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Full-Rise Scissor Lift Installation and Operation Manual

Manual P/N 5900010 - Manual Revision A2 - February 2020

Models:

- SP-7XL
- SP-7XLF



Model SP-7XL shown.

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



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 serious 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. SP-7XL/F Full-Rise Scissor Lift, *Installation and Operation Manual*, Manual Part Number 5900010, Manual Revision A2, released February 2020.

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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. Feel free to contact us at any time to get the latest information about any product: **bendpak.com**.

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/** and 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:

- 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.
- Keep all instructions permanently with the product and make sure all labels are clean and visible.
- 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:



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Introduction

This manual describes the SP-7XL and SP-7XLF, which are full-rise, frame-engaging, lifts that feature an open-center design that provides full under-Vehicle access. They can be installed at ground level or recessed (the **F** in SP-7XL**F** stands for "flush mount"), frequently over a service pit. Flush mount models do not use ramps, but they do require a recessed surface.

Both models raise vehicles up to 7,000 lbs (3,175 kg).

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

This manual is mandatory reading for all SP-7XL/F users, including anyone who sets up, operates, maintains, or repairs them.

DANGER Be very careful when setting up, 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 **techsupport@bendpak.com**, or by phone at **(800) 253-2363**, extension 196.

You may also contact BendPak for parts replacement information (please have the model and serial number of your unit available) at **(800)** 253-2363, extension 191.

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 manual carefully before using your new product. Do not set up or operate the product until you are familiar with all operating instructions and warnings. Do not allow anyone else to operate the product until they are also familiar with all operating instructions and warnings.

General Safety Information

- The product is a full-rise scissor lift. Use it only for its intended purpose. Do not make any modifications to the product.
- The product should only be operated by authorized personnel.
- 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, ANSI-approved eye protection, back belts, and hearing protection *are mandatory*.
- Keep loads centered and balanced on the Platforms.
- When the Lift is in use, keep all body parts away from it. Only the Operator should be within 30 feet when the Lift is in use.
- When the product is in use, keep all body parts away from it.
- Make sure all operators read and understand the *Installation and Operation Manual*. Keep the manual near the device at all times.
- Make a visual inspection of the product before using it. Check for damage or missing parts. Do not use the product if you find any issues. Instead, take it out of service, then contact your dealer, email techsupport@bendpak.com, visit bendpak.com/support, or call (800) 253-2363.
- Make a thorough inspection at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.
- BendPak recommends referring to the ANSI/ALI ALIS Standard (R2015) *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing your Lift.

Symbols

Following are the symbols used in this manual:

	Calls attention to an immediate hazard that will result in injury or death.
	Calls attention to a hazard or unsafe practice that could result in injury or death.
	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.
-`ᢕ́`- тір	Calls attention to information that can help you use your product better.

Liability Information

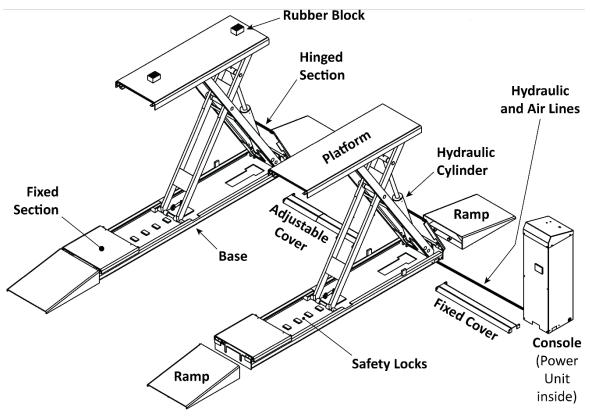
BendPak Inc. assumes **no** liability for damages resulting from:

- 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

SP-7XL/F components include:

- **Console**. Hosts the controls for the Lift (on top) and the Power Unit (inside). The connections for the Hydraulic Lines and the Air Lines connect to the Power Unit inside the Console.
- **Power Unit**. Provides Hydraulic Fluid to the Hydraulic Cylinders, which they use to raise the Platforms. Housed inside the Console. Connects to an external power source.
- **Removable Ramps**. Used to drive on to or off of the Platforms. Not included with the SP-7XLF.
- **Hinged Section**. Hinges up when the Platforms are raised.
- **Fixed Section**. On the opposite end from the Hinged Section. Can be raised for installation, but otherwise stays in place. Does not hinge up when the Platforms are raised.
- **Platforms**. Flat steel plates that raise and lower. The Platforms, or the Lift Blocks on the Platforms, make contact with the undercarriage of the Vehicle in order to raise and lower it.
- **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 a Platform and a Base is a Frame.
- **Hydraulic Cylinders**. Push the Platforms up to raise a Vehicle, move down to lower a Vehicle.
- **Safety Locks**. Hold the Platforms while they are raised. The SP-7XL/F has eight Safety Lock positions, which lets you select the right Platform height for your needs.
- Air Cylinders. Use pressurized air to move the Platforms off the Safety Locks so you can lower the Lift.
- Lift Blocks. Two-inch-high rubber blocks that make contact with the Lifting Points on the Vehicle being raised. Using the Lift Blocks is optional. The Lift comes with four Lift Blocks.



