  Consult with your Concrete specialist ***before*** creating your Concrete Cutouts.
- There are certain decisions you need to make ***before*** you create your Concrete Cutouts: where the Lift is going to go, where the Console will be (and thus how far away from the Lift it will be), and how far apart the two Frames will be.
- Regarding the distance between the two Frames: the P-9000LTF Frames can be from 23″ to 42″ (584 to 1,066 mm) apart. You will need to decide how far apart you want your Frames ***before*** you create your Concrete Cutouts.

  Important: BendPak strongly recommends consulting with your Concrete specialist ***before*** creating your Concrete Cutouts.
- The diagram on the following page provides information you and your Concrete specialist will need, to create your Concrete Cutouts.

If you need to prepare a recessed surface for the P-9000LTF, use the following diagram as a guide.



NOTICE Installing a **Flush-Mount Lift** requires **DEEPER** Concrete depth than a **Standard Lift**. The Concrete Cutouts must be recessed the height of the Frame (Base plus Platform) and then have the required 4.25″ of Concrete depth ***below the bottom*** of the Concrete Cutouts (for the Anchor Bolts).

The Concrete Cutout settings for a **P-9000LTF** are:

- **Length**. The Length of each Frame is 74.5″ (1,890 mm); add 1″ (25 mm) for installation tolerance≈**75.5″ (1,915 mm)**.
- **Width**. The Width of each Frame is 24″ (610 mm); add 1″ (25 mm) to provide ≈**25″ (635 mm)**.
- **Depth**. The Lowered height of each Frame is **4″ (99 mm)**. Do not add to this value.
- **Distance Between**. The two Frames can be from **23** to **42″ (584** to **1,066 mm)** apart. Do ***not*** add to this value.
- **Distance to Console**. The supplied hydraulic hose allows the Console to be up to **30″ (762 mm)** from the nearest Base. Do ***not*** add to this value.

NOTICE If you create your Concrete Cutouts and then change your mind about the Distance Between or realize there is a measuring mistake, it is **very difficult to correct**. BendPak recommends you ***check your plan*** several times *before* pouring your Concrete Cutouts.

Create Chalk Line Guides

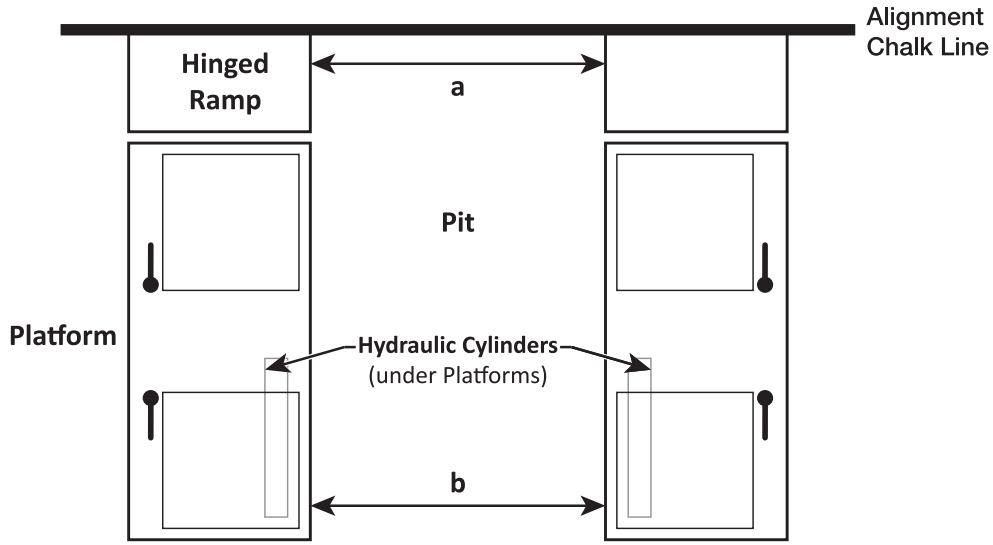
Make sure to plan out, *in advance*, where the P-9000LT/F is going to be located:

- **Clearance**. If you are installing the P-9000LT/F over a pit, you are restricted as to where you can put it. Be sure to make sure there is adequate clearance on all sides.
- **Console**. The Console must be positioned near the Lift; the Hydraulic Hoses supplied with the P-9000LT/F are optimized for up to 30″ between the Lift and the Console.
- **Operator**. The Operator at the Console ***must*** have a full, unobstructed view of the Lift.
- **Power**. The Console must also be positioned near an appropriate power source.
- **Hydraulic Cylinders on the inside**. The two Frames are ***not*** interchangeable. ***The Hydraulic Cylinders must go on the inside*** (on the pit side if installing over a pit).
- **Set up Chalk Line Guides**. Create Chalk Line Guides to make sure the Lift is installed where desired.

To create Chalk Line Guides:

1. Decide where you want the Lift.
2. Create an Alignment Chalk Line where you want one end of the P-9000LT/F.

   Make the Alignment Chalk Line ***longer*** than the width of the P-9000LT/F and the Pit.



Top view. Not drawn to scale. Not all components shown.

3. Move the two Frames into position: the Hinged Ramp ends just inside the Alignment Chalk Line and the inside edges of the Frames aligned with the Pit.

Tip This procedure assumes you are installing the Lift over a pit. If not, create two additional Chalk Line Guides: they need to be perpendicular to the Alignment Chalk Line, parallel to each other, and the distance apart you want the two Platforms (in the range of 23″ to 42″ (584 mm to 1,066 mm).

4. Measure the distance between the two Platforms at points **a** and **b**; the two Platforms need to be the same distance apart at both ends.

Important: **a** and **b *must*** be the same distance apart and parallel to the Pit.

5. When the Platforms are in the correct location, they can be anchored into place.

Lift the Platforms Off the Bases

You must raise the Platforms off the Bases in order to complete some of following procedures, giving you the space to work.

When you raise the Lift, make sure to engage it on a Safety Lock.

⚠ **WARNING** BendPak recommends using at least three capable assistants to lift the Platforms off the Bases: one person on each end to hold down the Base and one person to operate the Forklift or Shop Crane to raise the Platform. Use ***care*** when raising the Platforms off their Bases; they are heavy and can be difficult to maneuver.

To lift the Platforms off the Bases:

1. Position one assistant at each end of the Platform you want to raise off the Base.

   Use two assistants to hold down the Base while the Platform is raised.

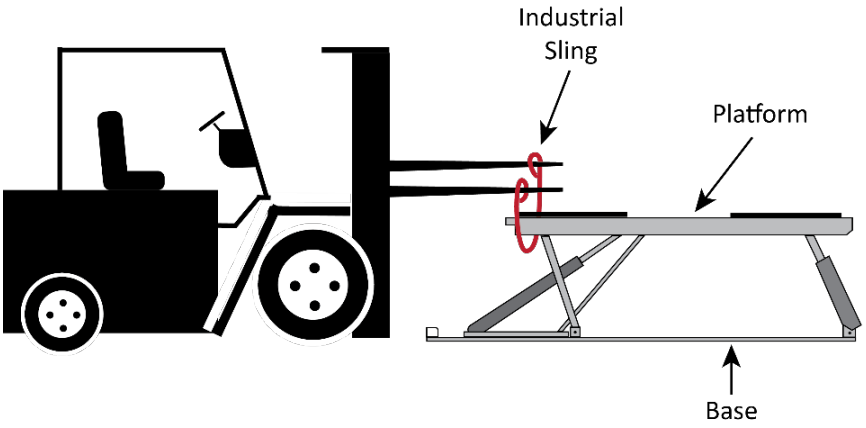
   Only raise one Platform at a time.

2. Have the third person use a crowbar or other device to create separation between the Platform and the Base.

   Make sure the Base is held down while you create the separation between Platform and Base.

3. Once the Platform and Base are separated by more than .5″ (≈13 mm), put industrial slings (straps) around each end, attach them to a lifting device such as a Forklift or Shop Crane, and then continue raising the Platform off the Base.

   The following drawing shows the Platform being lifted off the Base.



Make sure the Base is held down as the Lifting Device raises the Platform.

   Side view. Not drawn to scale. Not all components shown.

4. When the Platform is above the top Safety Lock, lower it back down onto the top Safety Lock.

   ⚠ **WARNING** Do not raise the Platform a random distance; leave it on the top Safety Lock.

5. Perform the same procedure on the second Platform and Base.

About Embedment

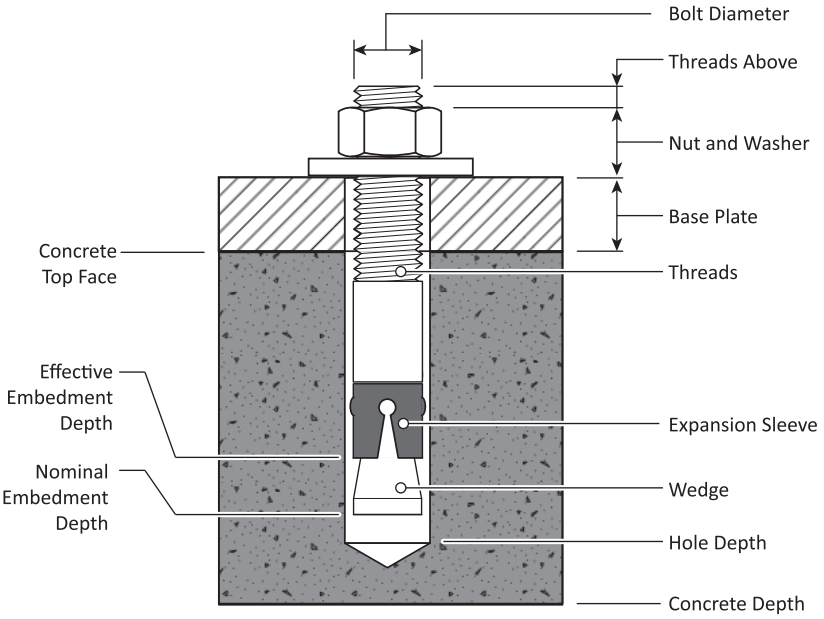
Anchor Bolts (also called Wedge Anchors) achieve holding strength from how deep into the Hole the Anchor Bolt is installed (called embedment) and how forcefully the Expansion Sleeve presses into the Concrete (based on how much torque is applied).

To achieve *enough* embedment, you need to understand *Effective* Embedment, which means the location in the Hole where the Expansion Sleeve presses into the Concrete. This is where the Anchor Bolts create holding strength; the farther down into the Hole, the greater the holding strength.

(The technical definition of Effective Embedment is the distance from the surface of the base material to the deepest point at which the load is transferred to the base material; the "base material" in our case being the Concrete into which the Anchor Bolts are being installed.)

Do not confuse Effective Embedment with Nominal Embedment, which is how far down into the Hole the bottom of the Anchor Bolt is.

As shown below, the two are not the same. Nominal Embedment is ***not*** where the load is transferred to the base material, *Effective Embedment* is.



Not necessarily to scale.

The Anchor Bolts shipped with your product have letters stamped into their tops, showing their length.

For example:

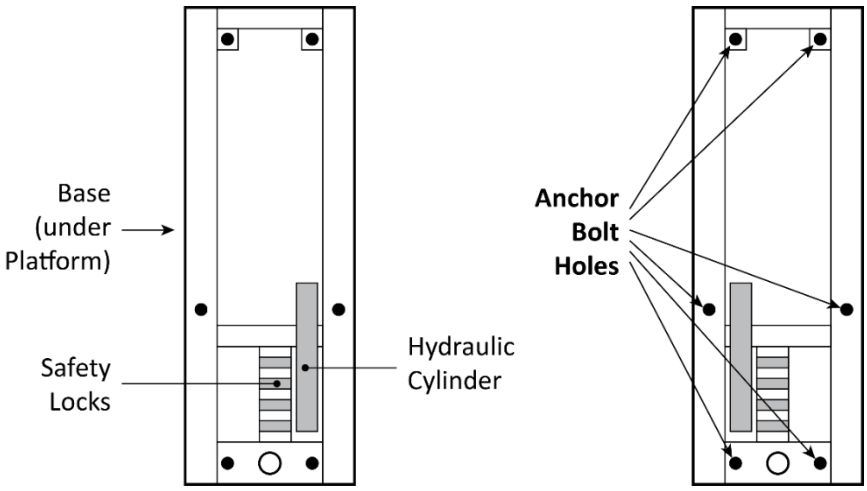
- 4.75″ (120 mm) Anchor Bolts are stamped with a **G**.
- 6.30″ (160 mm) Anchor Bolts are stamped with a **J**.

Anchor the Bases

Both Bases have six holes in them for anchoring the Base.

Once the Anchor Bolts are torqued into position, they are not easily removed. BendPak strongly recommends making sure the Bases are in the correct location ***before*** anchoring them into place.

The following drawing shows the locations of the six Anchor Bolt holes in each P-9000LT Base.



Drawing not necessarily to scale. Not all components shown.

Concrete specifications are:

- **Depth**: 4.25″ (108 mm) thick, minimum
- **PSI**: 3,000 PSI, minimum
- **Cured**: 28 days, minimum

Anchor Bolt specifications are:

- **Length**: 4.75″
- **Diameter**: 0.75″
- **Effective embedment depth**: 2.75″ minimum
- **Anchor torque**: 85 – 95 pound feet (not less than 80 or more than 105)

The Concrete floor where you want to install your Lift ***must*** meet the following requirements:

- The floor must be a flat, Concrete floor. It must be level; ***do not install the Lift on a surface with more than 3° slope***.
- Do not install Anchor Bolts into cracked or defective Concrete or on expansion seams. All Anchor Bolts must be at least 6″ away from expansion seams, control joints, or other inconsistencies in the Concrete.
- Check the floor for the possibility of it being a post-tension slab. In this case, contact the building architect before drilling. Using ground penetrating radar may help you find the tensioned cable.

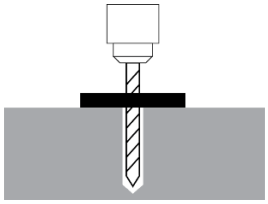
⚠ DANGER Cutting through a tensioned cable can result in injury or death. Do not drill into a post-tension slab unless the building architect confirms you are ***not*** going to hit a tensioned cable, or you have located it using ground penetrating radar. ***If colored sheath comes up during drilling, stop drilling immediately***.

⚠ WARNING ***Only use the factory-supplied parts that arrived with your Lift***. If you use parts from a different source, you void your warranty and compromise the safety of everyone who installs or uses the Lift.

To anchor your Lift:

6. Make sure the Bases are in the correct location.
7. Make sure the Platforms are raised to, and engaged on, the top Safety Lock (this gives you room under the Platform to access the Anchor Bolt holes in the Bases).
8. Using the Anchor Bolt Holes in the Bases as guides, drill each hole **4″ (101 mm) deep**.

   Note: If you prefer, you can mark the Anchor Bolt Hole locations, move the Bases out of the way, drill the holes, and then move the Bases back into position.

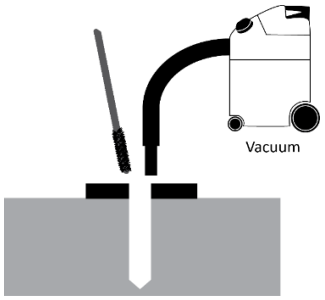


Go in straight; do not let the drill wobble.

Use a carbide bit (conforming to ANSI B212.15).

The diameter of the drill bit ***must*** be the same as the diameter of the Anchor Bolt. So, if you are using a ¾″ diameter Anchor Bolt, for example, use a ¾″ diameter drill bit.

9. Use a vacuum to thoroughly clean each hole.

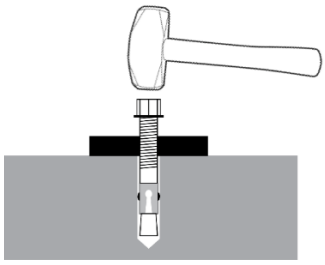


If a vacuum is not available, use a wire brush, hand pump, or compressed air.

Do ***not*** ream the hole. Do ***not*** make the hole any wider than the drill bit made it.

Important: You ***must*** wear OSHA-approved personal protective equipment (such as Safety Glasses) when anchoring the Bases.

10. Make sure the Washer and Nut are in place and flush with the top of the Bolt, then insert the Anchor Bolt into the hole.



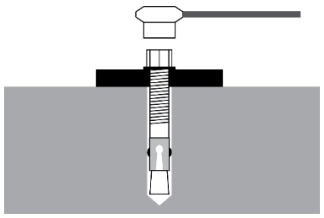
The Expansion Sleeve of the Anchor Bolt may prevent the Anchor Bolt from passing through the hole in the Base; this is normal. Use a hammer or mallet to move the Expansion Sleeve through the Base and down into the hole.

Even using a hammer or mallet, the Anchor Bolt should only go into the hole part of the way; this is normal. If the Anchor Bolt installs all the way in with little or no resistance, the hole is too wide.

11. Hammer or mallet the Anchor Bolt the rest of the way down into the hole.

    Stop hammering when the Washer is snug against the Base.

12. Wrench each Nut ***clockwise*** to the recommended installation torque, **85 – 95 pound feet** (not less than 80 or more than 105), using a Torque Wrench.



Important: Do ***not*** use an impact wrench to torque the Anchor Bolts.

Wrenching the Nut forces the wedge up, pushing out the Expansion Sleeve and pressing it tightly against the Concrete.

Set Up the Console and Attach the Power Unit

The Console arrives unassembled from the factory.

Note: Some Consoles are occasionally shipped assembled.

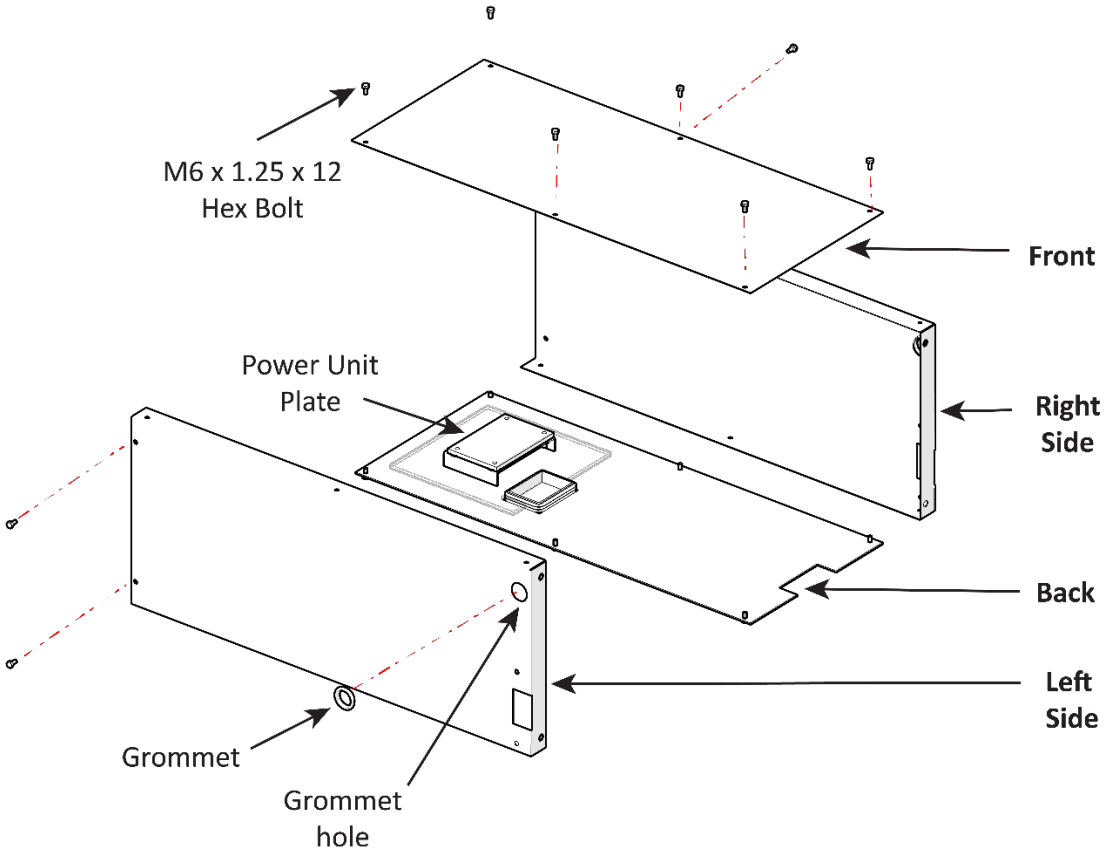
The included Hydraulic Hoses require the Console to be within 30″ of the Lift.

Tip If you want to set up the Console farther than 30″ from your Lift, you will need Hydraulic Hoses that are long enough to reach the Lift from the desired location. You may be able to obtain these lines from a local hydraulic shop. You will also need longer Return and Air Lines.

The following procedure includes instructions for anchoring the Console into place. If you prefer, you can defer anchoring the Console.

Why would you defer anchoring the Console for later? Anchoring the Console is a permanent decision. Delaying the anchoring allows a chance to evaluate how well you like your first choice for the location of the Console. It is easier to change the Console location later if it is not anchored.

When you decide to anchor the Console into place, return to this section and follow the instructions starting with Step 8.



Not to scale. Graphic shows the Power Unit Plate is shown flat on the ground.

To assemble the Console and attach the Power Unit:

Refer to the figure on the previous page

1. Select a site for the Console that permits Operators to have a full, unobstructed view of the Lift.

   If you are going to use the included Hydraulic Hoses, the Console can go on either side of the Lift (on the end of the Lift with the Hydraulic Cylinders), up to 30″ away from the closest side.