Not necessarily to scale. Not all components shown. The SP-7XL **F** does not have any Ramps.

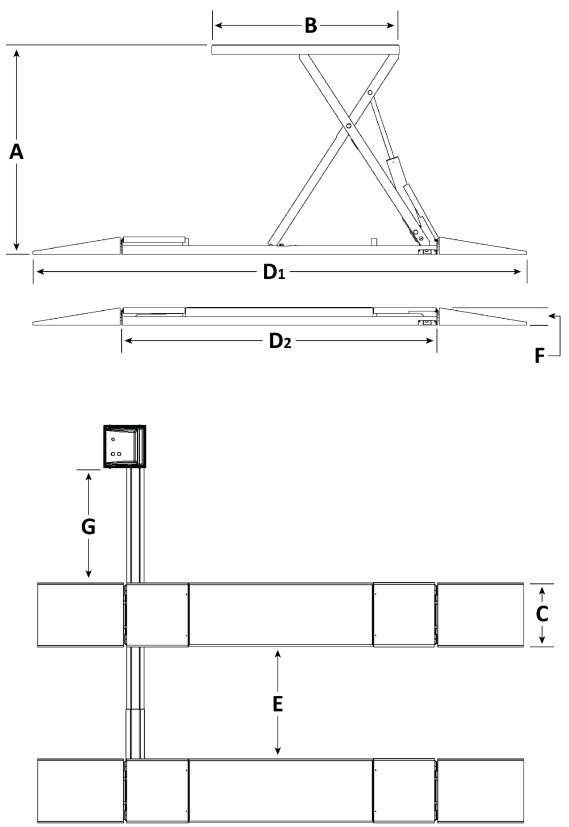
Frequently Asked Questions

Question: How much weight can the SP-7XL/F raise?

Answer: The SP-7XL/F can raise Vehicles up to 7,000 pounds (3,175 kg).

- Q: The SP-7XLF is described as "flush mount", what does that mean?
- A: It means the Bases of the SP-7XLF are installed below the surface of the Concrete, in Concrete Cutouts. The tops of the Platforms are flush with the Concrete floor, so Vehicles just drive straight on—no ramps required. Sufficient Concrete depth is required *under* the Concrete Cutout.
- Q: The SP-7XL/F is called a "full-rise" Lift, what does that mean?
- A: It means that the SP-7XL/F can raise a Vehicle almost six feet off the ground, which is higher than most other scissor Lifts. Additionally, the SP-7XL/F has eight Safety Lock positions, which means you can lock the Lift at the height most convenient for what you are doing.
- Q: Can the SP-7XL/F be installed outside?
- A: No. The SP-7XL/F is approved for indoor installation and use only. *Outdoor installation is prohibited*. If you are still considering installing your Lift outdoors, contact BendPak Customer Service: on the web at **bendpak.com/support**, via email **techsupport@bendpak.com**, or by phone (800) 253-2363.
- **Q**: Can I put the Console on either side of the SP-7XL/F?
- A: Yes. The Hydraulic Lines that come with the SP-7XL/F are long enough to support the Console being up to ~40 inches (998 mm) away from a Base 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. We strongly recommend *against* trying to raise a Vehicle that is heavier than the rated capacity of your Lift. If you do, you void your warranty, you could damage the Lift and/or the Vehicle you are raising, and you jeopardize the safety of people near the Lift.
- Q: How many Safety Lock positions does my Lift have?
- A: Eight. This gives you multiple heights to which you can raise the Lift, so it is easy to set it to the right height for what you are doing.
- Q: What do the Safety Locks do?
- A: Safety Locks use gravity and intelligent engineering to hold the Platforms up, once the Safety Locks are engaged. Even if the Lift loses power or the Hydraulic Lines are cut, the Platforms stay where they are if they were left engaged on a Safety Lock. *Only leave your Lift either fully lowered or engaged on a Safety Lock!*
- **Q**: Which end of the SP-7XL/F is the "front"?
- A: There is no front or back. You can drive Vehicles onto and off of the Lift in either direction.
- **Q**: The SP-7XL/F is described as "frame-engaging", what does that mean?
- A: It means the Platforms (actually the Rubber Blocks on the Platforms) contact the frame of the Vehicle to raise it. Put another way, the Vehicle is *not* raised by its wheels.
- Q: The space between the Platforms is too wide for my small Vehicle. What can I do?
- A: You can purchase the optional Lift Arm Kit. The Lift Arms extend into the space between the Platforms, providing additional options for smaller Vehicles.