2. Arrange all of the Console components near where you are going to put it together.
3. Put the Grommets into place in the Grommet Holes on the bottom of the Left and Right Sides.
4. Put the Left Side on the left and the Right Side on the right, then attach both of them to the Back; make sure to orient the Back so that the ***Power Unit Plate is on the inside***.

   The Back attaches on the *outside* of the two sides.

   Do not attach the Nuts at the top of the sides or the Back at this point; these will be attached later when you are ready to attach the cover of the Console.

⚠ **WARNING** When accessing the Power Unit inside the Console for maintenance, do ***not*** use the Back Panel as the point of entrance; the Power Unit is mounted to the Back Panel. If the Back Panel is removed, the weight of the Power Unit may cause it to fall over and risk product damage and/or personal injury to anyone nearby.

5. Remove the Power Unit from its packing material.
6. Using the supplied Nuts and Bolts, attach the Power Unit to the Power Unit Plate on the inside Back of the Console.

   Important: Do ***not*** make any of the ***connections*** to the Power Unit at this point.

7. Attach the Front of the Console, then the Cover.

   Important: All of the components of the Console are now in place; hose connections will be outlined later in the manual. At that time, both the Console Cover and the Front will need to be removed to access.

8. If you are ready to anchor the Console, find the holes in the bottoms of the two sides (***on the inside***); the Anchor Bolts go into these holes.
9. Using the holes as a guide, drill two holes 3/8″ wide by 2.5″ deep into the Concrete.

   Go in straight; do not let the drill wobble. Use a carbide bit (conforming to ANSI B212.15).

10. Remove all dust from the holes.

    Use a wire brush, vacuum, hand pump, or compressed air. Do ***not*** ream the hole. Do ***not*** make the hole any wider than the drill bit made it.

11. Insert an Anchor Bolt with Washer into each hole, then tap it down into the hole.
12. Tighten the Anchor Bolt ***clockwise*** to the recommended installation torque, 50 – 65 pound feet, using a Torque Wrench.

IMPORTANT! PLEASE READ NOW

Hydraulic Fluid Contamination

Hydraulic Fluid Contamination poses a ***serious*** issue for your Lift; contaminants such as water, dirt, or other debris can get into the Hydraulic Hoses and Fittings on your Lift, making your new Lift inoperable and unusable.

Your Lift is shipped with clean components; however, BendPak strongly recommends that you take secondary precaution and clean all Hydraulic Hoses and Fittings prior to making connections. It is better and less costly to take these extra steps now so that you do not need to take your Lift out of service later to fix issues that could have been prevented at the time of the installation.

There are several ways to clean Hydraulic Hoses and Fittings:

- **Compressed air**. Use an air compressor to blow out contaminants from each Hydraulic Hose and Fitting prior to installation. Clean, dry air is preferred. Wear eye protection (safety glasses, goggles, or face shield) when using compressed air for cleaning. Never point an air hose nozzle at any part of your body or any other person.
- **Fluid flushing**. As long as the Hydraulic Fluid is clean and compatible with the system fluid, you can flush Hoses and Fittings to create turbulent flow and remove particulates. Always ensure that the fluid itself is contaminant-free.

Some additional steps that will help keep the Hydraulic Fluid clean:

- **Remove old thread seal tape**. Some ports on the Hydraulic Cylinders are shipped with temporary plugs secured with thread seal tape, so make sure to thoroughly remove any leftover thread seal tape that may have inadvertently entered the Hydraulic System.
- **Use liquid thread sealant only.** Teflon paste thread sealant or Loctite™ 5452 thread sealant is recommended for all NPT Fittings. Do not over tighten NPT Fittings; they may crack. Do not use thread seal tape on flare-end JIC 37-degree bevel Fittings or ORB O-Ring Fittings.
- **Always use clean equipment**. If you use a dirty bucket or funnel to transfer the Hydraulic Fluid into the Hydraulic Fluid Reservoir, the contaminants will likely be introduced into the Fluid. When using cleaning rags, use a lint-free rag.
- **Proper storage**. Keep the Hydraulic Fluid sealed in its container until ready for use. Store the Fluid in a clean, dry, and cool area.
- **Cover the Hoses and Fittings**. Before installation, do not leave the ends of the Fittings exposed; the same applies for Hydraulic Hoses. As a general rule, keep the Hydraulic Hoses and Fittings capped and kept in a clean area until ready for use.
- **Filter the new Hydraulic Fluid**. Just because it is new does not necessarily mean it is *clean*. Use an offline filtration cart or kidney loop system to make sure the Hydraulic Fluid is clean before being transferred into the Reservoir (even using a heavy duty nylon mesh screen is better than trusting what is left at the bottom of the barrel).
- **Avoid mixing different types of Hydraulic Fluid**. If Hydraulic Fluid needs to be replaced, make sure to flush the Hydraulic System of the old Hydraulic Fluid before you add the replacement fluid; do not mix the two together.

Hydraulic System Warnings:

⚠ **DANGER** Failure to observe these warnings can result in serious personal injury including, in rare cases, death.

⚠ **DANGER** Changes to the output pressure may render the power unit incompatible with pressure limitations of other components in the Hydraulic Circuit. This may cause catastrophic failure of those components, and could result in property damage, serious personal injury, or death.

⚠ **DANGER** The Hydraulic System can contain high pressure which, if suddenly released, can cause serious injury or death.

⚠ **WARNING** BendPak Does not supply Hydraulic Fluid or Lubricants with this Lift. **Always** refer to the Material Safety Data Sheet (MSDS) for safe handling and disposal information. MSDS are available from the Hydraulic Fluid or lubricant's supplier or manufacturer.

⚠ **WARNING** The Hydraulic Hoses and connections ***must*** be inspected before any attempt to raise a Vehicle is made.

⚠ **WARNING** Double check to ***verify*** all Hydraulic Hose connections and fittings, including unused auxiliary port plugs on the Power Unit, the Flow Divider, the Cylinders and anywhere else in the Hydraulic System are tightened.

⚠ **WARNING** The Power Unit is a Hydraulic Pump capable of developing pressures in excess of 5,000 psi (345 BAR). A pressure relief valve is used to set the pressure at the desired level. Tampering with, adjusting, modifying, or removing the relief valve is extremely dangerous and is not recommended. Only trained Hydraulics Technicians should make adjustments to the relief valve, using calibrated Hydraulic Pressure gauges to assure the proper pressure setting is achieved.

⚠ **WARNING** Do ***not*** attempt to connect or disconnect Hydraulic Hoses while the equipment is loaded or while a Vehicle is on the Lift, or the Hydraulic System is under pressure.

⚠ **WARNING** Keep bare hands away from Hydraulic Fluid; always wear gloves when handling Hydraulic Fluid, Cylinders or Hydraulic Hoses.

⚠ **WARNING** When handling Hydraulic Fluid, always observe the safety instructions from the manufacturer.

⚠ **WARNING** **Always** promptly clean any Hydraulic Fluid spills. If a leak is the source of the spill, lockout the Lift to prevent use until the Hydraulic System is repaired.

⚠ **WARNING** Do **not** attempt to service the Power Unit through the rear panel. Only access the Power unit through the Front of the Console.

⚠ **WARNING** If you choose to change the Hydraulic Hose lengths, ***the two hoses supplying the Hydraulic Lift Cylinders' length must be within 5% of each other***. The MDS-6 Lift is a Hydraulically Balanced Lift. If the hose lengths vary by more than 5% there is a risk of the Platforms rising unevenly. Choose a certified Hydraulic Hose fabrication facility to assemble the replacement hoses.

About Thread Sealants

Liquid Thread Sealant lubricates and fills the gaps between the Fitting threads and leaves no residue that could contaminate the Hydraulic Fluid.

Other types of Thread Sealants (like Teflon Tape) can shred during installation or removal and eventually enter the Hydraulic System.

Thread Sealant can be used with most Hydraulic Fittings, although you only need to use it with NPT connectors.

Apply the thread sealant when the ambient temperature is between +46.5°F to +70°F (+8°C to 21°C)

To apply Thread Sealant:

1. Make sure the Fittings and connectors you are going to use are clean and dry.

   If you are adding Thread Sealant to a Fitting or connector that has already been used with a different sealant, use a wire brush to thoroughly remove the old sealant before adding more.

2. Apply a small amount of Thread Sealant to the first four threads of the Fitting.

⚠ **WARNING** Always wear the proper protective equipment when handling Thread Sealant.

   You only need a small amount because the sealant spreads to the other threads as it is tightened into place.

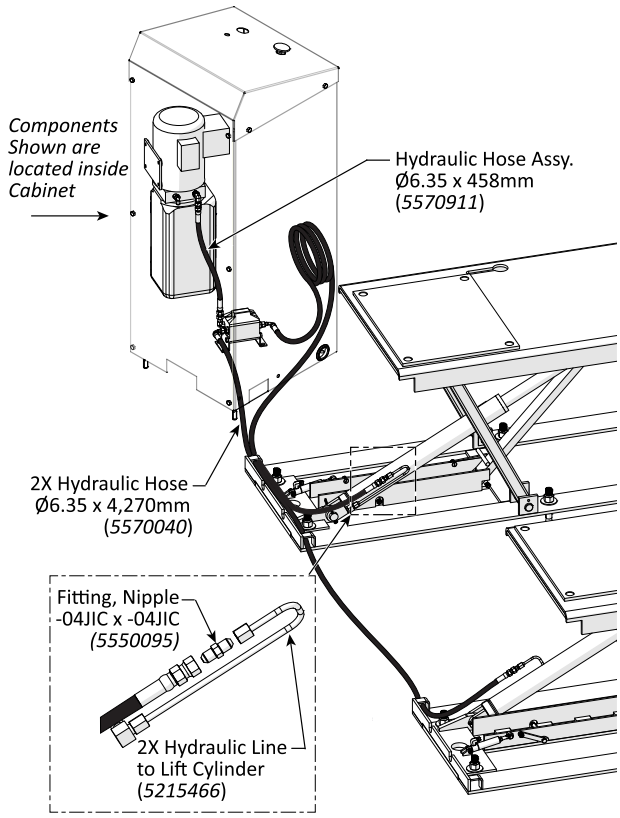
   If you add too much, the excess liquid will be pushed out when the Fitting is tightened; use a rag to wipe the excess.

3. Tighten the Fitting into the connector; do ***not*** over tighten the Fitting.
4. Allow the manufacturer-recommended curing time before pressurizing the system.

Connecting the Power Unit, Flow Divider, and Hydraulic Hoses

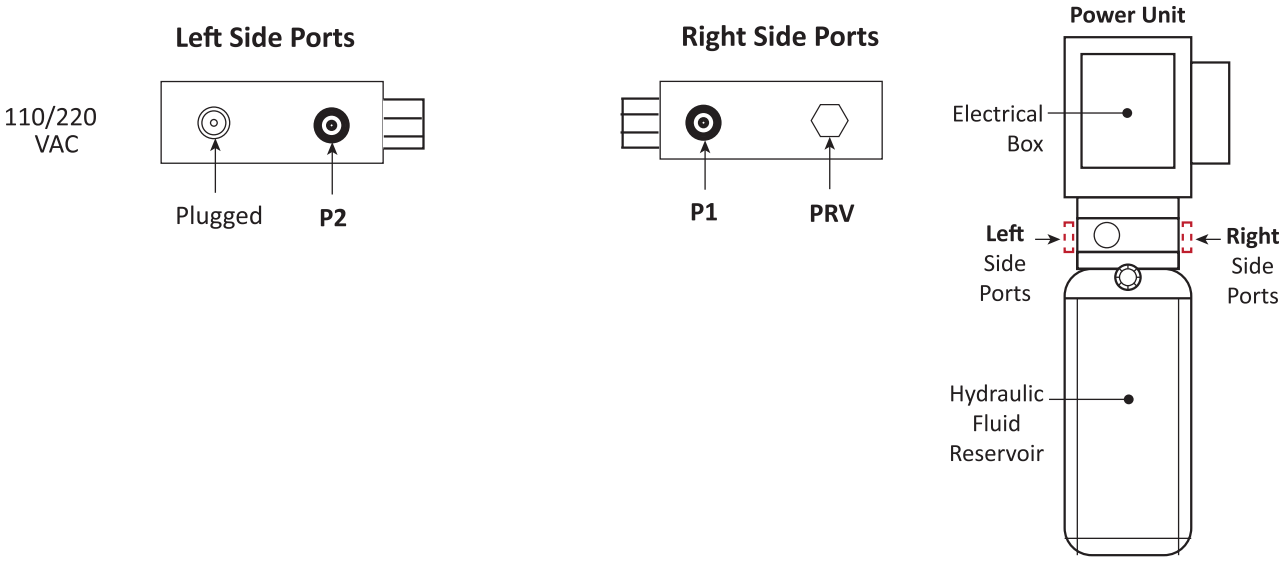
The following graphic illustrates the arrangement of the PL9000's main components. Final connections will be detailed later in this manual. If the Platforms are not already on their top Safety Locks, raise them now with a shop crane or other suitable lifting device, and engage them **SECURELY** on their top locks. Placing Jack Stands under both platforms to provide a secondary measure of safety during installation is recommended. Note that there is no access to route and connect the Hydraulic Hoses with the Platforms lowered.

Below graphic illustrates components routed and attached (Final connections will be detailed later in this manual).



To begin assembling the following hydraulic apparatus between the Power Unit, Flow Divider, and Lift Cylinders, separate these items from the Parts Box. One Elbow NPT Fitting (5550106), one Elbow Fitting ORB (5550103), two Nipple Fittings (5550095), two equal length Hydraulic Hoses (5570040), the shorter Hydraulic Hose (5570911), two Hydraulic Straight Fittings (5550100), two Elbow Fittings (5550086), and two hydraulic metal lines (5215466).

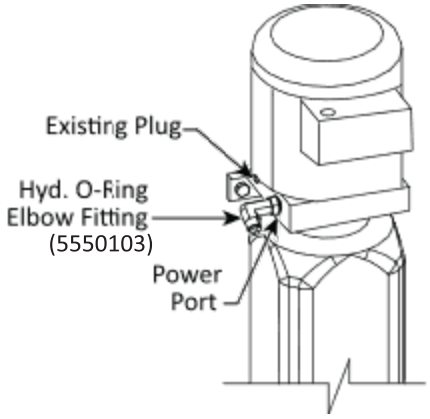
The following figure details the possible configurations for the Power Unit. Depending on the supplied Power Unit, the Port locations may differ than shown here.



⚠ **CAUTION** The Hydraulic Pressure Ports are typically labeled **P1**/**P2**; the Hydraulic Return Ports are often labeled **T1**/**T2**. ***Do Not attach a Hydraulic Hose to the Return Line Port***.

On the Power Unit, Remove one of the two Shipping Plugs (other plug remains) from the Hydraulic Pressure Ports on the Power Unit (labelled **P1** or **P2**), then install and securely tighten to the optimal connecting angle the Hydraulic O-Ring Elbow Fitting (5550103) into the open Hydraulic Power Port.

Note: Add a few drops of hydraulic fluid on the O-ring of the Hydraulic Elbow Fitting (PN 5550103) then attach to the Hydraulic Pressure Output Port (P1) on the Power Unit.

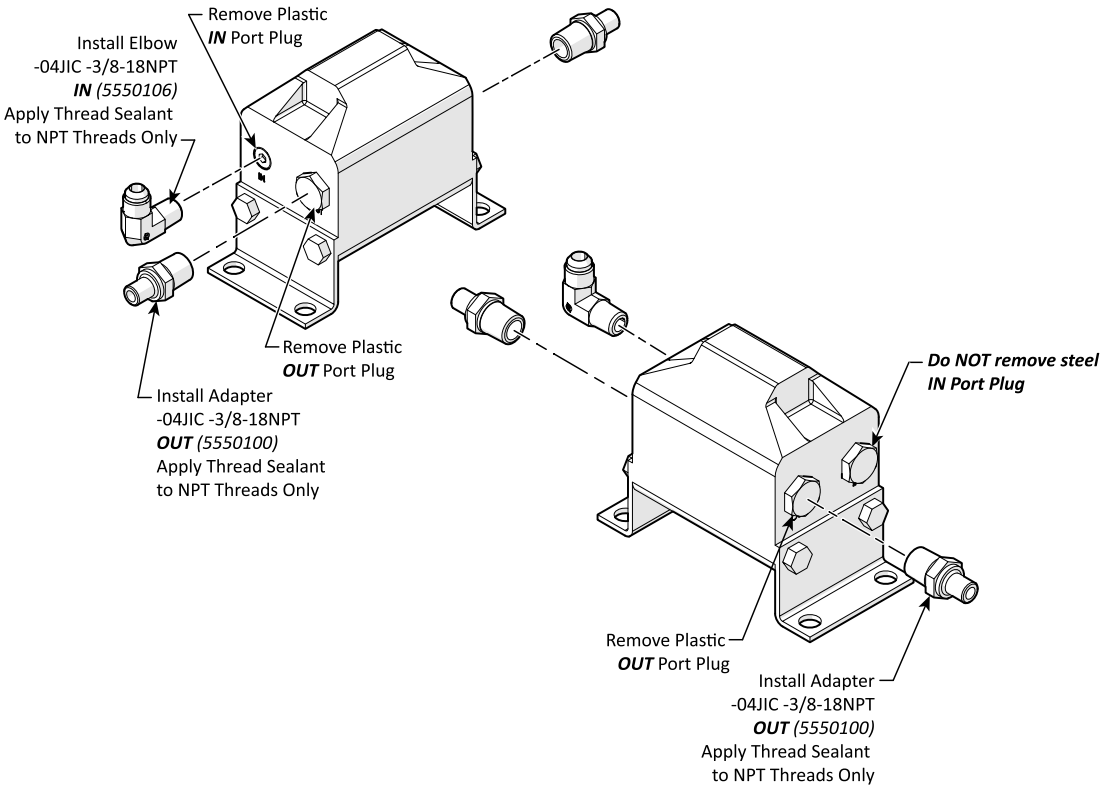


Install Fittings to the Flow Divider

NOTICE The Ports for the two **Out** Fittings and the **In** Fitting may have colored plugs that require removal before installing the Fittings.

Remove the Shipping Plugs from the Hydraulic Port **at the bottom of both Hydraulic Cylinders**, then visually inspect and clean the Port threads.

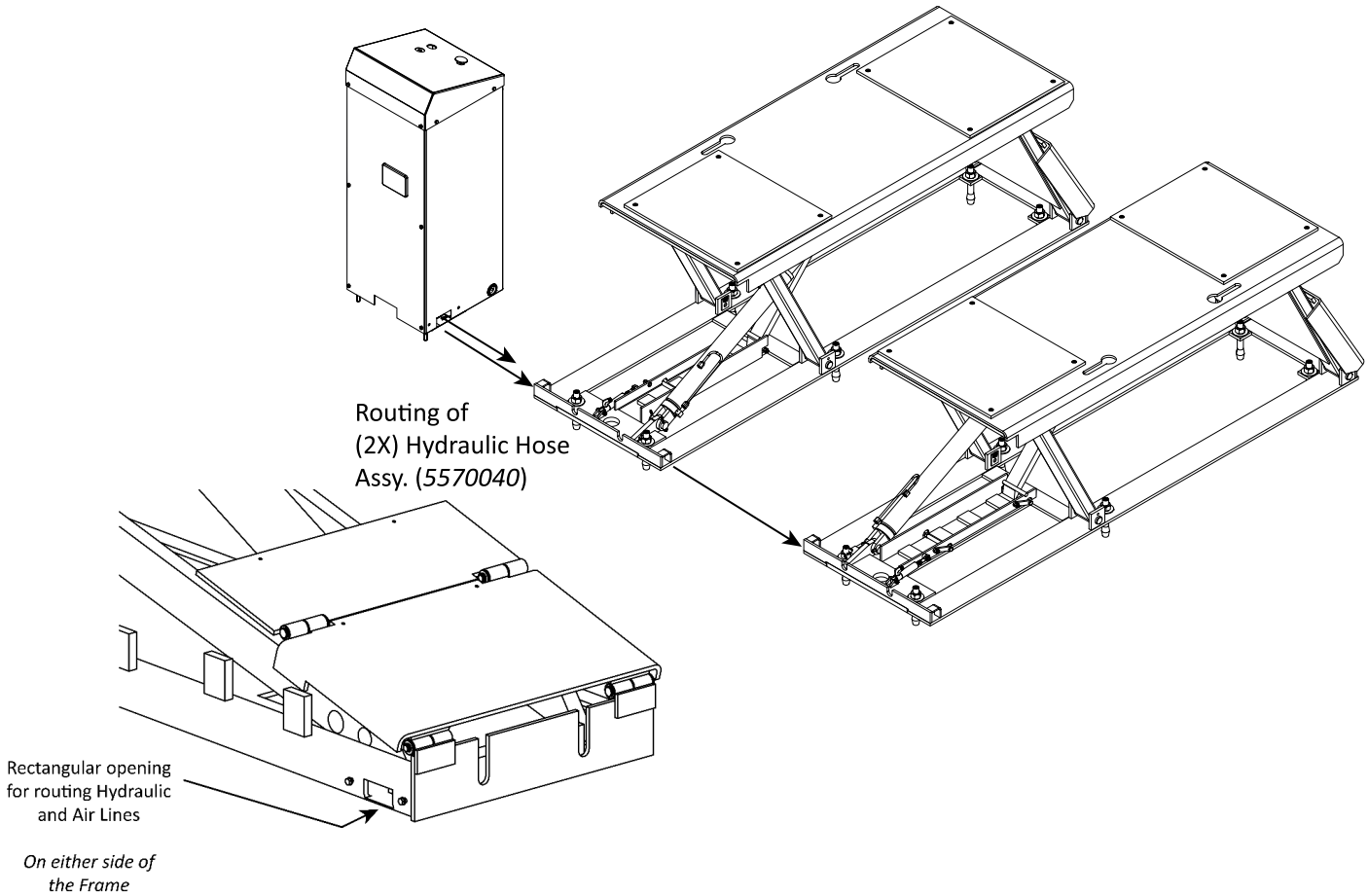
Install and securely tighten, the Hydraulic **Elbow** NPT Fitting (5550106) to the **IN Port** on the Flow Divider to the optimal angle. Next securely tighten the two Hydraulic Straight NPT Fittings (5550100) to each of the Hydraulic **OUT Ports** on the Flow Divider. ***Use LIQUID Thread Sealant on ALL NPT Threads (DO NOT USE TEFLON TAPE on Hydraulic connections).***



Attach Hydraulic Hoses to the Hydraulic Cylinders

Note: As needed, BendPak recommends using **SAE 30 Conventional Detergent motor oil** with this **Power Unit** and **Flow Divider**. Do Not use ATF, nor similar.