Specifications



SP-7XL shown. The SP-7XL **F** does not have Ramps or Covers.

Model	SP-7XL	SP-7XLF
Style	Surface mount	Flush mount
Lifting capacity	7,000 lbs. / 3,175 kg	7,000 lbs. / 3,175 kg
A Maximum height raised	70" / 1,781 mm	64" / 1,626 mm
B Single Platform length	62.5" / 1,590 mm	62.5" / 1,590 mm
C Single Platform width	22" (554 mm)	22" (554 mm)
D Overall length	D1 : 165" / 4,190 mm (includes Ramps)	D2 : 106" / 2,692 mm (no Ramps)
E Distance between Platforms	38 to 44" / 964 to 1,114 mm	38 to 44" / 964 to 1,114 mm
F Lowered height	6" / 152 mm	0" / 0 mm
G Max distance to Console*	Up to 40" / 998 mm	Up to 40" / 998 mm
Lifting time	~45 seconds	~45 seconds
Motor	220 VAC, 50/60 Hz, 1 Ph	220 VAC, 50/60 Hz, 1 Ph

* With supplied Hydraulic Lines.

Specifications subject to change without notice.

Installation Checklist

Following are the steps needed to install a SP-7XL/F Lift. Perform them in the order shown.

Important: If you are installing a SP-7XLF Flush-Mount Lift, consult a Concrete Specialist about creating the Concrete Cutouts *well before starting the installation*.

- □ 1. Review the installation Safety Rules.
- \Box 2. Plan for Electrical Work.
- \Box 3. Make sure you have the necessary Tools.
- \Box 4. Select the Installation Site.
- \Box 5. Make sure there is adequate clearance on all sides of the Lift.
- □ 6. Create the Concrete Cutouts (SP-7XL**F** only).
- 7. Create Chalk Line Guides.
- \Box 8. Lift the Platforms off the Bases.
- 9. Anchor the Bases.
- \Box 10. Set up the Console and attach the Power Unit.
- 11. Connect the Hydraulic Lines.
- □ 12. About Compression Fittings and Tubing.
- \Box 13. Connect the Air Lines.
- \Box 14. Connect the Power Unit.
- □ 15. Install a Power Disconnect Switch.
- □ 16. Install a Thermal Disconnect Switch.
- □ 17. Test the Lift.
- 18. Add the Ramps (SP-7XL only).
- 19. Review the Final Checklist.
- \Box 20. Leave the Manual for the owner/operator.

Installation

This section describes how to install your SP-7XL/F. Perform the steps in the order listed.

▲ WARNING Use only 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, extension 191.

The SP-7XL/F is supplied with installation instructions and concrete fasteners that meet the criteria set by the American National Standard "Automotive Lifts – Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2011.

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 Shop 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 (R2015) *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing your Lift.

Only fully trained personnel should be involved in installing this equipment. *Pay attention at all times.* Use appropriate tools and equipment. Stay clear of moving parts.

WARNING You must wear protective equipment *at all times* during the installation: leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection.

Electrical Work

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

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

The Electrician needs to:

- **Connect the Power Unit to a power source**. This is generally done near the end of the installation. Note that installing the Power Unit and connecting the Power Unit are separate procedures; the Electrician *must* do the *connecting*, anyone can *install* the Power Unit. The Electrician needs to provide a power cable with an appropriate plug.
- 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 need 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: 1/2", 15/16" 1 1/8"
- Socket and ratchet set, 1 1/8"
- Medium crescent wrench
- Chalk line
- Medium flat screwdriver
- Tape measure
- Forklift or Shop Crane

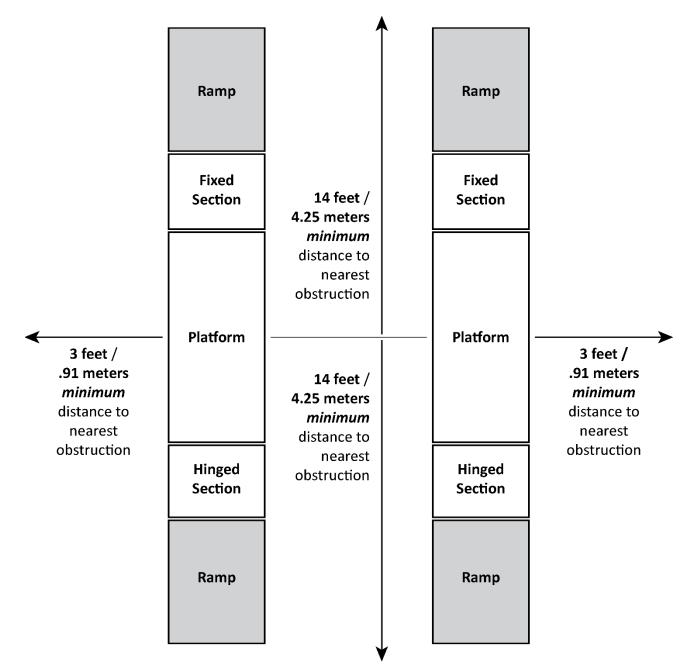
Select a Site

Keep the following in mind when selecting a site for your SP-7XL/F:

- **Clearance**. You must have adequate space on all sides, plus enough space above for the Vehicles you will be raising. See **Clearance Around the Lift** for more information.
- Check for overhead obstructions. The site must be free of overhead obstructions.
- **Operator**. The operator at the Console *must* have a full, unobstructed view of the SP-7XL.
- **Console**. The Console must be positioned near the Lift; the Hydraulic Lines that come with the SP-7XL support up to 40 inches between the Lift and the Console.
- **Concrete specifications**. Do not install the Lift on cracked or defective Concrete. Make sure the Concrete is at least 4.25 inches 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 inches of Concrete *below the bottom of the Concrete Cutout*.
- **WARNING** Do not install the Lift on a surface with 3° of slope or more. A 3° degree 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**. You will need a 208 to 240 VAC power source available near the Console. Use a 25 amp or greater fuse for a 230 VAC, 1 phase circuit.
- **Operating temperature**. The Lift is designed to be used between temperatures of 41° to 104°F (5° to 40°C).
- **Outdoor installation**. The Lift *cannot* 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.
- Set up Chalk Line Guides. Create Chalk Line Guides to make sure the SP-7XL is set up correctly.

Clearance Around the Lift

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

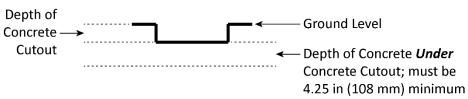


Prepare the Concrete Cutouts: SP-7XLF Only

Important: BendPak *strongly* recommends working with a Concrete Specialist to plan and create the Concrete Cutouts for your Flush-Mount Lift.

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

- **Concrete Cutouts**. The Bases/Platforms of a Flush-Mount Lift are installed in a recessed section of the floor, called a Concrete Cutout.
- **Depth of the Concrete Cutouts**. Concrete Cutouts must be a specific depth below floor level so that when the Lift is put down into the Concrete Cutout, the top of the Lift's Platforms are flush with the floor.
- **Concrete Curing Time**. Concrete Cutouts must be created in advance. They must cure for at least 28 days before they are strong enough to support Anchor Bolts.
- Floor Material. Concrete Cutouts must be created in a *Concrete* floor; no other surface (asphalt, dirt, anything else) is acceptable.
- **Decisions**. There are certain decisions you must make *before* creating your Concrete Cutouts: where the Lift is going to go, which side of the Lift the Console will go on, how far away from the Lift will the Console go, and how far apart the two Bases will be. The decisions you make need to be incorporated into the plan you create with your Concrete Specialist.
- **Cutout Size**. Concrete Cutouts need to be slightly larger than the Bases. The values listed at the end of this section add about .5 inch (~12.75 mm) on all four sides to the Length and Width of the Bases.
- **Concrete Depth**. The Concrete depth *below the bottom* of the Concrete Cutouts must be deep enough for the Anchor Bolts; a minimum of 4.25 inches.



• Air and Hydraulic Lines: Because the Bases are recessed, the Air and Hydraulic Lines start out recessed as well. Your plans for the Concrete Cutouts need to account for how these Lines will be routed to the Console.

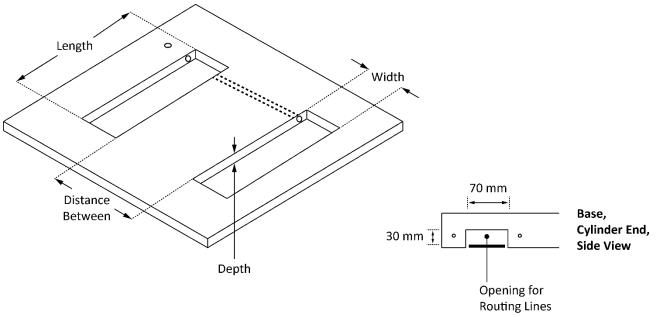
Some people use PVC tubing to create a hole between the two Bases when creating their Concrete Cutouts. This allows the Air and Hydraulic Lines to be routed between the two Bases.