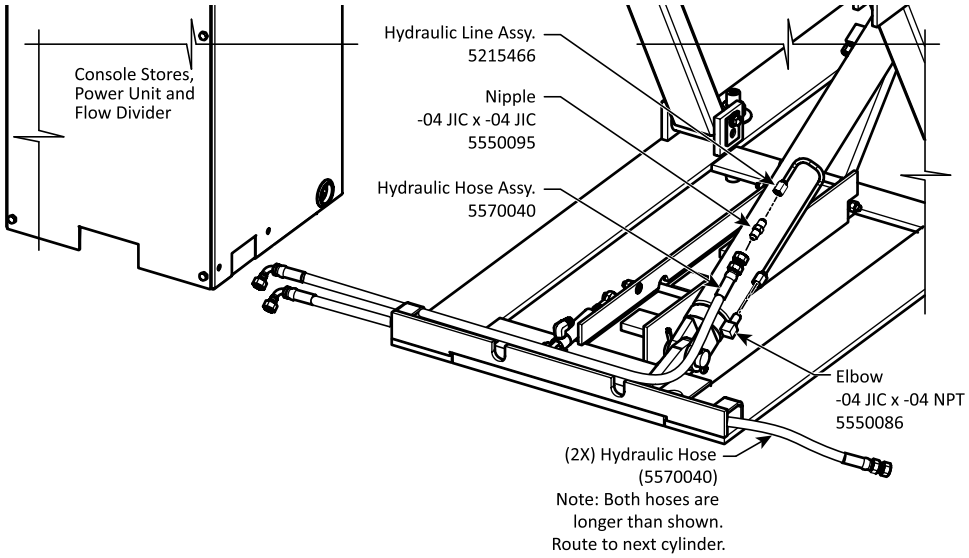
1. With the Platforms remaining raised on their top Safety Locks, place each of the two hoses (5570040) so that they are within attaching distance to the Flow Divider (inside console). Route the opposite ends so that they exit the console and travel to the two Hydraulic Lift Cylinders positions. Note that both hoses should travel through the respective Lift Frames (via Rectangular Openings) and continue ready to attach to each Lift Cylinder fitting. The closer hose (to the Flow Divider) will yield excess length, which will be coiled and stored in the Console later during the installation. **Connecting the hose ends will be performed soon**.



2. These four hydraulic components will be attached subsequently to each Lift Cylinder.

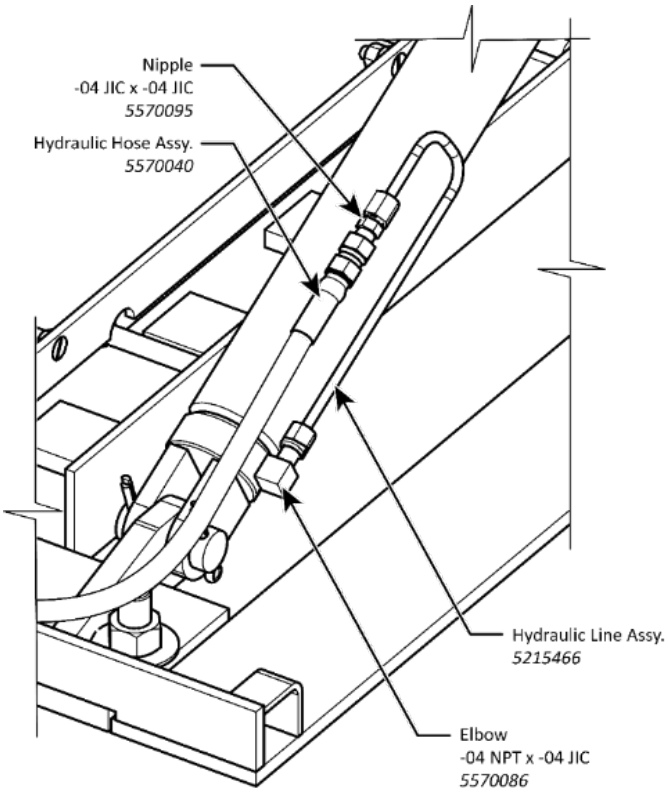
   1. Hydraulic Hose (5570040), 2. JIC Nipple fitting. (5550095),
   3. Formed Metal Line (5215466), 4. Elbow Fitting (5550086).

3. To continue, remove and discard the Shipping Plugs from the Hydraulic Ports; found near the bottom of each Hydraulic Lift Cylinder. Then install and tighten one Hydraulic Elbow Fitting (5570086) to each of the two Hydraulic Ports. Note, the **open side** of each Elbow fitting should point upwards, while parallel to the cylinder. ***Use liquid or paste Teflon Thread Sealant on the NPT Threads only (not Teflon tape).***



3. To each cylinder, attach and tighten the longer Straight End of the Hydraulic Line Assembly (5215466) to the Hydraulic Elbow Fitting (5550086) just installed. Then attach and tighten the Nipple fitting (5570095) to the opposite shorter end of the same Hydraulic Line Assembly.

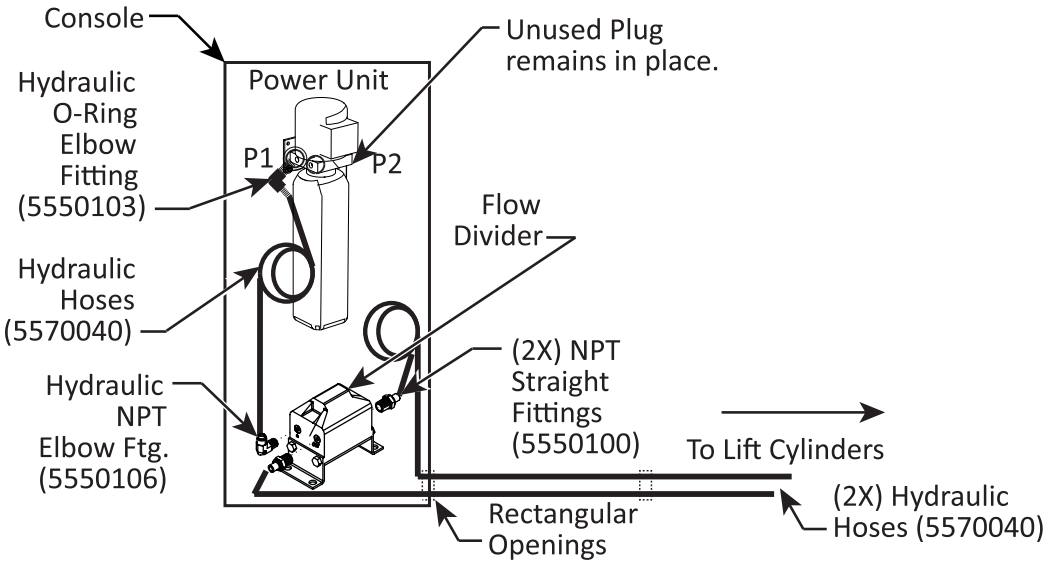
4. Next, attach and tighten the ***Straight End*** of each previously positioned Hydraulic Hose (5570040) to the Nipple Fitting (5550095) just installed along the Hydraulic Cylinder. As noted, the closer Lift Frame Hydraulic Cylinder will yield excess hose length. When needed, coil the extra length to store inside the Console securing the loop with a Zip Tie.



⚠ CAUTION When installing the Hydraulic Hose Assemblies, make sure they are angled next to the Hydraulic Cylinders, not away from the cylinders, and no hose kinks exist.

5. Repeat applicable steps for the second Lift Cylinder's Hydraulic Hose and Line installation.
6. Verify both Hydraulic Hoses are correctly routed, then use appropriate tools to ***securely*** tighten the connections at the cylinders a final time.

Hose Installation for the Flow Divider to Power Unit



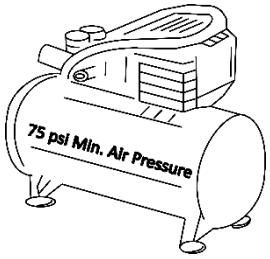
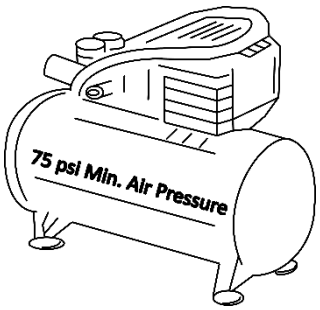
1. To connect the two Lift Cylinders to the Flow Divider, connect the two Long Hydraulic Hose (5570040) **Elbow Ends**, to the two **Out** Fittings (5550100) on the Flow Divider.
2. To connect the Flow Divider to the Power Unit, attach the Short Hydraulic Hose (5570040) to the Hydraulic Elbow Fitting (5550106) previously attached to the Flow Divider.
3. To the Power Unit, attach the opposite free end of the Short Hydraulic Hose to the **In Elbow** Fitting (5550103). Coil and Zip Tie excess hose length.
4. Check that **ALL Hydraulic Hoses** are correctly routed, and no kinks are present. Store any excess hose lengths in a coiled fashion, held with zip ties, and away from Lift operation inside the Console.
5. **Systematically** tighten **ALL Hydraulic** connections and verify that no leaks exist.

Installing the Air Lines

Air pressure is used to disengage the Safety Locks in each Post so that you can lower the Runways. You will need more of the 1/4″ black, polyethylene Tubing that came with the Lift and three Air Line Tee Connectors to install the Air Lines.

An Air Supply (30 to 125 psi MAX. at 3 cfm) is required to disengage the Safety Locks.

3 Levels of Suggested Air Compressors for SP-7XE/F Operation

Model Level	Service Size	Air Tank Volume	CFM	Min. Oper. PSI	Max. Oper. PSI
Good		3 Gallon Min.	3 to 25	30	125
Better		10 Gallon Min.	3 to 25	30	125
Best		20 Gallon Min.	3 to 25	30	125

⚠ **CAUTION** ***Do not allow the Air Supply to exceed 125 psi!*** Otherwise, the Air Lines could burst or the Safety Locks malfunction.

The Air Line Elbow Connectors on the Air Cylinders are installed from the factory.

Important: Do not confuse the Air Lines with the Return Line. They use the same Tubing and similar-looking connectors, but they are used for different operations; the two systems cannot be connected to each other.

Working with Compression Fittings and Tubing

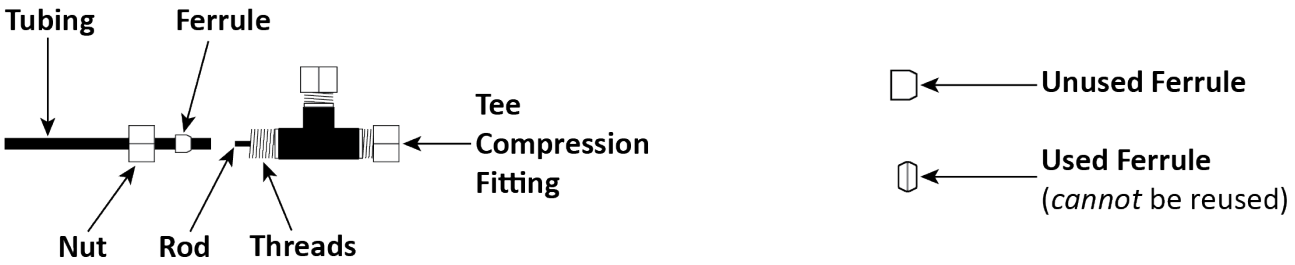
Your Lift arrives with a roll of ¼″ black, polyethylene Tubing (also called Poly-Flo® Tubing) that is used with Compression Fittings for the Air Line and the Return Line.

Note: Compression Fittings are different from Hydraulic Fittings. ***This section covers Compression Fittings only***.

The components involved with Compression Fittings include:

- **¼″ Black, polyethylene Tubing**. The Air and Return Lines require multiple Tubing pieces to make the necessary connections. Create the Tubing pieces by cutting lengths from the long roll of Tubing supplied with your Lift.
- **Straight Compression Fittings**. The Return Line uses two Straight Compression Fittings, one at the top of each Hydraulic Cylinder.
- **Elbow Compression Fittings**. The Air Line uses two Elbow Compression Fittings, one on each Air Cylinder.
- **Tee Compression Fittings**. The Air Line requires one Tee Compression Fitting.
- **Nuts, Ferrules, Rods, and Threads**. Each connector on Straight, Elbow, and Tee Compression Fittings have a Nut, Ferrule, Rod, and Threads (see drawing below). The Nut holds the Tubing and Fitting together. The Ferrule compresses when you tighten the Nut on the Threads to make a secure connection. The Rod goes inside the Tubing so that nothing leaks out.

The following drawing shows the components of a connector on a Tee Compression Fitting.



Important: ***Ferrules should only be tightened once***. When you tighten the Nut on the Threads, the Ferrule becomes compressed; it should not be used again.

To connect Tubing to a Compression Fitting:

1. Push the Tubing through the Nut and over the Rod.

   Do not push hard; you only need the Tubing to go a little way over the Rod. You cannot see the Ferrule at this point, but the Tubing must go through the Ferrule and over the Rod.

2. Slide the Nut on the Tubing ***away from the Fitting***; if the Nut is still on the Threads, unscrew it from the Threads and then slide it away from the Fitting. See the drawing above.
3. Slide the Ferrule over the Tubing, away from the Fitting and towards the Nut.
4. With the Nut and the Ferrule out of the way, push the Tubing farther over the Rod until it stops.
5. Slide the Ferrule and the Nut back to the Threads on the Fitting.

   The Ferrule fits around the Rod and under the Threads. The Nut fits onto the Threads.

6. Tighten the Nut. Remember that the Ferrule should only be used once; do not tighten the Nut until everything is ready.

Connect the Return Line

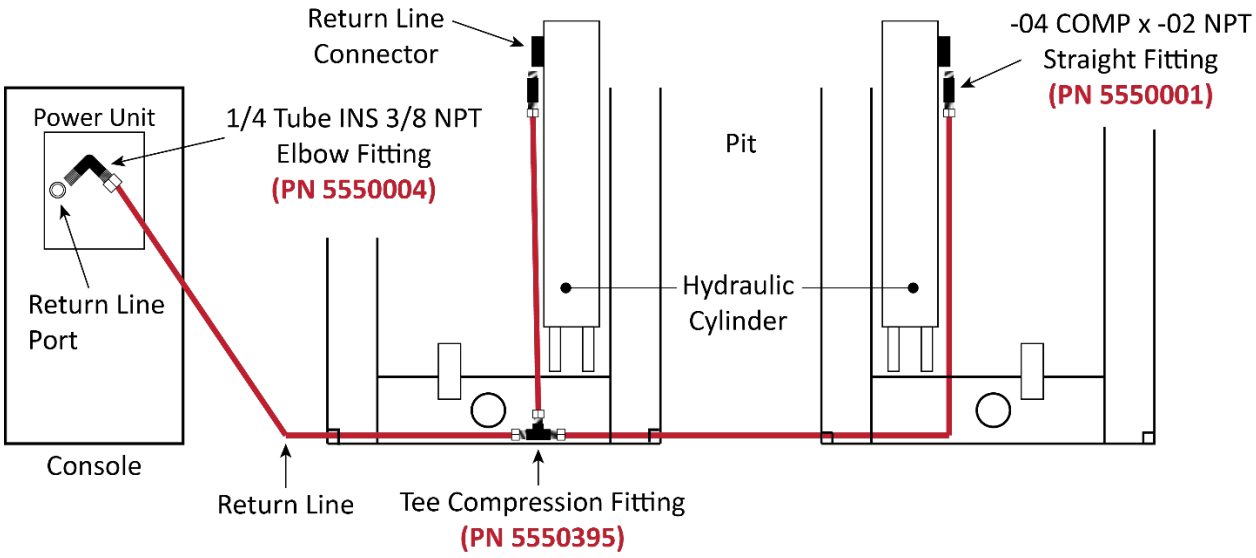
The Return Line takes extra Hydraulic Fluid from the Hydraulic Cylinders and returns it to the Power Unit's Hydraulic Fluid Reservoir; it also allows air to move in and out of the Hydraulic Cylinders.

One end of the Return Line connects to the Power Unit. There are two other ends; they attach to Return Line connectors, which are near the top of each Hydraulic Cylinder.

Create the Return Line using the ¼″ black plastic Tubing that came with the Lift; you need to cut it into sections of the appropriate length.

Important: The Air Line and the Return Line use the same ¼″ black, polyethylene Tubing. Be sure not to confuse the two; the Air Line and the Return Line do completely different things and ***must*** be kept separate from each other.

The following drawing shows how the Return Line can be arranged.



Tip You can use zip ties (also called cable ties, not supplied) to hold the Return Line in place once the Return Line sections are connected.

To connect the Return Line:

1. Attach an Elbow Compression Fitting (PN 5550004) to *one of the two* Return Line Ports on the Power Unit; ***use Liquid Thread Sealant on NPT threads only***.

   There are two Return Line Ports on the Power Unit; they work the same, so choose the one that is best for you. ***You only need to use one, not both***.

   See **Connect the Hydraulic Hoses** for the possible Port locations on your Power Unit.

2. Attach a Straight Fitting (PN 5550001) to both Return Line Connectors near the top of each Hydraulic Cylinder.
3. Locate a Tee Compression Fitting (PN 5550395) and put it near the bottom of the Hydraulic Cylinder closest to the Console.
4. Locate the Return Line Tubing, then cut tubing sections of the appropriate length for each of the three Return Line segments.
5. Connect the three Tubing sections between the Fittings.

Connect the Air Line

The Air Line uses air pressure to disengage the Safety Locks so you can lower the Platforms.

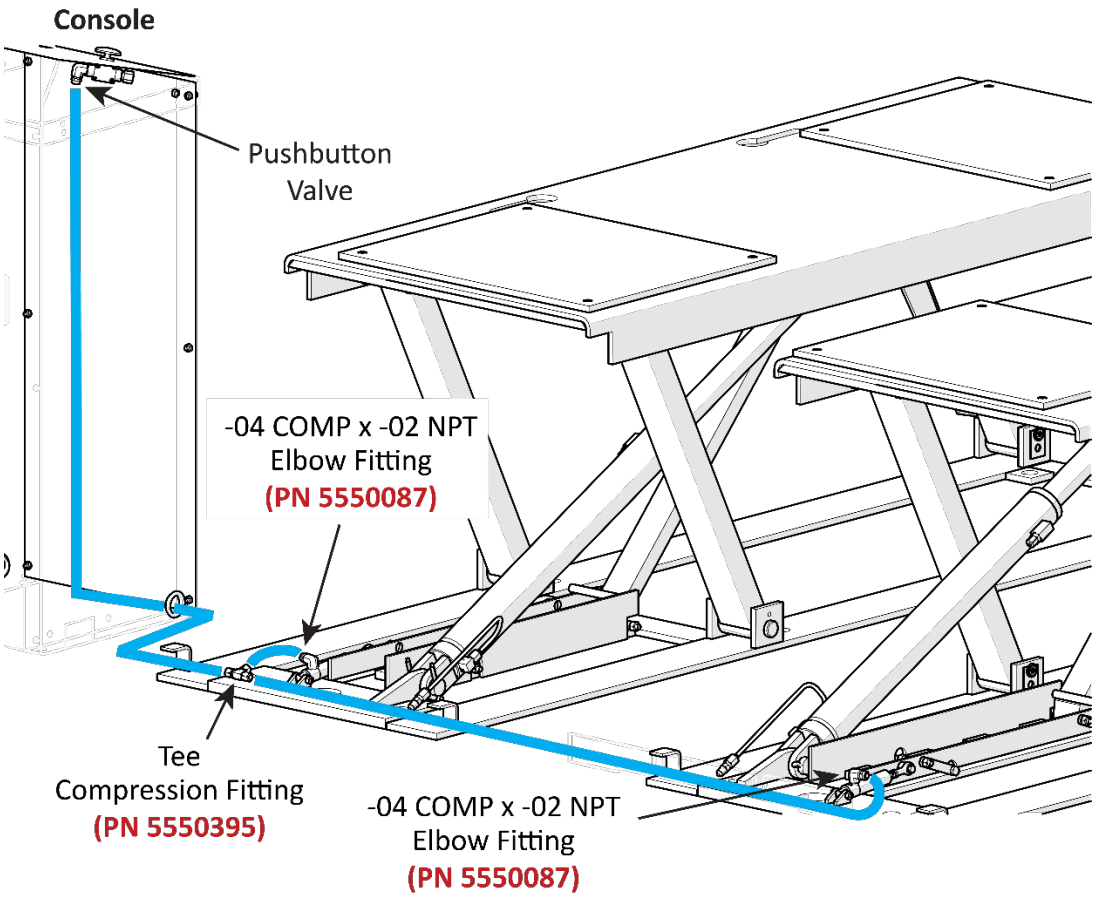
Important: It is the responsibility of the Lift owner/operator to provide an air supply (minimum 30 psi at 3 CFM, regulated to a maximum of 125 psi).

⚠ **CAUTION** The Lift uses pneumatic energy. If your organization has Lockout/Tagout policies, make sure to implement them after connecting the Air Line to the air supply.

The air supply is distributed to the Air Cylinders using ¼″ black plastic Tubing, which is supplied with the Lift. You need to cut the Tubing into appropriate lengths based on the distance between the components you are connecting.

Important: The Air Line and the Return Line use the same ¼″ black, polyethylene Tubing. Be sure not to confuse the two; the Air Line and the Return Line do completely different things and ***must*** be kept separate from each other.

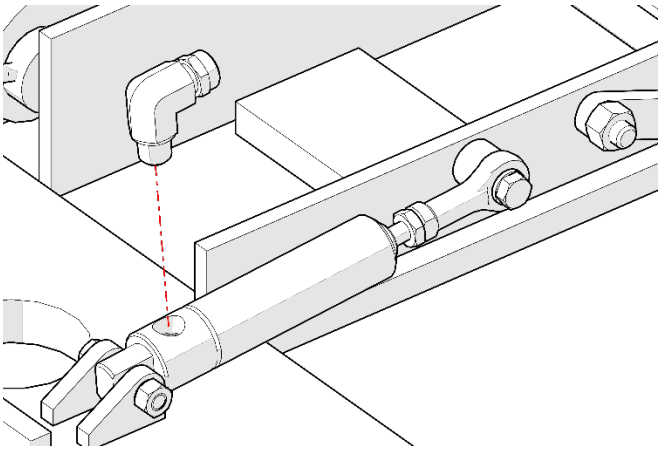
The following drawing shows how to route the Air Line from the Console to the Air Cylinders.



Drawing not to scale. Some components not shown, other components exaggerated for clarity. Console only partially shown.

To connect the Air Line:

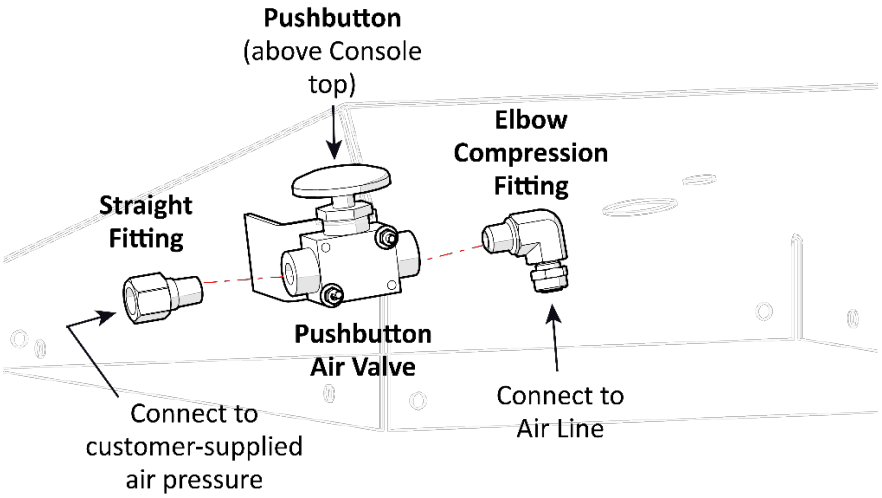
1. Locate two Elbow Compression Fittings and connect them on the top of the Air Cylinders.



2. Locate the black plastic Tubing and one Tee Compression Fitting and cut the tubing into appropriate lengths for your installation.

Tip BendPak recommends planning out the path of the Air Line ***before*** you start cutting the Tubing.

3. Connect the Tubing lengths and the Tee Compression Fitting to the Compression Fittings on the Air Cylinders.
4. On the underside of the Console Cover, attach the male end of a Compression Elbow Fitting to the CYL connector on the Pushbutton Air Valve, then connect the final Tubing length to the compression end of the Elbow Compression Fitting.
5. Also, on the underside of the Console Cover, attach the male end of an Air Line Pipe Fitting to the IN connector on the underside of the Pushbutton Air Valve, then connect the customer-supplied air supply to the other end of the Air Line Pipe Fitting.



Pushbutton is above the Console Cover; all other components are under the Console Cover. Drawing not necessarily to scale. Not all components shown.

Connect the Buttons

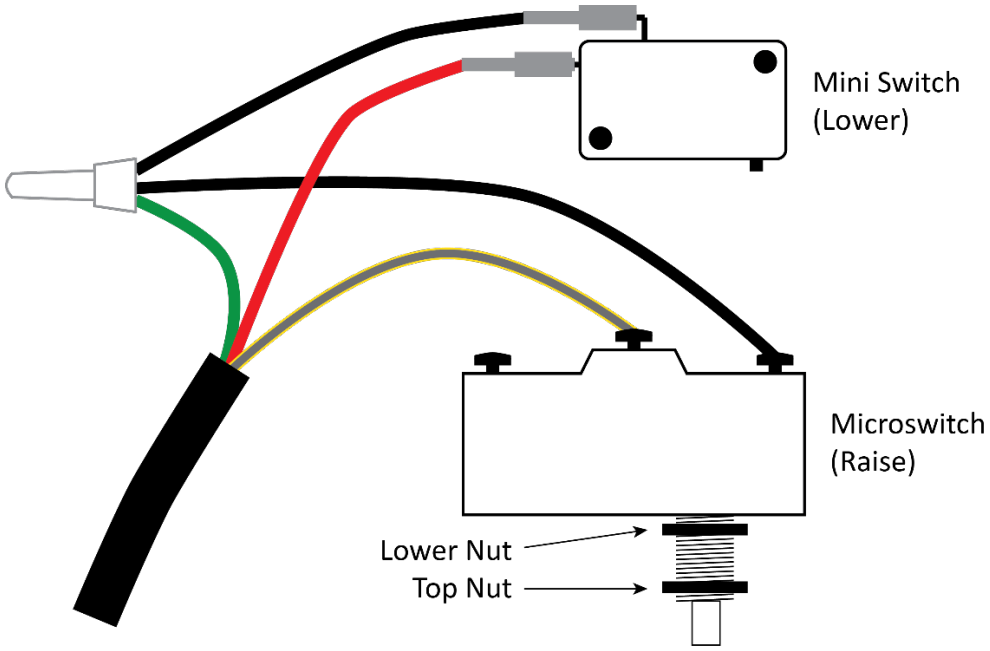
The three Controls for the Lift are located on the Console cover. They do ***not*** come installed; you must install them.

The three Controls are:

- **Raise button**. Not yet connected, described in this section. Used to raise the Platforms.
- **Lower button**. Not yet connected, described in this section. Used to lower the Platforms.
- **Safety Lock Release button**. Already connected, covered in **Connect the Air Line**. Uses air pressure to push the Platforms off of their Safety Locks so that they can be lowered.

Because the Console and the Power Unit are shipped separately, connect the Raise and Lower buttons to the underside of the Console cover ***after*** the Console is assembled and the Power Unit is put in place.

The wiring for the Mini Switch (Lower button) and Microswitch (Raise button) arrive connected to the Power Unit from the factory, as shown below.



Not necessarily to scale.

If any of the wires are disconnected or missing, refer to **Troubleshooting**.

Do ***not*** perform the following procedure until the Console is assembled and the Power Unit is installed inside it, covered in **Set Up the Console and Attach the Power Unit**.

To connect the Controls:

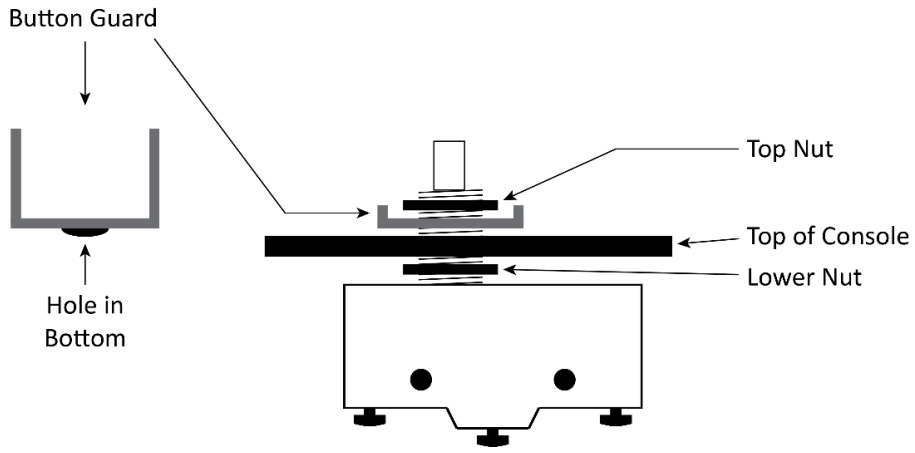
1. Remove the front of the Console if it is currently in place.
2. On the Console Cover, note the locations of the Raise and Lower controls, then turn the Console Cover upside down. Use care, the Air Line and the incoming air supply are connected.
3. Locate the Microswitch (connected to the wiring on the Power Unit) and the Button Guard.
4. Take the Top Nut off of the threads on the Microswitch.

5. Put the Microswitch and Lower Nut into place through the Console Cover.

   The Microswitch is the Raise Button.

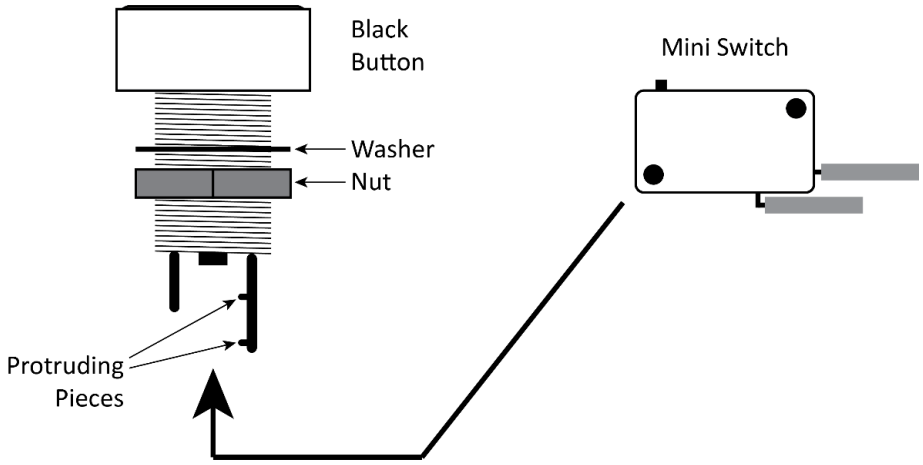
6. Holding the Microswitch and the Lower Nut in place, turn the Console Cover right side up.
7. Put the Button Guard into position around the button portion of the Microswitch (through the hole in the bottom of the Button Guard).
8. Put the Top Nut back into position on the threads on the Microswitch, then tighten it.

   The following drawing shows how the Button Guard and the Microswitch go together.



9. With the Console Cover still right side up, locate the Black Button, then remove the black plastic Nut and Washer from the Black Button.
10. Put the Black Button into the hole for the Lower button in the Console Cover.
11. Holding the Black Button in place, turn the Console Cover upside down again, put the black plastic Nut and Washer back into place on the threads of the Black Button, then tighten them.
12. Take the Mini Switch and carefully push it into place at the bottom of the Black Button.

    Make sure the protruding pieces on the bottom of the Black Button go into the holes in the Mini Switch; the Mini Switch will ***not*** work correctly until the protruding pieces are in the holes. You *may* need to bend back the section holding the protruding pieces to seat the Mini Switch.



13. Turn the Console Cover right side up, then secure it in place.

Connect to Power

This section describes how to connect your 208-240 VAC Power Unit to a power source.

With optional 110 VAC Power Unit, plug cord (1,500mm length) into an appropriate 110 VAC outlet.

Do not connect the Power Unit to a power source unless the Raise and Lower buttons are already connected to the Power Unit.

⚠ DANGER If you connect the Power Unit to its power source *before* connecting the Raise and Lower Buttons, there is a small chance you could be electrocuted! To avoid even this small chance, make sure to connect the Raise and Lower Buttons to the Console ***before*** connecting the Power Unit to its power source. **Failure to follow this instruction could result in serious injury or death.**

BendPak recommends a 25 amp breaker for the standard Power Unit; check with your Electrician to confirm this is appropriate for *your* installation and is consistent with all applicable electrical codes.

⚠ DANGER All wiring ***must*** be performed by a licensed Electrician.

Most customers have their Electrician:

- Wire the Lift directly into the facility's electrical system, ***or***
- Add a power cord with appropriate plug, which is then plugged in to an appropriate power source.

The Electrician will need to provide the necessary components; they are ***not*** supplied with the Lift.

All Power Units come with a 'pigtail' coming out of the Electrical Box. When connecting to the power source, ***remove the pigtail*** from inside the Electrical Box, then connect directly from inside the Electrical Box to the electrical system at your location or to an appropriate power cord with plug.

Refer to **Wiring Diagrams** for Power Unit wiring information.

Important electrical information:

- Improper electrical installation can damage the Power Unit motor; this damage is ***not*** covered under warranty.
- ***All*** electrical work ***must*** conform to applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.
- All wiring must be done in accordance with National Electric Code and local codes and standards covering electrical apparatus and wiring.
- The Lift uses electrical energy. If your organization has Lockout/Tagout policies, make sure to implement them after connecting the Power Unit to a power source.
- Use a separate circuit breaker for each Power Unit.
- Protect each circuit with a time-delay fuse or circuit breaker

⚠ DANGER Risk of explosion: The Power Unit has internal arcing or parts that may spark and should not be exposed to flammable fuel or vapors. The Power Unit's motor should not be located in a recessed area or below floor level. Never expose the motor to rain or dampness; damage to the motor caused by water is ***not*** covered by the warranty.

To connect to a 208-240 VAC power source:

1. Remove the front of the Console if it is currently in place to access the Power Unit.
2. Locate the Pigtail coming out of the Electrical Box on the Power Unit.
3. Open the Electrical Box, note where each wire is connected, remove the Pigtail, and then either:
   - Wire the Power Unit directly into the facility's electrical system, ***or***
   - Wire a power cord with appropriate plug starting inside the Electrical box where the Pigtail was wired.

   You can find the Wiring Diagram for your Power Unit in **Wiring Diagrams**.
4. Close the Electrical Box.
5. If you wired a power cord with plug, plug it in to an appropriate power outlet.

Install a Power Disconnect Switch

⚠ **WARNING** A Power Disconnect Switch is ***not*** provided with this equipment.

A Power Disconnect Switch is a National Electrical Code (NEC) requirement. They are designed to interrupt main electrical power in the event of an electrical circuit fault, emergency situation, or when equipment is undergoing service or maintenance.

Make sure to install a Power Disconnect Switch that is properly rated for the incoming power source.

Your Power Disconnect Switch must be installed so that it is in ***easy reach of the Operator*** or in their line of sight. The Power Disconnect Switch must be ***clearly marked*** to indicate its purpose.

If you are not clear where to put the Power Disconnect Switch, consult with your Electrician.

Have the Electrician select a ***UL-listed*** Power Disconnect Switch.

Install a Thermal Disconnect Switch

⚠ **WARNING** The motor on the Power Unit has ***no thermal overload protection***.

If required by local Electrical Codes, have the Electrician connect a motor Thermal Disconnect Switch or overload device that will make sure the equipment shuts down in the event of an overload or an overheated motor.

⚠ **WARNING** Installing a Thermal Disconnect Switch ***must*** be performed by a licensed Electrician. Do not perform ***any*** maintenance or installation on the Lift without first making sure that main electrical power has been disconnected from the Lift and ***cannot*** be re-energized until all procedures are complete.

High running amps that exceed the motor's full load amps (FLA) rating may result in permanent damage to the motor. ***Do not exceed the rated duty cycle of the motor.***

Fill the Hydraulic Fluid (Oil) Reservoir

The Hydraulic Fluid Reservoir on the Power Unit must be filled with the recommended oil before you ***begin*** normal operation of the Lift. When you receive the Lift, the Hydraulic Fluid Reservoir is empty. The Power Unit will NOT operate, and damage may occur, unless it is filled with approved Oil first.

READ THIS:
BEFORE ADDING HYDRAULIC OIL

This car lift is equipped with a Flow Divider, an essential component of the hydraulic system that ensures smooth and synchronized movement of the lifting mechanisms. Proper oil is crucial for the optimal performance and longevity of your lift system.

⚠ **WARNING** Some Lubricants may contain toxic components and must be disposed of in accordance with all national, state, and local regulations. Wear appropriate personal protective equipment for working with Lubricating products including gloes, and safety glasses.

WE RECOMMEND ONLY USING SAE 30 CONVENTIONAL DETERGENT MOTOR OIL because of its higher viscosity (when compared to ATF), which helps prevent cross-migration of fluid across the internal flow divider components. The use of other lower viscosity fluids such as AW32, AW46, or ATF (Automatic Transmission Fluid) is **not recommended** and may adversely affect the performance and safety of the lift system.

All reputable petroleum brands that manufacture SAE 30 conventional detergent motor oil are approved for use.

Always ensure that only clean, uncontaminated oil is used. Contaminants such as dirt, water, or other foreign particles can compromise the integrity of the hydraulic system.

The Hydraulic Oil Reservoir holds 3.5 – 3.7 gallons (13.25 – 14 liters) of oil, depending on the Power Unit.

⚠ **WARNING** Do ***not*** run your Power Unit without Hydraulic Oil; you will damage it.

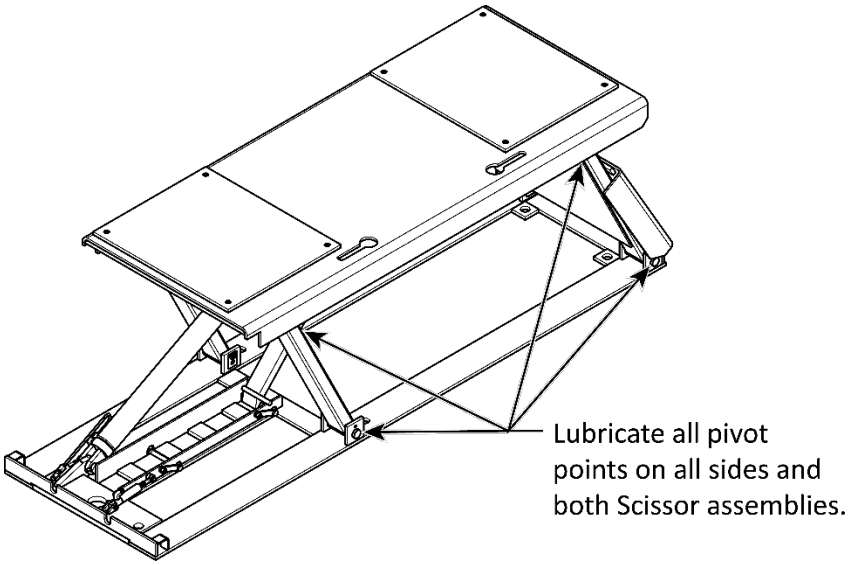
To fill the Hydraulic Oil Reservoir:

1. Remove the Reservoir Cap from the top of the Hydraulic Oil Reservoir and set it aside. Take care to ***keep contaminants out*** of the Hydraulic Oil Reservoir.

2. If the Hydraulic Oil Reservoir is not full, use a clean funnel with a 60-micron filter to fill it with approved oil.
3. If the Hydraulic Fluid Reservoir is ***not*** full, fill it with approved fluid.

Lubrication

Lubricate all pivot points with a white lithium grease or equivalent.



⚠ **WARNING** White and Red Lithium Grease and ALMASOL Wire Rope Lubricant are required for lubrication. BendPak does not supply these lubricants with this Lift. Always refer to the Material Safety Data Sheet (MSDS) for safe handling and disposal information. MSDS are available from the Hydraulic Fluid supplier or manufacturer.

Final Checklist Before Operation

Make sure these things have been done ***before*** using your Lift:

- Review the **Installation Checklist** to make sure all steps have been performed.
- Verify the Power Unit is getting power from the power source.
- Check the Hydraulic Fluid Reservoir; it must be full of approved Hydraulic Fluid or automatic transmission fluid. ***You can harm the motor by running it without enough fluid.***
- Check the Hydraulic System for leaks. Check for any loose Hydraulic Fittings and Auxiliary Port Plugs. Inspect for pinched or damaged Hydraulic Hoses and replace them ***before*** operation.
- Check to see that all Anchor Bolts are appropriately shimmed and correctly torqued.
- Make sure nothing is interfering with the Safety Locks; they must ***not*** be blocked in any way.
- Leave the *Installation and Operation Manual* with the owner/operator. It needs to be available to anyone who operates, maintains, or troubleshoots the Lift.

Test the Lift

Before putting your Lift into normal operation, we recommend raising and lowering it two or three times. This will test the Lift's functionality, help you get a feel for how to operate the controls, and help get any residual air out of the Hydraulic System.

Tip Residual air in the Hydraulic System can cause the Lift to shake, move erratically, or squeak; this is normal when you first start using the Lift. It will soon stop doing this, as the Hydraulic System is self-bleeding.