Some people also use PVC tubing to create a hole between the Console and the Base closest to the Console. This allows the Air and Hydraulic Lines to be routed between the Console and the closest Base.

Both Bases come with openings for routing the Hydraulic and Air Lines already created; there are two per Base, both on the Cylinder end. You are not required to use all four of these openings.

- Lift Location. Use care when selecting a location for a Flush-Mount Lift. Once you create your Concrete Cutouts, the Lift location is fixed.
- **Console Location**. The Console can go on either side of the Lift. The supplied Hydraulic Lines support a specific distance away from the closest Base. Remember to create a path through the Concrete towards the Console for routing the Hydraulic and Air Lines.
- **Distance Between Bases**. The Bases can be a variable distance apart, allowing you to pick the best width for the Vehicles you will be lifting.

• **Diagram**. You and your Concrete Specialist can use the following diagram as a guide for your Concrete Cutouts.



Drawing not necessarily to scale. Not all components shown. There must be 4.25 inches of Concrete **below** the bottom of the Concrete Cutouts. In this drawing, the Console would be on the left (next to where the Length is shown).

The Flush-Mount Lift settings for the SP-7XLF are:

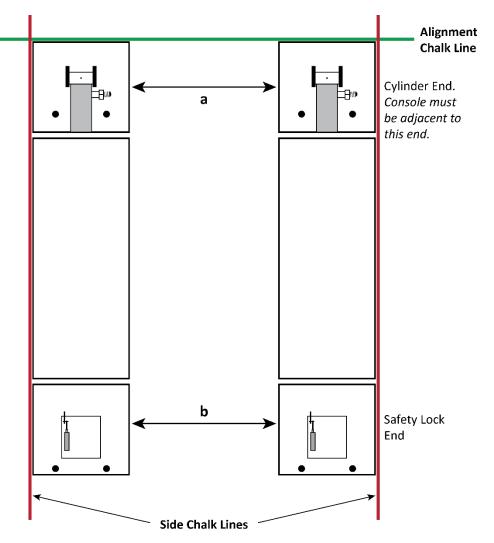
- Length. The Length of each SP-7XLF Base is 106 inches / 2,692 mm; add 1 inch / 25 mm to get ~107 inches / 2,717 mm.
- Width. The Width of each SP-7XLF Frame is 22 inches / 554 mm; add 1 inch / 25 mm to get ~23 inches / 579 mm.
- Depth. The Lowered height of each SP-7XLF Frame is 6 inches / 152 mm. You do *not* add an extra inch to this value.
- Distance Between. The two SP-7XLF Bases can be from 38 to 44 inches / 964 to 1,114 mm apart. You do *not* add an extra inch to this value.
 - **Important**: If you are installing the SP-7XLF over a pit, *do not* set the Distance Between to the width of the pit if the width of the pit is less than 38 inches or more than 44 inches. The two Bases must be from 38 to 44 inches apart, even if installed over a pit.
- Distance to Console. The supplied hosing allows the Console to be up to 40 inches / 998 mm from the nearest Base. You do *not* add an extra inch to this value.

Create Chalk Line Guides

Use Chalk Line Guides to make sure the Frames are parallel and in the desired location.

To add Chalk Line Guides:

- 1. Decide where you want to locate the Lift.
- 2. Create an Alignment Chalk Line where you want one end of the SP-7XL.



Drawing not necessarily to scale. Not all components shown. Make sure the Console is located adjacent to the Cylinder End of the Lift, not the Safety Lock End.

Make the Alignment Chalk Line longer than the width of the two SP-7XL Frames and the space between them.

- 3. Create two additional Side Chalk Lines: they need to be perpendicular to the Alignment Chalk Line, parallel to each other, and the correct distance apart (38" to 44" / 964 mm to 1,114 mm plus the width of the two Frames, 44" / 1108 mm).
- 4. Move each Frame into position, into the corner created by the Alignment Chalk Line and the Side Chalk Line.

The two Frames are interchangeable; it does not matter which one goes on which side.

Make sure, however, that the Console is located adjacent to the Cylinder End of the Lift.

- 5. Measure the distance between the two Frames at points **a** and **b**; they need to be the same distance apart at both ends.
- **Important**: If **a** and **b** are not the same, adjust the Frames to make them the same; **a** and **b** *must* be the same distance apart and parallel to each other.
- 6. When the Frames are in the correct location, they can be anchored into place.