The Ramps do not need to be installed to test the Lift, nor do you need a Vehicle on it.

To test your Lift:

1. Check the area around and above the Lift for obstructions; move them away if you find any.
2. Drive the vehicle onto the lift so that the vehicle's lift points center properly, and correspond above the platforms.
3. Place the Lift Blocks under the manufacturer's recommended Lifting Points of the Vehicle. See **About Lifting Points, Adapters, and Auxiliary Adapters** in the Operation Section.
4. Press and hold **Raise**; the Platforms begin to rise.
5. When the Platforms move past the first Safety Lock, release **Raise**; the Platforms stop rising.
6. Press and hold **Safety Lock Release** and **Lower** buttons; the Platforms start lowering.

   Note: Without the weight of a Vehicle, the Lift may raise or lower slower than it will when it does have the weight of a Vehicle on it.
7. When the Platforms get to the ground, they will stop; release **Safety Lock Release** and **Lower**.
8. Wait for one minute.

⚠ **WARNING** The Power Unit is not a constant duty motor; ***it cannot be run continuously***.

9. Repeat the process, this time raising the Lift to the top Safety Lock and then lowering it back down to the ground.
10. If the Lift is working without shaking, moving erratically, or squeaking, there is no need to repeat the procedure.

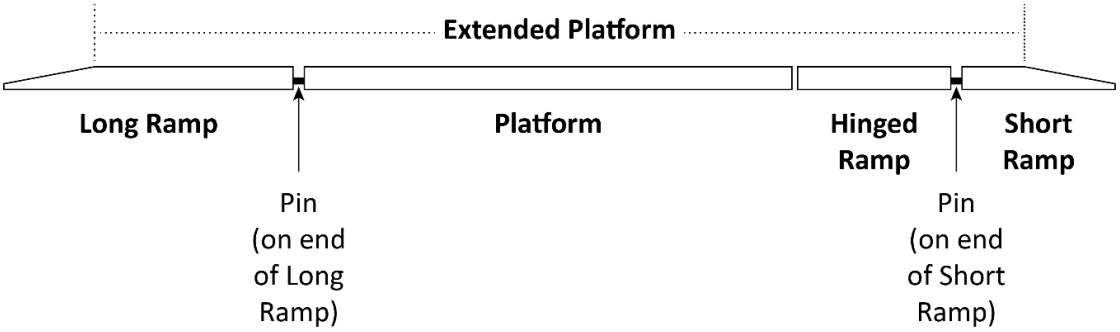
    If the Lift is shaking, moving erratically, or squeaking, repeat the procedure one more time, this time with a Vehicle on the Lift. If you continue to have issues, refer to **Troubleshooting** for assistance.

Add the Ramps

The Lift arrives with four Ramps: two Long Ramps and two Short Ramps. The P-9000LT**F** does not come with any Ramps, as it is a flush mount.

The standard configuration is for the Short Ramps to be installed next to the Hinged Ramps and the Long Ramps to be installed on the other end of the Base.

This configuration creates a flat, *extended* Platform onto which you drive the Vehicle to be raised. The extended Platform keeps the Vehicle flat and well above the Platforms, making it easy to position the Lift Blocks under the manufacturer-recommended Lifting Points.



Do not scale. Components removed for clarity. Side view.

All four Ramps come with pins that fit into holes in the Base. To put a Ramp into position, put the pins into the holes in the Base and make sure they are correctly seated.

Operation

This section describes how to operate your Lift.

⚠ **DANGER** Only allow trained, authorized, supervised personnel near the Lift. ***Do not assume you are going to be safe this time because nothing happened last time***.

Safety First

BendPak strongly recommends referring to the ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service* for more information about safely using your Lift.

Before you raise or lower a Vehicle using your Lift, do the following:

- **Check the Lift**. Check the Lift for any missing, heavily worn, or damaged parts. Do not operate the Lift if you find any issues. Instead, take it out of service, then contact your dealer, email **support@bendpak.com**, visit **bendpak.com/support**, or call **(800) 253-2363**, then follow prompts.
- **Check the area**. Check the area around the Lift for obstructions; anything that might block the Lift. Do not forget to check ***above*** the Lift. If you find an obstruction, move it out of the way. Do not allow anyone within 30 feet of the Lift while it is being used.
- **Check the operators**. Make sure everyone who is going to operate the Lift has been trained in its use, has read the labels on the unit, has read the manual, and is properly supervised. Only the Operator at the Console should be within 30 feet of the Lift when it is being used.
- **Check for safety**. Make sure everyone who is going to be walking near the Lift is aware of its presence and takes appropriate safety measures. Only put Vehicles on the Lift. ***When raising the Lift, do not leave it until it is engaged on Safety Locks***. When lowering the Lift, do not leave it until it is fully lowered. Do not allow children to operate the Lift. Do not allow anyone under the influence of drugs or alcohol to operate the Lift.
- **Check the Vehicle**. Never exceed the Lift's rated capacity. Do not allow people inside a Vehicle you are raising. Make sure Vehicles are not overbalanced on either end. Make sure you know and use the manufacturer-recommended Lifting Points for the Vehicle. Never raise just one side, one corner, or one end of a Vehicle. Make sure the weight of the Vehicle is evenly distributed, both between front and back and side to side.
- ***Anything*** that could impact the safe use of the Lift ***must*** be fully resolved before you use the Lift. Only use the Lift if it can be used ***safely***.

⚠ **DANGER** **Crushing hazard and pinch points**. Do not place any part of your body between the top deck and any moving part of the Lift unless visual confirmation is made that the safety lock is fully engaged, and that the Lift's downward motion is blocked by a Jack Stand, Forklift or other Load-Holding device that will prevent the Lift's downward movement while working under it.

The Console

Operation of the Lift is controlled via the Controls on the Console.

The Controls on the Console are:

- **Safety Lock Release** button. Uses air pressure to push up the Safety Release Bar, which allows the Platforms to lower.
- **Raise** button. Moves the Platforms up.
- **Lower** button. Moves the Platforms down, either all of the way down to the ground or onto a Safety Lock.

About Safety Locks

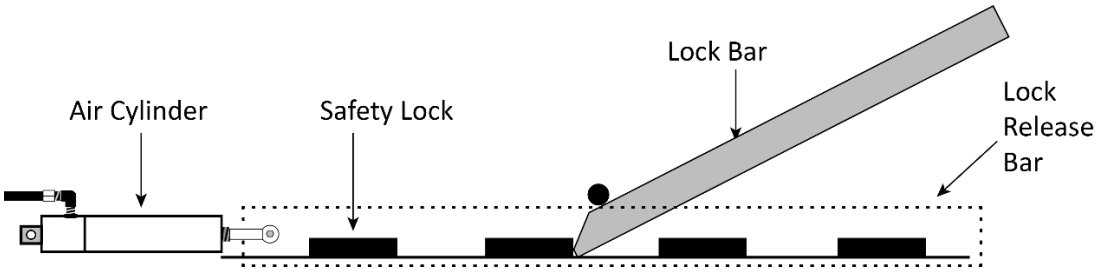
Your Lift arrives with multiple Safety Lock positions; they serve two important functions:

- **Safety**. Safety Locks hold the P-9000LT/F Platforms in place. Once the P-9000LT platforms are engaged on Safety Locks, the weight of the Vehicle holds the Platforms in place. If the power goes out or the Hydraulic Hoses are cut or start to leak, the Safety Lock holds the P-9000LT Platforms, and anything on them, in place.

⚠ **WARNING** Always leave your P-9000LT/F Platforms engaged on the Safety Locks or lowered to the ground. Although rare, it is possible for Hydraulic Fluid in the Hydraulic Cylinders to leak, causing the Platforms to slowly come down. ***Always leave it your Lift either fully lowered or engaged on Safety Locks.***

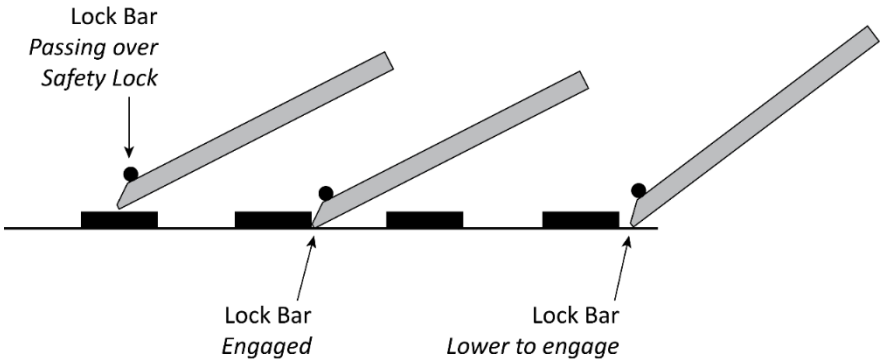
- **Adjustable height**. Having multiple Safety Locks means you can raise the Vehicle to just the right height for the work you are performing.

The following drawing shows the Safety Lock mechanism on one P-9000LT/F Platform.



Not necessarily to scale. Not all components shown. Lock Release Bar is shown by a dashed line so the Safety Locks can be seen.

The following drawing shows the positions the Lock Bar can be during normal operation.



The three positions are:

- **Passing over a Safety Lock**. The Platforms are not engaged on Safety Locks when they are passing over a Safety Lock. You will know when the Lock Bar has passed a Safety Lock by the loud clank sound it makes.
- **Engaged on a Safety Lock**. When engaged on Safety Locks, the Lift's Platforms are secure and will be held in place by the weight of the Vehicle on the Lift.
- **Past a Safety Lock**. When the Lock Bar passes a Safety Lock, it is in the right position to be lowered back down into an engaged position.

About Lifting Points

An important note to keep in mind when using any Lift is that the raised Vehicle must be balanced on the platforms. If the Vehicle is not balanced, it is more likely to become unstable and slide off the Lift, possibly damaging the Lift, the Vehicle, and anything under the Lift, including injuring people.

⚠ WARNING You ***must*** use the Lift Pads when raising a Vehicle. Never use just one, two, or three Lift Pads to raise a Vehicle. The Vehicle will be unstable and could slip off the Lift, possibly damaging the Lift, damaging the Vehicle, and injuring anyone under it.

To balance a Vehicle on the Lift, you need to have the Adapters (also called Pads) to contact the Vehicle on the manufacturer's recommended Lifting Points. By definition, when you raise a Vehicle by its Lifting Points, the Vehicle is balanced.

NOTICE The manufacturer's recommended Lifting Points do not take into consideration any major changes that might have been made to the Vehicle. If the engine is removed, for instance, or there is a 5,000 pound (2,268 kg) weight in the trunk, the Vehicle's Lifting Points will not be the best balancing points.

Some Vehicles have indicators on the underside that identify the Lifting Points; many do not.

Your best approach is to find the Vehicle in the guide provided with your Lift. *Vehicle Lifting Points for Frame Engaging Lifts*, or contact the manufacturer of the Vehicle. This guide also includes a page of safe lifting suggestions, which everyone who uses the Lift should read.

Lifting it Right: A Safety Manual from the Automotive Lift Institute, also provided with your Lift, includes a wide variety of information about Lifts and how to use them safely.

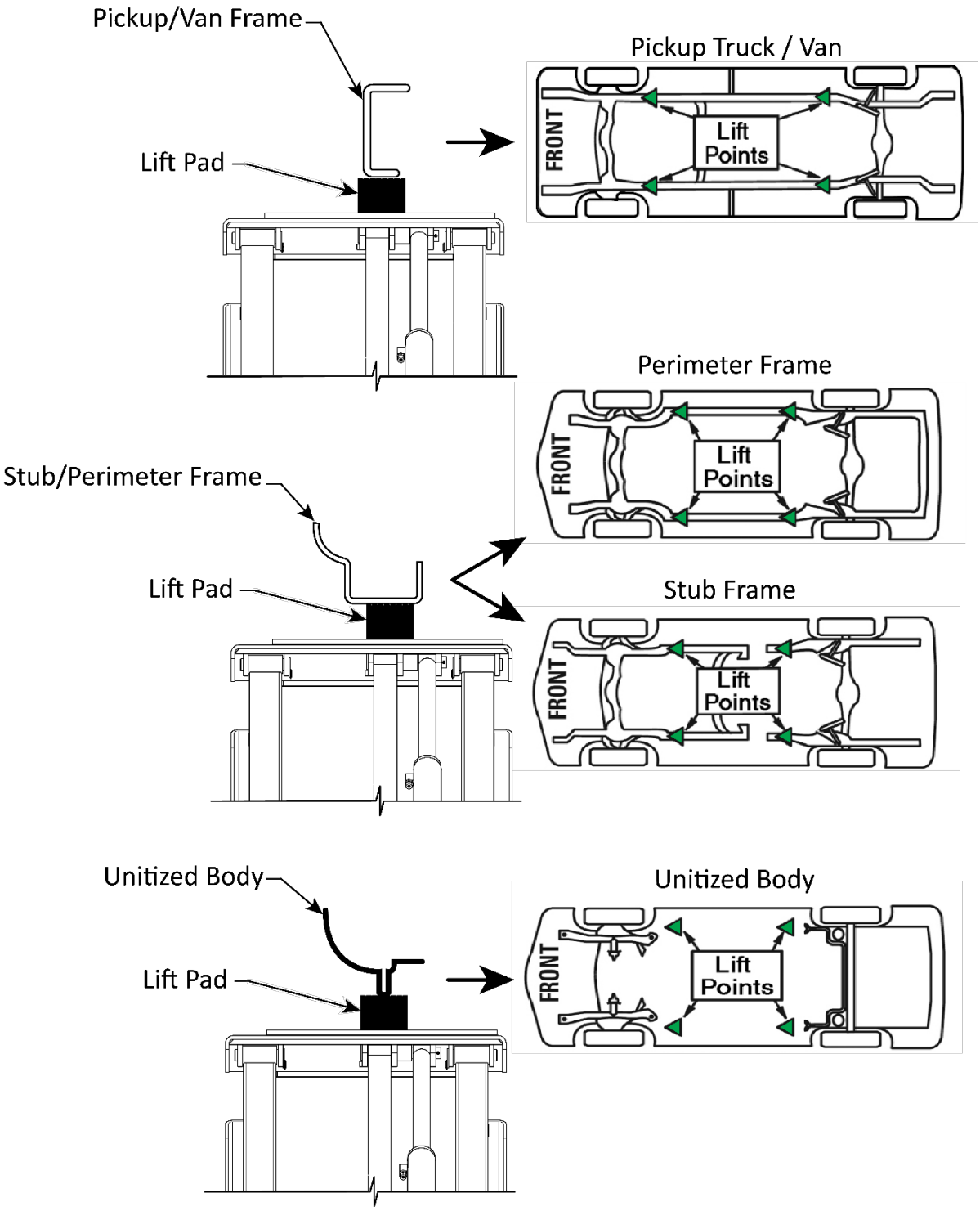
Some vehicles may have the manufacturers' recommended Service Garage Lift Point locations identified by a triangle mark on the underside of the vehicle, reference SAE J2184-(Current Edition). On some vehicles, specific Lifting Points are indicated by a label located on the driver's side door jamb.

⚠ **WARNING** Do not 'eyeball' the best location for the Lift Pads. ***You must use the manufacturer's recommended Lifting Points***. If you do not, the Vehicle could become unstable and fall, which could damage the Vehicle, damage the Lift, or injure or even kill anyone under the Vehicle.

⚠ **WARNING** Many specialty or modified Vehicles or Vehicles with unusually short or long wheelbases cannot be on raised on this Lift. Contact the Vehicle's manufacturer for Raising or Jacking guidance.

⚠ **WARNING** Before attempting to lift a Vehicle verify:

- The Vehicle Frame is strong enough to support its weight and has not been weakened or compromised by modification, damage, or corrosion.
- The Vehicle's individual axle weight does not exceed one-half the Lift's capacity.
- All Lift Pads are in secure contact with the Frame at the Vehicle manufacturers' recommended Lift Points.
- The Vehicle is stable on the Lift and the center of gravity is not shifted making the Vehicle off balance.
- The figure on the next page illustrates typical lifting points based on Vehicle Frame type.



Raising a Vehicle

This section describes how to position a Vehicle on the Lift and raise it.

Important Do not remove a Vehicle's tires and then lower the Vehicle all the way to the ground. The Lift requires some space between the ground and the underside of your Vehicle to build up enough force to raise the Vehicle.

⚠ **WARNING** **Crushing hazard and pinch points**. While the lift is operating, do not place any part of your body in any pathway or operating area of the Lift including scissor mechanisms and lowering platforms, until confirmation is made that the Safety Lock is fully engaged, or the platforms have fully lowered. This applies to both upward and downward movement of the lift.

⚠ **WARNING** You must always wear OSHA-approved (Publication 3151) Personal Protective Equipment when operating the Lift: leather gloves, steel-toed boots, eye protection, back belts, and hearing protection are ***mandatory***.

⚠ **WARNING** Never raise a Vehicle when its weight exceeds the rated capacity of the Lift. Do not leave the Controls until the Lift is engaged on Safety Locks or fully lowered. Only trained personnel should raise and lower the Lift. Only the Operator should be within 30 feet of the Lift when it is in use.

To raise a Vehicle:

1. Check the items listed in **Safety First**.

   If you find any issues, resolve them ***before*** attempting to raise a Vehicle.
2. Make sure both Platforms are fully lowered.
3. Drive the Vehicle over the lifting Platforms—the wheels should be centered on the Extended Platform.

⚠ **CAUTION** Make sure to situate the Vehicle so that neither the front nor the rear wheels are on the Lifting Platforms. If you raise the Platforms with the wheels on the Lifting Platforms, you could damage the vehicle.

4. Put the Vehicle in Park (or First gear manual transmission), apply the parking brake, and turn off the engine.
5. Walk around the Vehicle to make sure there are no obstructions or any other issues that will interfere with the raising or lowering of the Platforms. **Close all of the vehicle's doors**.
6. Place the Lift Blocks on the Platforms (under the factory-recommended Lifting Points of the Vehicle).

⚠ **WARNING** Do not 'eyeball' the best location for the Lift Blocks. ***You must use the manufacturer-recommended Lifting Points***. If you do not know the factory-recommended Lifting Points for the Vehicle, use *Vehicle Lifting Points for Frame-Engaging Lift* and SAE Standard J2184, *Vehicle Lift Points for Service Garage Lifting*, as resources to assist you in the proper positioning of a Vehicle for raising. If the Vehicle has an additional or uniquely positioned payload, have a qualified person calculate the Vehicle's center of gravity or have the Vehicle's center of gravity determined at a Vehicle scale.

7. At the Console, press and hold the **Raise** button, while monitoring the movement; the Platforms start rising.
8. Raise the platforms slowly while monitoring approaching contact points. As the Platforms begin raising and just ***before*** the Lift Blocks make contact with the Lifting Points on the Vehicle, release the **Raise** button: the Platforms will stop. Double check the locations where the Lift Blocks will touch the factory-recommended Lifting Points on the Vehicle. If necessary, adjust the Lift Blocks so they are properly positioned under the Lifting Points (you may need to lower the platforms slightly to adjust the Lift Blocks).

9. After confirming the Lift Blocks are properly positioned, press **Raise**; the Platforms start going up again and the Lift Blocks contact the Vehicle's Lifting Points.

⚠ **WARNING** If the Vehicle becomes unstable, release the **Raise** button, and immediately monitor the area. When safe to do so, carefully lower the Platforms back down to the ground and reevaluate the corresponding lift points.

10. Release **Raise** when the Vehicle's wheels are about 6″ (152 mm) off the ground; the Platforms stop.
11. Make sure all four Lift Blocks are in firm contact with the factory-recommended Lifting Points.

    If the Lift Blocks ***are*** in the right positions, do not move them.

    If the Lift Blocks are ***not*** in the right positions, press and hold **Lower** and ***carefully*** return the Vehicle to the ground, then restart the process from the beginning.
12. If the Lift Blocks are in the right positions, rock the Vehicle gently to test for stability.

    If the Vehicle is stable, press and hold **Raise** to continue raising Vehicle.

    If the Vehicle is ***not*** stable, press **Lower** and ***carefully*** return the Vehicle to the ground, correct the lift block placement, then start the raising process from the beginning.
13. To engage both Platforms on Safety Locks, raise the Vehicle just past the desired Safety Lock (you will hear a clank when it passes), release **Raise**, then press **Lower**.

    The Platforms will stop moving down when they engage on the Safety Locks; release **Lower**.

⚠ **WARNING** Before doing anything else (like working on the Vehicle or leaving the area), ***visually confirm*** that ***both*** Platforms are engaged on the same Safety Locks and all Lift Blocks are in stable contact with the Vehicle's factory-recommended Lifting Points.

14. Confirm that both Platforms are engaged on the same Safety Locks and that all Lift Blocks are in stable contact with the Vehicle's factory-recommended Lifting Points.

Lowering a Vehicle

This section describes how to lower a Vehicle from a raised position.

⚠ **WARNING** ***Never*** lower a Vehicle all the way to the floor with the wheels removed. Failure to comply with these instructions will void the product warranty. BendPak assumes no liability for loss of damage of any kind resulting from improper installation or use of this product.

To lower a Vehicle:

1. Check the items listed in **Safety First**.

   If you find any issues, resolve them ***before*** attempting to lower a Vehicle.
2. At the Console, press and hold the **Raise** button for a couple of seconds.

   This moves the Platforms off the Safety Locks, which is required for them to lower.
3. Press and hold the **Safety Lock Release** button, then at the same time press and hold the **Lower** button.