Lift the Platforms Off the Bases

You must raise the SP-7XL/F Platforms off of the Bases in order to route and connect the Air Lines.

Raising the Platforms off the Bases gives you room to access the tubes for the Air Lines.

When you raise the SP-7XL, be sure to leave it engaged on a Safety Lock.

There are two common methods for lifting the SP-7XL Platforms off the Bases. Choose the method that works the best for you:

• **Human powered**: Once the Platforms are in position, put one person on each end of one Platform, use Crowbars to lift the Platforms off of their Bases, slip an industrial-strength strap (sling) under each end of the Platform, then use the straps to raise the Platform. Be sure to hold down the Base while you raise the Platform.

When the Platform gets above the desired Safety Lock position, lower it back down to engage it on the Safety Lock. Do not raise the Platform a random distance; you *must* leave it on a Safety Lock.

- **Important**: BendPak recommends raising the Platforms at least halfway up, as this gives you more room under the Platform to install the Anchor Bolts and connect the Hydraulic and Air Lines.
- **Machine powered**: Once the Platforms are in position, put one person on each end of one Platform, use Crowbars to lift the Platforms off of their Bases, slip an industrial-strength strap (sling) under each end of the Platform, then use a Shop Crane or Forklift to raise the Platform using the straps. Be sure to hold down the Base while you raise the Platform.

When the Platform gets above the desired Safety Lock position, lower it back down to engage it on the Safety Lock. Do not raise the Platform a random distance; you *must* leave it on a Safety Lock.

Anchor the Bases

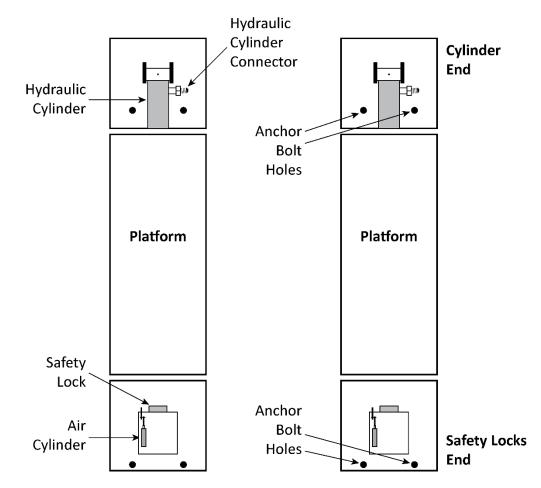
Both Bases have four holes in them for anchoring the Base.

Anchor Bolt specifications are:

- Length: 4.75 inches
- Diameter: 3/4 inch
- Effective embedment depth: 2.75 inches, minimum
- Anchor torque: 85 95 pound feet (not less than 80 or more than 105)

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.

The following drawing shows the locations of the Anchor Bolt holes in each SP-7XL/F Base.



Drawing not necessarily to scale. Not all components shown. Fixed and Hinged Sections shown removed, for clarity.

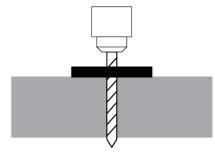
To anchor your SP-7XL Bases:

1. Make sure the Bases are in the correct location.

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.

- 2. Using the holes in the Bases as guides, drill the holes for the Anchor Bolts.
 - **Note:** If you prefer, you can mark the Anchor Bolt hole locations, move the Frames out of the way, drill the holes, and then move the Frames back into position.

Go in straight; do not let the drill wobble.

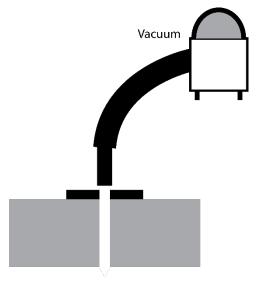


Use a carbide bit (conforming to ANSI B212.15-1994).

The diameter of the drill bit **must** be the same as the diameter of the Anchor Bolt. So if you are using a $\frac{3}{4}$ inch diameter Anchor Bolt, for example, use a $\frac{3}{4}$ inch diameter drill bit.

3. Use a vacuum to thoroughly clean each hole.

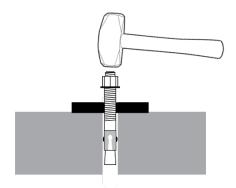
If a vacuum is not available, use a wire brush, hand pump, or compressed air.



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

4. Make sure the Washer and Nut are in place (you want approximately 1/4 inch to 1/3 inch — 6 to 8 mm — of thread visible above the nut), 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 get the Expansion Sleeve through the Base and down into the hole.



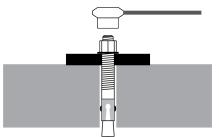
Even using a hammer or mallet, the Anchor Bolt should only go into the hole part of the way; this is normal. If the Anchor Bolt goes all the way in with little or no resistance, the hole is too wide.