   Pressing and holding the **Safety Lock Release** button causes the Air Cylinder to push up and hold up the Lock Release Bar, preventing the Lock Bar from engaging on Safety Locks as the

Platforms lower. If you do not press and hold the **Safety Lock Release** button, the Platforms will engage on the closest Safety Lock instead of lowering.

⚠ **WARNING** If the vehicle becomes unstable at any point before it is fully lowered to the ground, release the **Lower** button, and immediately evacuate the area. If safe to do so, return to the Console and carefully lower the Platforms back down to the ground.

4. When the Platforms are fully lowered, release both buttons.

Lift Arm Kit

The P-9000LT/F has an optional Lift Arm Kit available.

The Lift Arms increase the capabilities of your Lift. The pads and extenders let you quickly and easily hit the lifting points of cars, light trucks, and SUVs. If you are using your P-9000LT/F in a pit environment, the Lift Arms install over your pit without interfering with your lube bay opening.

The Lift Arm Kit includes:

- Four telescoping Lift Arms
- Four round rubber pads
- Four extensions
- Four Safety Stop Bushings

Together, the Lift Arms can raise up to 9,000 pounds (4,082 kilograms). The Lift Arms are designed to be used together to raise a Vehicle; ***do not use the Lift Arms separately***.

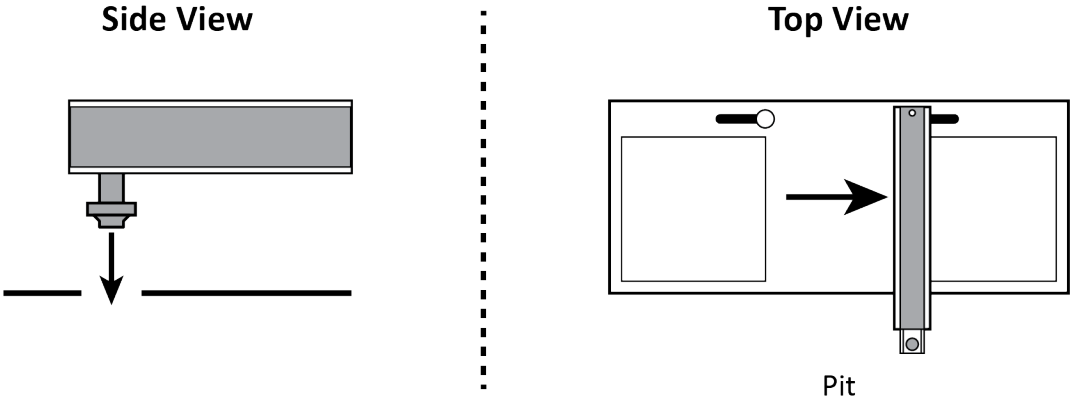
If you extend the Lift Arms (using their telescoping ability) past four inches from the edge of the Platform, the rated capacity of the Lift Arms is reduced:

- **Up to 4 inches**: 2,250 lbs. per Lift Arm, 9,000 lbs. total. *No reduction in rated capacity.*
- **At 6 inches**: 1,500 lbs. per Lift Arm, 6,000 lbs. total. *Reduction in rated capacity.*
- **At 10 inches**: 900 lbs. per Lift Arm, 3,600 lbs. total. *Reduction in rated capacity.*
- **At 18 inches (fully extended)**: 500 lbs. per Lift Arm, 2,000 lbs. total. *Reduction in rated capacity.*

⚠ **DANGER** Do not overload the Lift Arms. If you try to raise a Vehicle that is over the rated capacity, you could damage the Lift or the Lift Arms. Also, the Vehicle could fall, possibly damaging the Vehicle or causing serious bodily injury, even death.

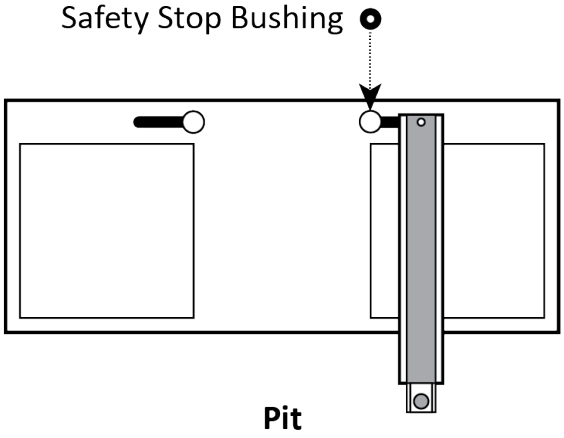
To install the Lift Arms:

1. Move the first Lift Arm into place on top of the Platform, with the non-telescoping end above the hole on the Platform you want to install it into.



⚠ **CAUTION** Be careful with the Lift Arms; they are heavy, and you can pinch your fingers. BendPak recommends wearing gloves when installing or moving the Lift Arms.

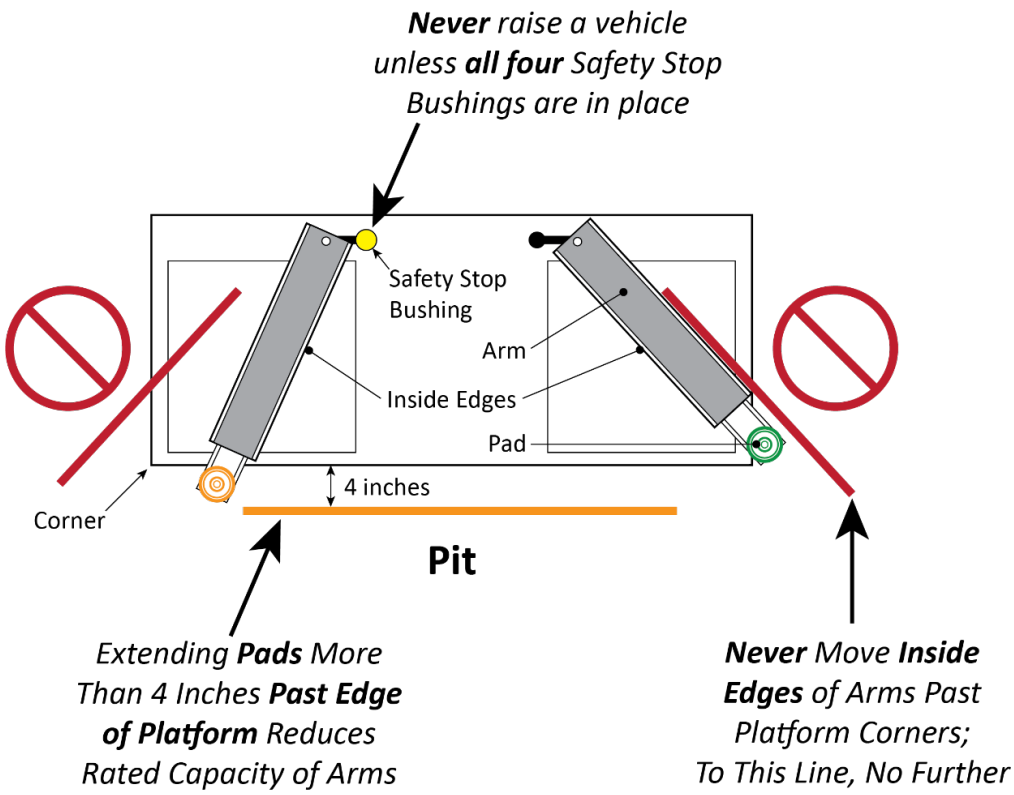
2. Put the flange on the bottom of the Lift Arm into the hole, then move the Lift Arm over into the narrower section of the hole.
3. Put the Safety Stop Bushing into the hole and firmly press it into place.



Important: Do not use any of the Lift Arms unless ***all four*** of the Safety Stop bushings are in place.

4. Repeat Steps 1 through 3 for the other Lift Arms.

⚠ **WARNING** Never move the inside edges of the Lift Arms past the corners of the Platform. They are not designed to hold weight past the inside edges; you could damage the Lift or the Lift Arms.


*Never raise a vehicle unless **all four** Safety Stop Bushings are in place*
Safety Stop Bushing
Arm
Inside Edges
Pad
4 inches
Corner
Pit
*Extending **Pads** More Than 4 Inches **Past Edge of Platform** Reduces Rated Capacity of Arms*
***Never** Move **Inside Edges** of Arms Past Platform Corners; To This Line, No Further*

Maintenance

⚠ DANGER Before performing any maintenance, verify the Lift is completely disconnected from power and ***cannot*** be re-energized until all maintenance is complete. BendPak strongly recommends using your Power Disconnect Switch during maintenance. The Lift uses electrical and pneumatic energy; if your organization has Lockout/Tagout policies, implement them ***before*** performing any maintenance.

To maintain your Lift:

- **Daily**: Keep the Lift clean. Wipe up any oil spills, clean any dirt.
- **Daily**: Make a visual inspection of all moving parts and check for damage or excessive wear. If you find any damaged or worn parts, take the Lift out of service until they are replaced.
- **Daily**: Verify the Safety Locks are in good operating condition. If you find that the Safety Locks are damaged or excessively worn, take the Lift out of service until they are replaced. ***Do not use your Lift if the Safety Locks are damaged or excessively worn***.
- **Weekly**: Check all controls to make sure they are functioning normally.
- **Weekly**: Check all labels on the unit. Replace them if they are illegible or missing.
- **Monthly**: Lubricate all pivot points. We recommend using white lithium grease or similar.
- **Monthly**: Check the Power Unit's Hydraulic Fluid levels. Refill if low.
- **Monthly**: If the Lift sees only occasional use, cycle the Lift up and down a few times every month to maintain the hydraulic seals' elasticity.

⚠ WARNING When accessing the Power Unit inside the Console for maintenance, do ***not*** use the Back Panel as the point of entrance; the Power Unit is mounted to the Back Panel. If the Back Panel is removed, the weight of the Power Unit may cause it to fall over and risk product damage and/or personal injury to anyone nearby.

- **Every two months**: Check all Anchor Bolts to make sure they are tight. If not, tighten them.
- **Twice yearly**: Have an Electrician come out and check all of the electrical components and electrical connections.

⚠ WARNING Do not operate your Lift if you find issues; instead, take the lift out of service, then contact your dealer, email **support@bendpak.com**, visit **bendpak.com/support**, or call **(800) 253-2363**, then follow prompts.

Torque Chart

FASTENER TORQUE CHART

	Bolt Grade (SAE)		SAE Grade 0-1-2			SAE Grade 5			SAE Grade 8			Socket Head Cap Screw SAE Grade
	Bolt Class (Metric)	4.6	Metric Class 4.6		8.8	Metric Class 8.8		10.9	Metric Class 10.9		12.9	Metric Class 12.9
Bolt Size (SAE)	Bolt Size (Metric)	Tightening Torque			Tightening Torque			Tightening Torque			Tightening Torque	
		Lubricated (ft-lbs)	Zinc Plated (ft-lbs)	Plain & Dry (ft-lbs)	Lubricated (ft-lbs)	Zinc Plated (ft-lbs)	Plain & Dry (ft-lbs)	Lubricated (ft-lbs)	Zinc Plated (ft-lbs)	Plain & Dry (ft-lbs)	Lubricated (ft-lbs)	Zinc Plated (ft-lbs)	Plain & Dry (ft-lbs)
1/4-20	M6 x1.0	2.3	2.6	3.0	5.8	6.6	7.7	8.3	9.4	11.1	9.7	11.0	13.0
5/16-18	M8 x 1.25	3.8	4.3	5.0	9.7	11.0	13.0	13.9	15.8	18.5	16.3	18.4	21.7
3/8-16	M10 x 1.50	10.8	12.3	14.4	27.9	31.6	37.2	39.9	45.2	53.2	46.7	52.9	62.2
7/16-14	N/A	24.0	27	30.0	35.0	42	50.0	55.0	59	70.0	61.0	68	76.0
1/2-13	M12 x 1.75	18.9	21.4	25.2	48.7	55.1	64.9	69.6	78.9	92.8	81.4	92.2	108.5
9/16-12	M14 x 2.00	30.2	34.2	40.2	77.8	88.1	103.7	111.3	126.1	148.4	130.0	147.4	173.4
5/8-11	M16 x 2.00	47	53	62	121	137	161	173	196	230	202	229	269
3/4-10	M18 x 2.50	65	73	86	167	189	222	239	270	318	279	316	372
7/8-9	M22 x 2.50	136	155	182	320	365	430	460	515	600	510	575	640

WARNING! Prior to Installation, inspect all accompanying manuals, parts lists and catalogs to ensure you have all the necessary parts. Identify all fasteners and their proper torque settings as illustrated on this chart. Proper torquing practices cannot be over emphasized. Torque values are provided as a convenient method of achieving correct pre-loading of highly stressed fasteners. If the fasteners are not properly plated, the fastener threads are not clean and free of deformation, or are not properly lubricated, the correct fastener pre-load will not be achieved even though the given torque value is reached. For this reason, it is critical that all fasteners be inspected for proper plating, thread form and correctly lubricated prior to torquing. Failure to verify a fastener's serviceability or to correctly lubricate the fastener prior to assembly and torquing will result in the fastener not being properly pre-loaded and subsequent failure of the fastener may occur. The torque values can only be achieved if the nut (or tapped hole) has a proof load greater than or equal to the bolt's minimum ultimate tensile strength. Clamp loads estimated as 75% of proof load for specified bolts. Torque values are listed in foot-pounds. Torque wrenches should be calibrated on an annual basis. Never use an impact driver on a torque multiplier.

Disposing of Used Hydraulic Fluid/Oil

Used Hydraulic Fluid cannot be disposed of by dropping it into the trash or dumping into the street. Hydraulic Fluid has toxic ingredients that are harmful to the environment. Either recycle the Hydraulic Fluid or drop it off at a hazardous waste collection facility. Dirty or contaminated fluid must be treated as hazardous waste. Rags and/or granular absorbents that have soaked up Hydraulic Fluid should be treated like hazardous waste and be disposed of at a hazardous waste collection facility.

To find an appropriate facility:

- Local automotive parts stores, auto care facilities, or automobile dealerships may accept fluid for recycling or, in some cases, for disposal. Contact them for more information.
- Cities, counties, and states often support both recycling facilities and hazardous waste collection facilities. Contact them to see if and where they have these programs.

If you are unable to find an appropriate facility, the website **earth911.com** has resources that may be of help.

P9000 Lift Disposal - End of Service Life

Once your Lift has reached the end of its service life it must be disposed of properly. Metal recyclers will be able to advise on methods and costs to remove the Lift and will *reuse* the materials, diverting them from landfills. The best option is to contact a metal recycling center and discuss the size and weight of the Lift to determine if the facility can deconstruct and recover the usable components and metals.

The Hydraulic Cylinders, Hoses, Fittings, and the Power Unit itself must be disposed of in accordance with current national, state, and local regulations governing the use and disposal of hazardous materials. These components and any used Hydraulic Fluid *must not* be disposed of by dropping it into the trash or dumping it into the street. The Hydraulic Fluid contains toxic ingredients that are harmful to the environment.

These components and the Hydraulic Fluid are required to be recycled or must be delivered to a hazardous waste collection facility.

If you have substantial amounts of Hydraulic Fluid, consider contacting a commercial waste disposal company. In all cases, the best approach is to find an appropriate facility and contact them — in advance — to ask them: what kinds of fluids and materials they accept, what kind of containers it must be in, what hours they are open, their location, and any other information specific to their facility.

If you are unable to find an appropriate facility, the website **earth911.com** has resources that may be of help.

Troubleshooting

This section describes how to troubleshoot your Lift.

The Lift uses electrical and pneumatic energy; if your organization has Lockout/Tagout policies, implement them before performing any troubleshooting.

Note: If your Lift is not functioning correctly, you must take it out of service until it is fixed.

Important: All repair work ***must*** be done by qualified personnel.

Issue	Action to Take
Platforms move erratically or squeak when in use.	Move the Platforms up and down a few times, with a break between each; there could be residual air in the Hydraulic System.
Platforms do not go up or down.	Make sure the Power Unit is connected to an appropriate power source. Make sure none of the Hydraulic Hoses are pinched or leaking. Make sure there is sufficient Hydraulic Fluid in the reservoir on the Power Unit.
Hydraulic Fluid is old or dirty.	Replace the dirty fluid with clean, an approved Hydraulic Fluid: SAE 30 Detergent Motor Oil
Platforms do not rise from a zero net rise position.	Platforms cannot raise the weight of a Vehicle from a completely flat position; that is, the wheels are removed, and the Lift is fully lowered. The Platforms need some space to get upward force started. Refer to **Fully Lowered Vehicle with No Wheels** below.
Platforms make odd noises when in use.	Lubricate hinge points using white lithium grease.
Platforms are slowly lowering on their own.	Make sure both Platforms are on Safety Locks (if not, Hydraulic Fluid could be leaking out, lowering the Platforms). Only leave the Lift either fully lowered or engaged on a Safety Lock.

If you continue to have problems with your Lift, contact your dealer, visit **bendpak.com/support**, email **support@bendpak.com**, or call **(800) 253-2363**, then follow prompts.

Fully Lowered Vehicle with No Wheels

The issue is that there is too much weight on the Platforms with no room to get upward force started. To fix this issue, you need to reduce the weight on the Platforms by at least half or raise the Vehicle off the Platforms some other way.

Methods that have fixed this issue include:

- Use floor jacks to raise the Vehicle up four inches or higher.
- Use a lifting device to raise the Vehicle up four inches or higher.

If you are still unable to raise your Vehicle, contact BendPak Technical Support for assistance.

Wiring Diagrams

Wiring diagrams (below) use the United States color codes for the three power source wires in the pigtail that travels out of the electrical box on the Power Unit:

- **Black**: Live
- **White**: Neutral
- **Green**: Ground

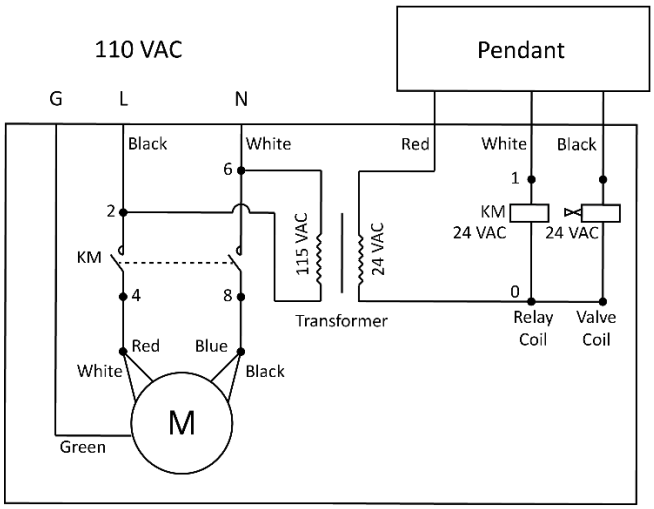
If you are using the unit in a European country, the Black – White – Green colors correspond to:

- **Brown**: Live
- **Blue**: Neutral
- **Green/Yellow**: Ground

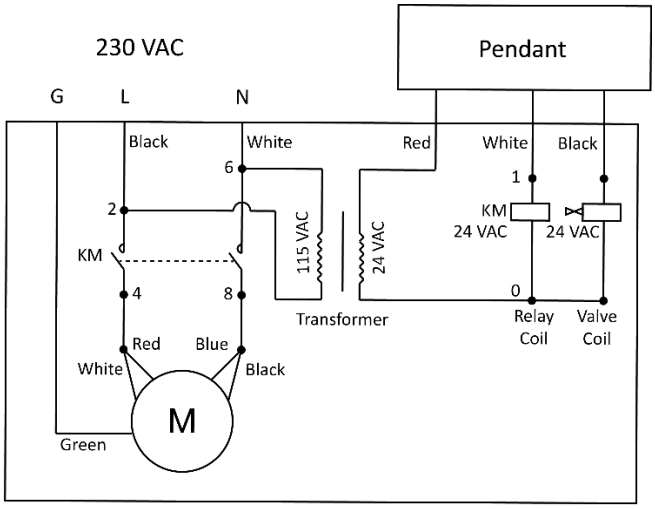
Information about color code conventions in other regions and countries is available online.

⚠ WARNING All electrical work, such as hard-wiring the unit or attaching a Plug to the Power Cord, ***must be done by a licensed Electrician*** *in accordance with all applicable local electrical codes*. Damage caused by improper electrical installation may void your warranty.

5585239



Wiring for 110 VAC



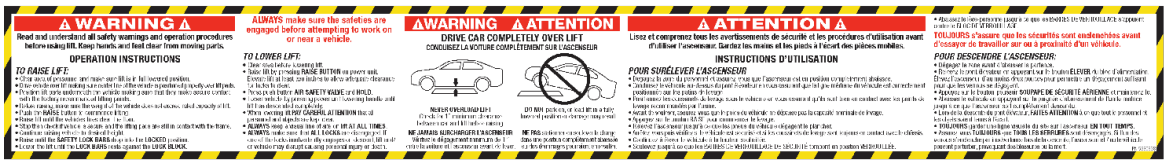
Wiring for 230 VAC

Labels

A

PN 5905204

B



PN 5930638

C

PN 5905350

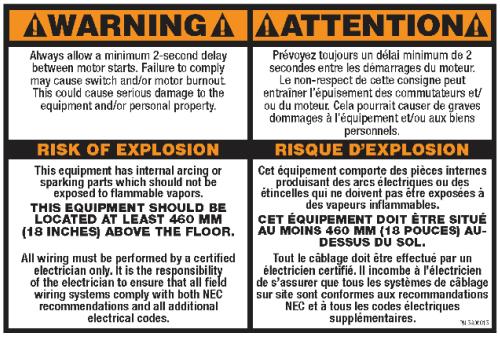
F

PN 5905039

E

PN 5905654

G



PN 5906015

H

⚠ CAUTION ⚠

1. Motor not protected - external overheat protection in accordance with CE code, Part 1, shall be provided.
2. Minimum circuit ampacity of conductor is 30A.