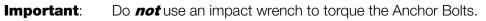
Once past the hole in the Base, the Anchor Bolt eventually stops going down into the hole as the Expansion Sleeve contacts the sides of the hole; this is normal.

5. 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.

6. 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.





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 comes unassembled from the factory.

Note: Some Consoles are occasionally shipped assembled.

The included Hydraulic Lines require the Console to be within 40 inches of the Lift.

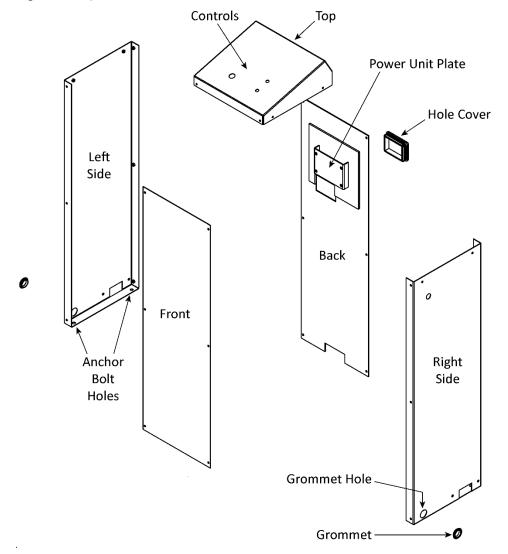
-`́́́́́)- _{Tip}

If you want to set up the Console further than 40 inches from your Lift, you will need to get Hydraulic Lines that are long enough to reach the Lift from the desired location. You may be able to obtain these lines from the local hydraulics shop, once you know how long you need them. You will also need longer 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 pretty permanent decision. Delaying the anchoring gives you a chance to evaluate how well you like the 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 want to anchor the Console into place, return to this section and follow the instructions starting with Step 9.



To assemble the Console and attach the Power Unit:

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 Lines, the Console can go on either side of the Lift, up to 40 inches 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 Hole Cover into the Hole on the Back, just under the Power Unit Plate.

You can use this Hole to route the Hydraulic Lines, if you like.

5. 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 Top of the Console.

- 6. Remove the Power Unit from its packing material.
- 7. 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.

- 8. Attach the Front of the Console, then the Top.
 - **Important**: All of the components of the Console are now in place, but they are not all connected. To connect the Hydraulic Lines to the Power Unit and the Air Line to the Top of the Console, you are going to need to remove both the Top of the Console and the Front. Making these connections is described later in the installation procedure.
- 9. If you are ready to anchor the Console in place, find the holes in the bottom of the Left and Right side pieces (on the inside). The Anchor Bolts go into these holes.
- 10. Using the holes in the base as a guide, drill the 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 B212.15-1994).

11. 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.

- 12. Insert an Anchor Bolt with Washer into each hole, then tap it down into the hole.
- 13. Turn the Anchor Bolt *clockwise* to the recommended installation torque, 80 110 foot pounds, using a Torque Wrench.

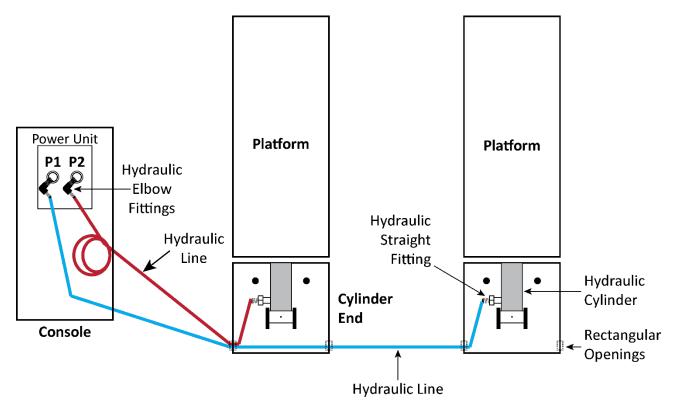
Connect the Hydraulic Lines

Hydraulic Lines provide Hydraulic Fluid to the Hydraulic Cylinders, where it is used to raise the Platforms.

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

The SP-7XL comes with two Hydraulic Lines, both of which go from one of the two Hydraulic Power Out connectors on the Power Unit to one of the Hydraulic Cylinders.

The following drawing shows the general arrangement of how Hydraulic Lines are routed from the Power Unit to the Hydraulic Cylinders. The Console is on the left in this drawing.

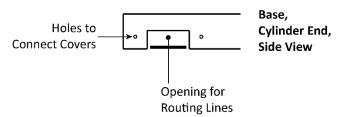


Drawing not to scale. Some components not shown, other components exaggerated for clarity. Fittings shown not connected for clarity.