⚠ PRECAUCIÓN ⚠

1. Motor no está protegido - se proveerá protección contra sobrecalentamiento externo de conformidad con el código CE, Sección 1.
2. Ampacidad mínimo del conductor del circuito es 30A.

⚠ ATTENTION ⚠

1. Moteur non protégé - une protection externe contre la surchauffe conforme au code CE, Partie 1, doit être fournie.
2. L'ampacité minimale du circuit du conducteur est de 30A.

If connected to a circuit protected by fuses use time-delay fuse Marked D

Si está conectado a un circuito protegido por fusibles, utilice fusibles de acción retardada, tipo D

Si connecté à un circuit protégé par fusibles utilisez fusible temporisé Marqué D

REV. 1119 PN 5905478

PN 5905478

I

⚠ WARNING

This power unit contains a hydraulic pump that is capable of developing pressure in excess of 5,000 psi (345 BAR). A pressure relief valve is used to set the pressure at the desired level. Tampering with, adjusting, modifying, or removing the relief valve is extremely dangerous and is not recommended. Only a trained hydraulics technician, using a calibrated hydraulic pressure gauge to assure the proper pressure setting is achieved, should make adjustments to the relief valve.

WARNING: Changes to the output pressure may render the power unit incompatible with pressure limitations of other components in the hydraulic circuit. This may cause catastrophic failure of those components, and could result in property damage, serious personal injury, or death.

⚠ ADVERTENCIA

Esta central hidráulica contiene una bomba capaz de desarrollar una presión en exceso de 5,000 psi (345 BAR). La presión está establecida por la válvula de descarga al nivel de presión deseada. Es extremamente peligroso y no está recomendado, descomponerla, modificarla, ajustarla o removerla. Solo un técnico cualificado, utilizando un manómetro hidráulico calibrado para asegurar que la propia presión es alcanzada, podrá hacer modificaciones a la válvula de descarga.

ADVERTENCIA: Cambios a la salida de presión, podrían hacer la central hidráulica incompatible con las limitaciones de presiõn de otros componentes en el circuito hidráulico. Esos componentes podrían funcionar mal causando una catástrofe y podría resultar en daño a la propiedad, serio daño personal o muerte.

⚠ WARNING

Dieses Hydraulikaggregat beinhaltet eine Pumpe, welche einen Betriebsdruck bis zu 345 bar aufbauen kann. Ein integriertes Druckbegrenzungsventil begrenzt diesen Betriebsdruck. Missbrauch, verandern der Druckeinstellung, technische Veranderungen oder entfemen des Ventils, sind extrem gefiihrlichund daher nicht zu empfehlen. Nur qualifiziertes Personal mit Hydraulikerfahrung, solite unter Verwendung eines kalibrierten Manometers den Druck dieses Sicherheitsventils einstellen.

WARNUNG: Elne Veranderung des Betriebsdruckes am Aggregat, kann zu Problemen bei anderen angeschosenen Komponenten fuhren, welche nur uber einen gerIngeren zUlassigen Betrlebsdruck verfugen. Dies kann zur vollstandigen Zerstorung dieser Gerate fiihren und zusitzlich zu sehweren Verletzungen oder sogar zu Lebensgefahr beim Bedienpersonal fuhren.

⚠ AVERTISSEMENT

Cet équipement utilise une pompe hydraulique capable defournirunepressionde345bar.Unesoupapedesureté est utilisée pour régler la pression à la valeur souhaitée. Altérations, réglages, modifications ou suppression de cette soupape de sureté peuvent se révéler très dangereux et ne sont absolument pas recommandes. Uniquement un hydraulicien qualifie, utilisant un manomètre pour permettre l' affichage précis de la pression, pourra assurer les réglages de la soupape de sureté.

AVERTISSEMENT: Tout changement de la valeur de la pression de sortie peut rendre incompatible l' utilisation de cet équipement avec les autres composants du circuit hydraulique. Ceux-ci peuvent être endommages de manière définitive et peuvent causer des dégâts matériels, ainsi que des risques de blessures séreuses ou la mort.

L

WARNING

VERY IMPORTANT

TO PROLONG LIFE EXPECTANCY OF CYLINDER SEALS AND PREVENT PREMATURE LEAKAGE AND WEAR, RAISE LIFT TO FULL HEIGHT AT LEAST ONCE A DAY. ALSO, THIS IS AN EFFECTIVE WAY TO BLEED ANY TRAPPED AIR AND MAINTAIN EQUAL LIFTING OF THE SYSTEM.

ATTENTION

TRÈS IMPORTANT

POUR PROLONGER L'ESPÉRANCE DE VIE DES JOINTS CYLINDRES ET PRÉVENIR LES FUITES PRÉMATURÉES ET PORTEZ, ÉLEVEZ LE PLEIN ÉLEVÉ HAUTEUR AU MOINS UNE FOIS PAR JOUR.AUSSI, C'EST UN EFFICACE FAÇON DE SAIGNER TOUT PIÉGÉ AIR ET MAINTIEN ÉGAL LEVAGE DU SYSTÈME.

PN 5905176

PN 5905176

K

NOTICE

If attachments, accessories, or configuration modifying components used on this lift are located in the load path and affect operation of the lift, affect the lift electrical listing, or affect intended vehicle accommodation; and if they are not certified for use on this lift, then the certification of this lift shall become null and void. Contact the participant for information pertaining to certified attachments, accessories, or configuration modifying components.

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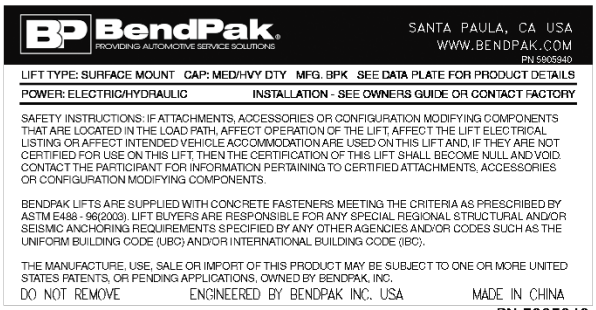
PN 5905377

M

PN 5905135

N



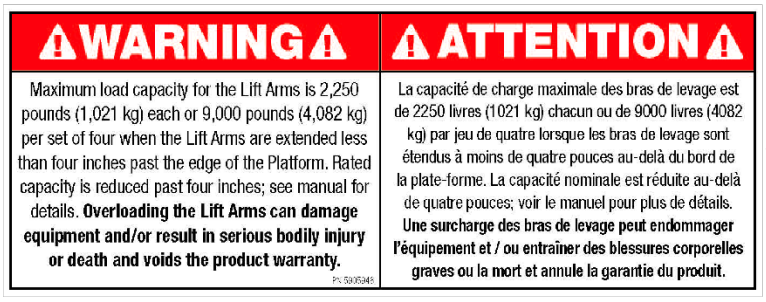
PN 5905940

Q

R

PN 5906044

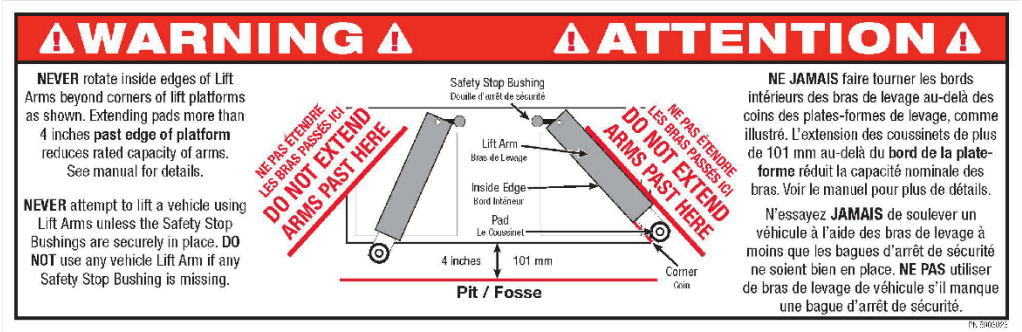
O



PN 5905946

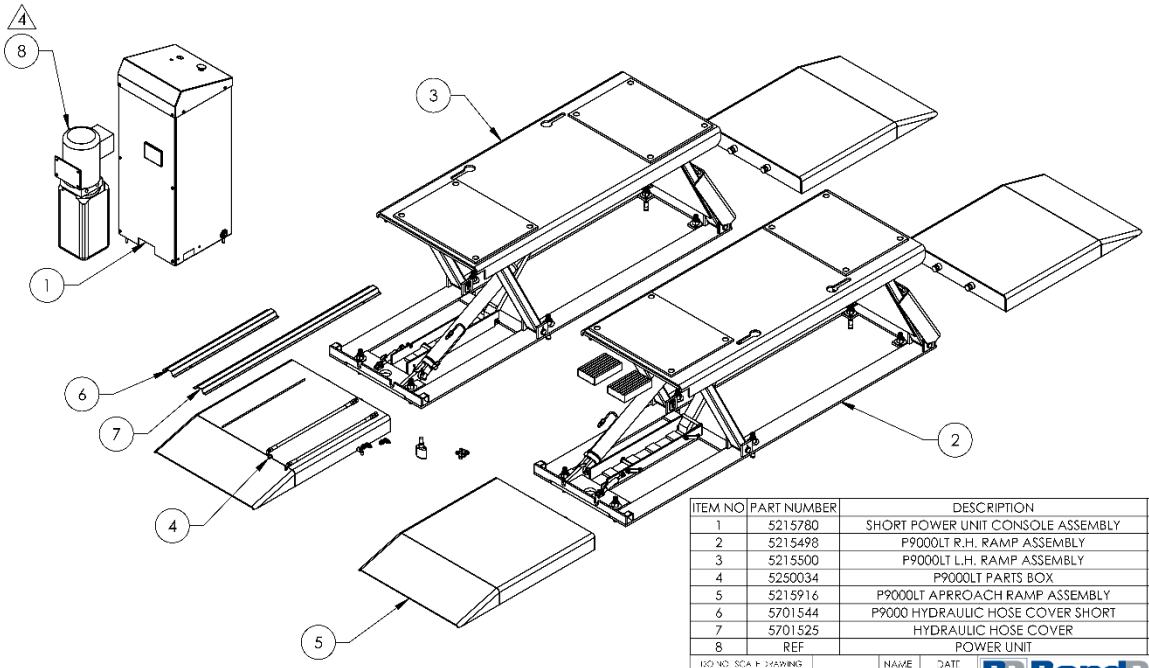
Optional Arm Kit

P



PN 5906023

Parts Diagrams



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5215780	SHORT POWER UNIT CONSOLE ASSEMBLY	1	G
2	5215498	P9000LT R.H. RAMP ASSEMBLY	1	L
3	5215500	P9000LT L.H. RAMP ASSEMBLY	1	L
4	5250034	P9000LT PARTS BOX	1	N
5	5215916	P9000LT APRROACH RAMP ASSEMBLY	4	A
6	5701544	P9000 HYDRAULIC HOSE COVER SHORT	1	A
7	5701525	HYDRAULIC HOSE COVER	1	A
8	REF	POWER UNIT	1	-

		NAME	DATE
ISO NO SCALE DRAWING			
DIMENSIONS ARE IN MM	DRAWN	TS	31/09/2018
	CHECKED		
	THIRD ANGLE PROJECTION		

PROPRIETARY AND CONFIDENTIAL

BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: P9000LT PRODUCTION LIFT

SIZE	DWG. NO.	REV
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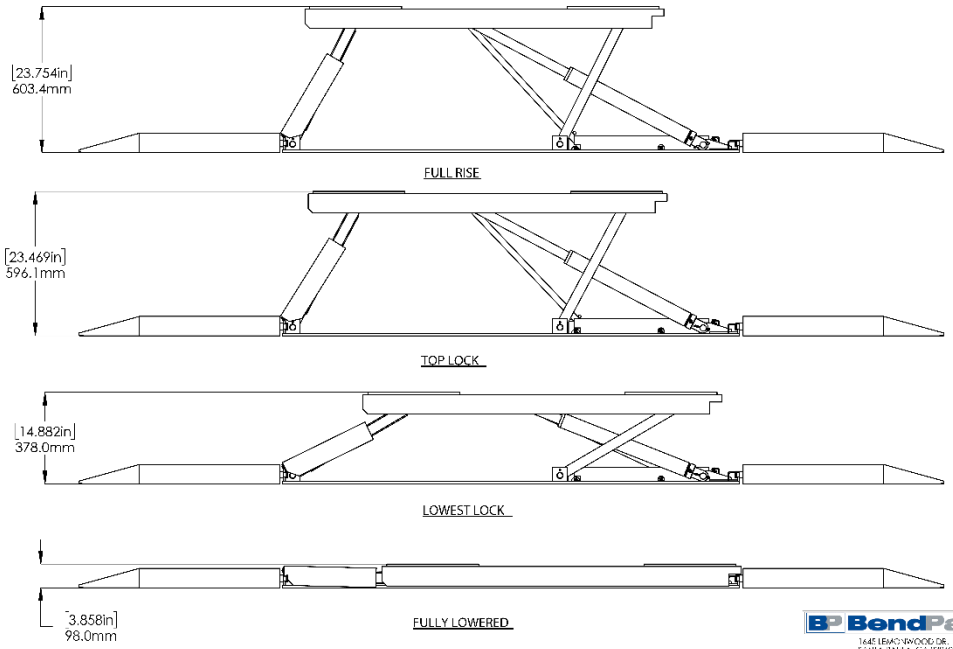
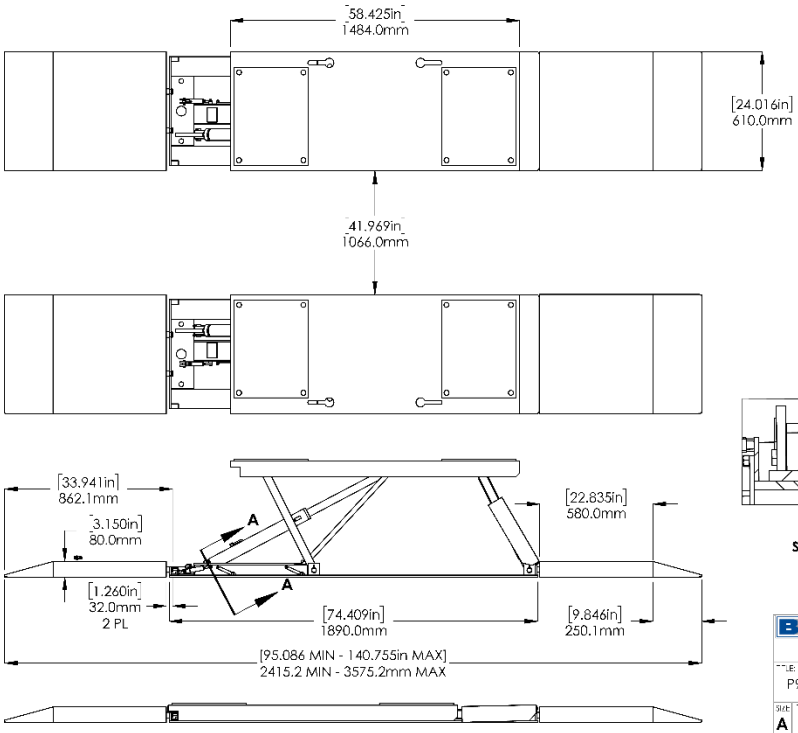
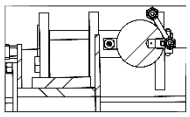


BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: P9000LT PRODUCTION LIFT

SIZE	DWG. NO.	REV
A	5260196	X
	SCALE: 1:16	SHEET 2 OF 3





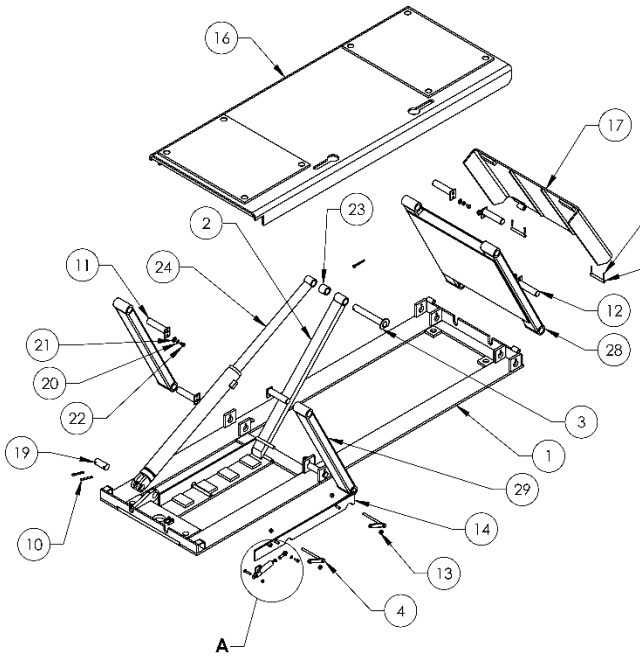
SECTION A-A
SCALE 1 : 5

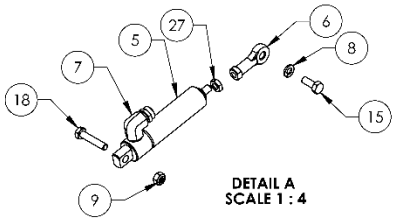
BendPak
1645 LEWMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: P9000LT PRODUCTION LIFT

SIZE	DWG. NO.	REV
A	5260196	X

SCALE: 1:20 SHEET 3 OF 3





DETAIL A
SCALE 1 : 4

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5601220	P9000LT R.H. BASE WELDMENT	1	C
2	5600886	P-9000/P-9000F R.H. SAFETY BAR WELDMENT	1	C
3	5600969	P-9000/P-9000F UPPER HINGE PIN WELDMENT	1	A
4	5601194	P9000 SAFETY BAR PIVOT ARM WELDMENT	2	B
5	5502195	AIR CYLINDER, Ø19mm x 25 STROKE	1	
6	5505625	FEMALE ROD END M6 x 33	1	–
7	5550087	FTG ELB -04 COMP x -02 NPT	1	–
8	5545026	WASHER M6 x Ø12 SL	1	–
9	5535357	NUT M6 x 1.0, NL CL8	1	–
10	5505400	COTTER PIN Ø6 x 50mm	3	–
11	5601221	P9000 LT SERIES RAMP HINGE ARM PIVOT PIN WELDMENT	4	A
12	5601244	P9000 LT SERIES BASE HINGE ARM PIVOT PIN WELDMENT	4	A
13	5535001	NUT M8 x 1.25 NL	4	–
14	5601052	P9000 SAFETY LOCKOUT BAR WELDMENT, RH	1	D
15	5530019	HHB M6 x 1 x 16mm	1	–
16	5215499	P9000LT R.H. TOP DECK ASSEMBLY	1	C
17	5601222	P-9000LT HINGED RAMP WELDMENT	1	B
18	5530047	HHB, M6 x 1 x 30mmL	1	–
19	5746178	P-9000/P-9000F CLEVIS PIN	1	B
20	5545202	WASHER M8 x Ø15 SL	8	–
21	5545341	WASHER M10 x Ø20 FLAT	8	–
22	5530025	HHB M8 x 1.25 x 12mm	8	–
23	5756035	P-9000/P-9000F SAFETY BAR SPACER	1	A
24	5502030	CYLINDER ASSEMBLY Ø2.0 x 17.75	1	H
25	5746425	P9000 HINGED RAMP PIN	2	A
26	5505006	COTTER PIN Ø3.2 x 20mm	4	–
27	5535230	NUT 1/4-28 JN	1	–
28	5620613	P9000LT SERIES ASYMMETRIC HINGE DOUBLE ARM WELDMENT	1	A
29	5620612	P9000LT SERIES ASYMMETRIC HINGE ARM WELDMENT	2	A

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	TS	07/09/2016
CHECKED		

THIRD ANGLE PROJECTION

DIMENSIONS ARE IN MM

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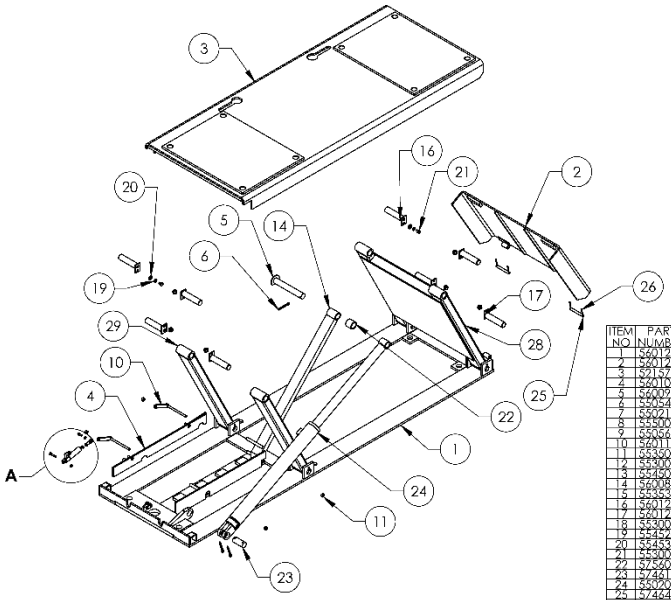
1645 LEWMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: P9000LT R.H. RAMP ASSEMBLY

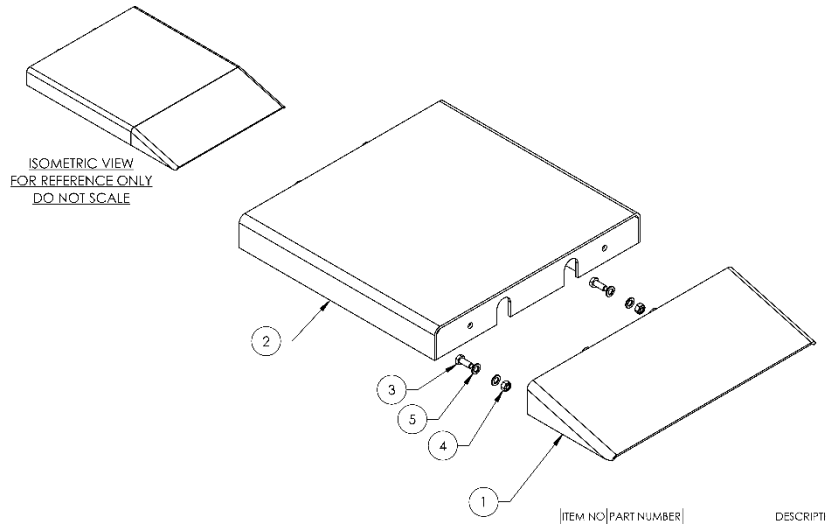
SIZE	DWG. NO.	REV
A	5215498	L

SCALE: 1:18 SHEET 1 OF 1



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601219	P9000LT L.H. BASE WELDMENT	1	C
2	5601222	P-9000LT HINGED RAMP WELDMENT	1	B
3	5215215	P9000LT L.H. TOP DECK ASSEMBLY	1	C
4	5601051	P9000 SAFETY LOCKOUT BAR WELDMENT, LH	1	D
5	5600969	P-9000/P-9000F UPPER HINGE PIN WELDMENT	1	A
6	5505400	COTTER PIN Ø6 x 50mm	3	–
7	5502195	AIR CYLINDER, Ø19mm x 25 STROKE	1	
8	5550087	FTG ELB -04 COMP x -02 NPT	1	–
9	5505525	FEMALE ROD END M6 x 33	1	
10	5601124	P9000 SAFETY BAR PIVOT ARM WELDMENT	2	B
11	5535001	NUT M8 x 1.25 NL	4	–
12	5530019	HHB M6 x 1 x 16mm	1	–
13	5545026	WASHER M6 x Ø12 SL	1	–
14	5600887	P-9000/P9000F L.H. SAFETY BAR WELDMENT	1	C
15	5535357	NUT M6 x 1.0, NL CL8	1	–
16	5601221	P9000 LT SERIES RAMP HINGE ARM PIVOT PIN WELDMENT	4	A
17	5601244	P9000 LT SERIES BASE HINGE ARM PIVOT PIN WELDMENT	4	A
18	5530047	HHB, M6 x 1 x 30mmL	1	–
19	5545202	WASHER M8 x Ø15 SL	8	–
20	5545341	WASHER M10 x Ø20 FLAT	8	–
21	5530025	HHB M8 x 1.25 x 12mm	8	–
22	5756035	P-9000/P-9000F SAFETY BAR SPACER	1	A
23	5744178	P-9000/P-9000F CLEVIS PIN	1	B
24	5502058	CYLINDER ASSEMBLY Ø32.0 x 17.75	1	H
25	5744425	P9000 HINGED RAMP PIN	2	A
26	5505002	COTTER PIN Ø3.2 x 20mm	4	
27	5535230	NUT 1/4-28 JN	1	–
28	5620613	P9000LT SERIES ASYMMETRIC HINGE DOUBLE ARM WELDMENT	1	A
29	5620612	P9000LT SERIES ASYMMETRIC HINGE ARM WELDMENT	2	A

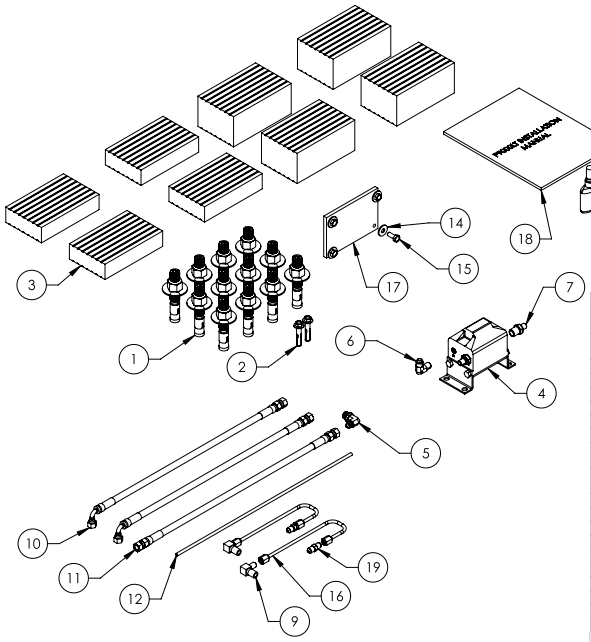
DO NOT SCALE DRAWING		NAME	DATE	BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM	DRAWN	TS	01/09/2018	TITLE: P9000LT L.H. RAMP ASSEMBLY
	CHECKED			SIZE: A — DWG. NO: 5215500 — REV: L
	THIRD ANGLE PROJECTION			SCALE: 1:18 — SHEET 1 OF 1



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601472	P9000 SHORT APPROACH RAMP WELDMENT	1	A
2	5601473	P9000 APPROACH RAMP EXTENSION WELDMENT	1	A
3	5530563	HHB M12 x 1.75 x 30 CL10.9	2	-
4	5535041	NUT M12 x 1.75 NL CL10.9	2	-
5	5545347	WASHER, M12 FLAT WASHER	4	-

DO NOT SCALE DRAWING		NAME	DATE	BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM	DRAWN	CC	01/21/2020	TITLE: P9000LT APPROACH RAMP ASSEMBLY
	CHECKED	OR	04/23/2020	SIZE: A — DWG. NO: 5215916 — REV: A
	THIRD ANGLE PROJECTION			SCALE: 1:8 — SHEET 1 OF 2

WHERE USED
P9000LT

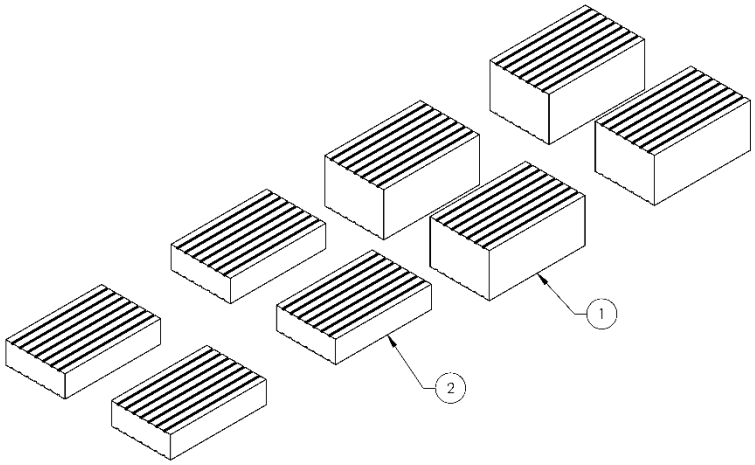


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5530456	AB 3/4" x 4 - 3/4"	12	-
2	5530326	AB Ø3/8" x 2-1/4"	2	-
3	5210232	LOW RISE SCISSOR LIFT RUBBER PAD KIT, SET OF 8	1	A
4	5590104	HYDRAULIC FLOW DIVIDER, CAST IRON; ST	1	-
5	5550103	FTG ELB -04 JIC -06 ORB	1	-
6	5550106	FTG ELB -04JIC x 3/8" NPT	1	-
7	5550100	FTG NPL -04 JIC x -06 NPT	2	-
8	5550001	FTG NPL -04 COMP x -02 NPT	2	-
9	5550086	FTG ELB -04 NPT x -04 JIC	2	-
10	5570040	HYDRAULIC HOSE ASSEMBLY Ø6.35 x 4270mm SB	2	D
11	5570911	HYDRAULIC HOSE ASSEMBLY Ø6.35 x 458mm DS	1	B
12	5570795	1/4" POLY-FLO TUBING	5182mm	-
13	5550395	FTG TEE -04 COMP x -04 COMP x -04 COMP	2	-
14	5545340	WASHER M8 x24 FLAT	4	-
15	5530304	HHB M8 x 1.25 x 20mm	4	-
16	5215466	P9000 HYDRAULIC LINE ASSEMBLY	2	C
17	5715003	POWER UNIT VIBRATION DAMPENER	1	B
18	5900022	P9000LT INSTALLATION MANUAL	1	-
19	5550095	FTG NPL -04 JIC x -04 JIC	2	-
20	5550004	FTG ELB 1/4 TUBE INS 3/8 NPT	1	-
21	5580012	LIQUID PTFE THREAD SEALANT 50ml	1	-

DO NOT SCALE DRAWING		NAME	DATE	BendPak
	DRAWN	CA	10/18/2023	30440 AGOURA RD., AGOURA HILLS, CA 91301
DIMENSIONS ARE IN MM	CHECKED			
	THIRD ANGLE PROJECTION			TITLE: P9000LT PARTS BOX
	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.			SIZE: A DWG. NO. 5250385 REV: A
				SCALE: 1:8 SHEET 1 OF 1

WHERE USED
P9000LT
P9000LTF

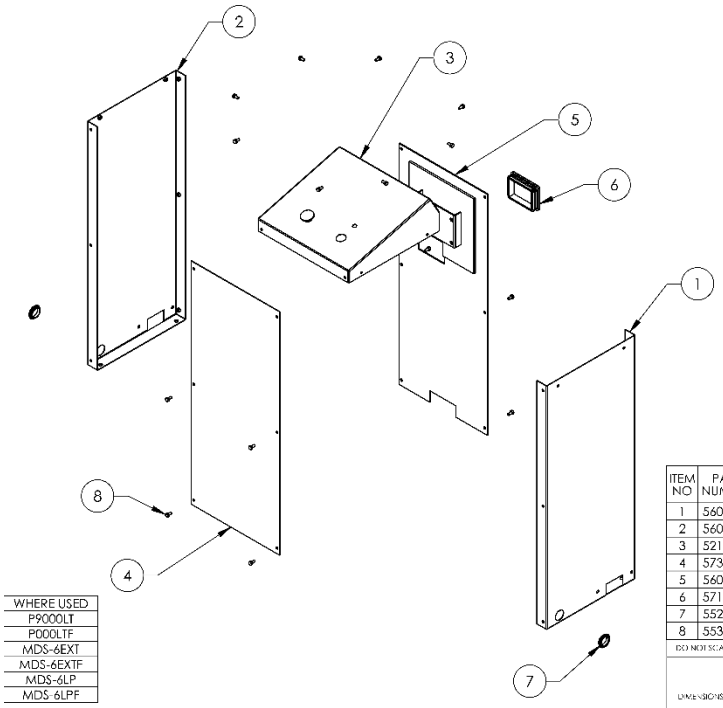
REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DERIVED FROM 5210944	09/18/2019	TM	01128

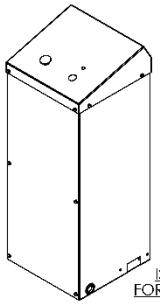


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5300862	LOW RISE SCISSOR LIFT 75mm RUBBER PAD KIT, SET OF 4	1	A
2	5300861	LOW RISE SCISSOR LIFT 38mm RUBBER PAD KIT, SET OF 4	1	A

DO NOT SCALE DRAWING		NAME	DATE	BendPak
	DRAWN	TM	09/18/2019	1645 PALOMINO DR., SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM	CHECKED	CA	11/01/2019	
	THIRD ANGLE PROJECTION			TITLE: LOW RISE SCISSOR LIFT RUBBER PAD KIT, SET OF 8
	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.			SIZE: A DWG. NO. 5210232 REV: A
				SCALE: 1:5 SHEET 1 OF 1

WHERE USED
LR-60 SERIES
DLR 6 SERIES
MDS-6 SERIES
P9000LT SERIES
SP-7XE SERIES



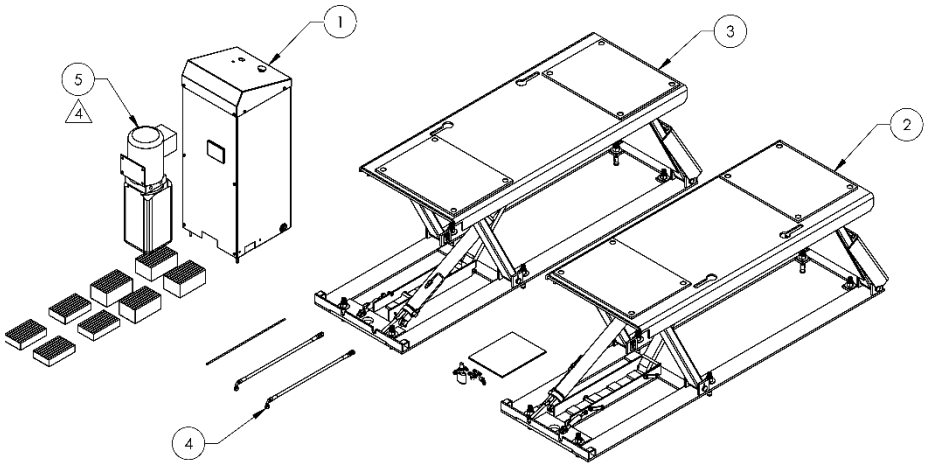


ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE

WHERE USED
P9000LT
P000LTF
MDS-6EXT
MDS-6EXTF
MDS-6LP
MDS-6LPF

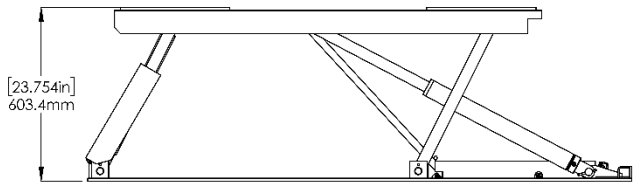
ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601259	SHORT POWER UNIT CONSOLE WELDMENT, R.H.	1	A
2	5601260	SHORT POWER UNIT CONSOLE WELDMENT, L.H.	1	A
3	5215857	3-BUTTON 110/220V CONSOLE TOP	1	C
4	5737071	SHORT POWER UNIT CONSOLE DOOR	1	A
5	5601261	SHORT POWER UNIT CONSOLE DOOR WELDMENT, REAR	1	A
6	5715196	D2/XPR POLYETHYLENE COVER BLOCK 105 x 80	1	D
7	5520329	GROMMET GRO-1.25-UL CAPLUGS	2	-
8	5530031	HHB M6 x 1.0 x 12mm	16	-

DO NOT SCALE DRAWING | | NAME | DATE
DRAWN | TM | 05/01/2018
CHECKED | OR | 09/24/2021
DIMENSIONS ARE IN MM
THIRD ANGLE PROJECTION
PROPRIETARY AND CONFIDENTIAL
BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060
TITLE: SHORT POWER UNIT CONSOLE ASSEMBLY
SIZE A | DWG. NO. 5215780 | REV G
SCALE: 1:12 | SHEET 1 OF 1

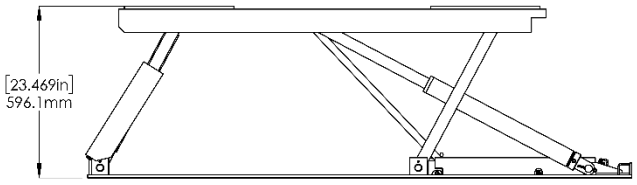


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5215780	SHORT POWER UNIT CONSOLE ASSEMBLY	1	G
2	5215498	P9000 LT SERIES R.H. RAMP ASSEMBLY	1	L
3	5215500	P9000LT L.H. RAMP ASSEMBLY	1	L
4	5250034	P9000LT PARTS BOX	1	N
5	REF	POWER UNIT	1	-

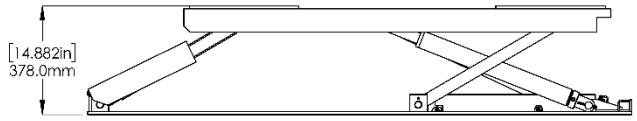
DO NOT SCALE DRAW NG | | NAME | DATE
DRAWN | JM | 01/10/2018
CHECKED
DIMENS ON S ARE IN MM
THIRD ANGLE PROJECTION
PROPRIETARY AND CONFIDENTIAL
BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060
TITLE: P9000LTF PRODUCTION LIFT
SIZE A | DWG. NO. 5260197 | REV X
SCALE: 1:20 | SHEET 1 OF 3



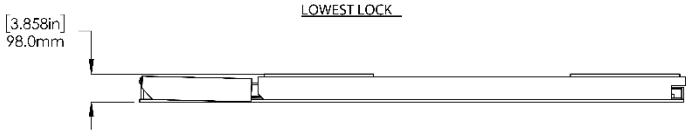
FULL RISE



TOP LOCK



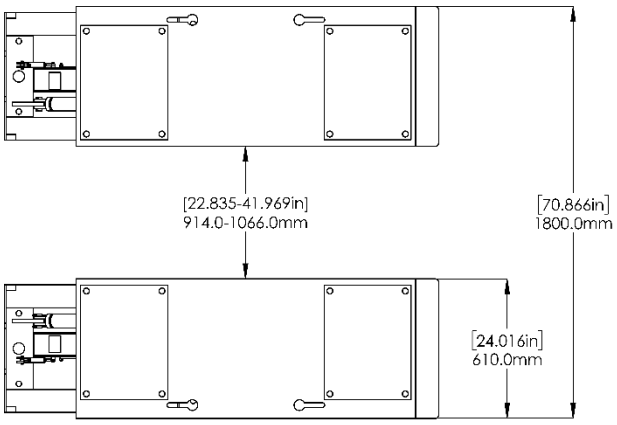
LOWEST LOCK

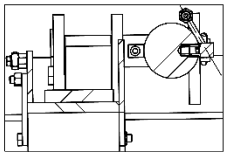


FULLY LOWERED

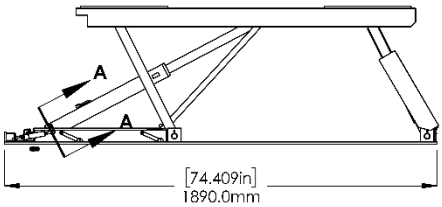
BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: P9000LTF PRODUCTION LIFT		
SIZE A	DWG. NO. 5260197	REV X
SCALE: 1:15		SHEET 2 OF 3





SECTION A-A
SCALE 1 : 5



BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: P9000LTF PRODUCTION LIFT		
SIZE A	DWG. NO. 5260197	REV X
SCALE: 1:20		SHEET 3 OF 3

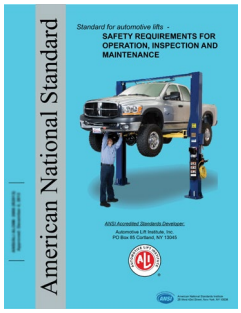
Automotive Lift Institute (ALI) Store

You probably checked the **ALI's Directory of Certified Lifts** (www.autolift.org/ali-directory-of-certified-lifts/) before making your most recent Lift purchase, but did you know the **ALI Store** (www.autolift.org/ali-store/) offers a wide variety of professional, easy-to-use, and reasonably priced training and safety materials that will make your garage a safer place to work?

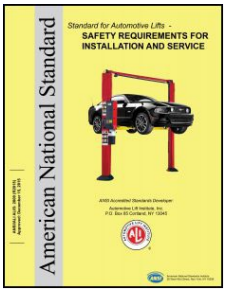
The ALI Store is your trusted source for workplace safety!

Lifting It Right Online Certificate Course. Make *sure* you and your people are lifting vehicles the right way.

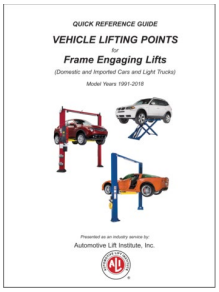
ALI Lift Inspector Certification Program Registration. Become a ALI Certified Lift Inspector.



ANSI/ALI ALOIM Standard for Automotive Lifts. Safety Requirements for Operation, Inspection, and Maintenance.



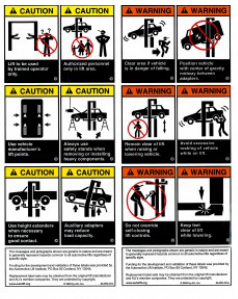
ANSI/ALI ALIS Standard. Safety Requirements for Installation and Service.



Guide to Hitting Vehicle Lifting Points for Frame-Engaging Lifts. Don't eyeball your lifting points, ***know*** where they are.

Lift Operator Safety Materials. Five safety documents in a single package.

Lifting It Right. A hardcopy version of the *Lifting It Right* safety manual from the Automotive Lift Institute.



Uniform Warning Labels and Placards for 2-Posts. Labels in Mandarin, French Canadian, and Spanish are also available.

Safety Tips Card. Reminds your people of 13 key safety tips to follow daily.

Visit today and receive the training and materials you need to work safely: www.autolift.org/ali-store/.

Maintenance Log

Maintenance Log

Maintenance Log

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