To connect the Hydraulic Lines:

- 1. Locate two Hydraulic Elbow Fittings (for the Power Unit), two Hydraulic Lines (both 14 feet / 4270 mm long), and two Hydraulic Straight Fittings (for the Hydraulic Cylinders).
- 2. Attach a Hydraulic Elbow Fitting to each of the two Hydraulic Power Out connectors on the Power Unit, labeled P1 and P2.
- 3. Remove the Shipping Plugs from the Hydraulic Line Port at the bottom of each Hydraulic Cylinder.
- 4. Attach an Hydraulic Straight Fitting to each of the Hydraulic Line Ports.
- 5. Attach one of the Hydraulic Lines to one of the Hydraulic Elbow Fittings on the Power Unit, then attach the other end of the same Hydraulic Line to a Hydraulic Straight Fitting at the bottom of one of the Hydraulic Cylinders.

Be sure to route the Hydraulic Line through the appropriate rectangular openings in the Cylinder End of the both Bases.



Note that both Hydraulic Lines and the Air Line will go through these openings.

If you are attaching the Hydraulic Line that goes to the closest Hydraulic Cylinder, there will be extra length; just coil up the extra length and leave it inside the Console.

Finger tighten the connections.

6. Attach the second Hydraulic Line to the other Hydraulic Elbow Fitting on the Power Unit, then attach the other end to the Hydraulic Straight Fitting at the bottom of the other Hydraulic Cylinder.

Finger tighten the connections.

7. Make sure both Hydraulic Lines are correctly routed and do not have any kinks, then use appropriate tools to *securely* tighten the finger-tightened connections.

Working with Compression Fittings and Tubing

Your Lift comes with a roll of 1/4 inch, black, polyethylene Tubing (also called Poly-Flo® Tubing) that is used with Compression Fittings to attach to the Air Cylinders and the Air Assist Connectors.

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

The components involved with Compression Fittings include:

- 1/4 inch, black, polyethylene Tubing. The Air 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 Air 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 three Tee Compression Fittings.
- **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 can only be tightened once*. When you tighten the Nut on the Threads, the Ferrule gets compressed; it literally changes shape and *cannot* 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 further over the Rod until it stops.
- 5. Slide the Ferrule and the Nut back to the Threads on the Fitting.

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

6. Tighten the Nut.

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

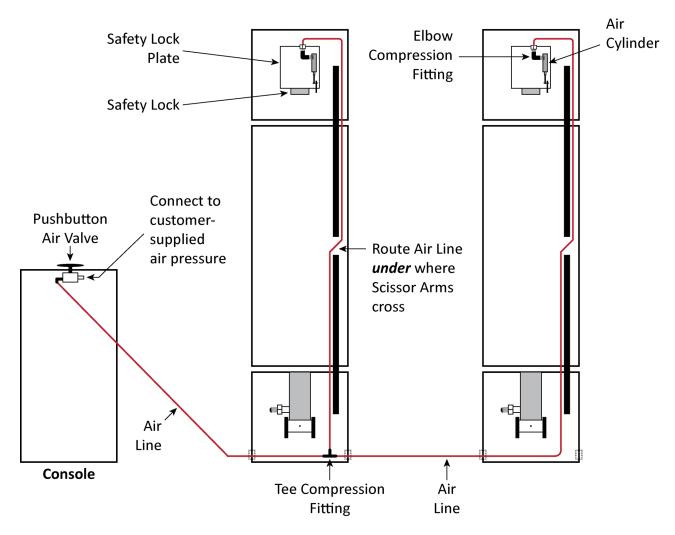
Connect the Air Line

The SP-7XL uses air pressure to move the Platforms off their Safety Locks, so that the Platforms can be lowered.

Important: It is the responsibility of the SP-7XL owner to provide an air pressure supply (minimum 30 psi / 3 CFM, regulated to a maximum of 125 psi).

The air pressure supply is distributed to the Air Cylinders using 1/4 inch, black, polyethylene Tubing (also called Poly-Flo® Tubing), supplied with the Lift. You need to cut the tubing into appropriate lengths. You should need three tubing sections (see drawing below).

The following drawing shows how you can route air from the Console to the Air Cylinders.

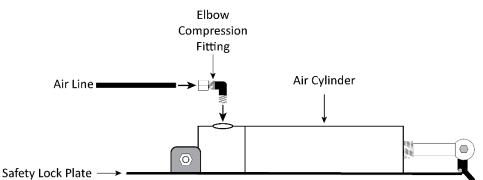


Drawing not to scale. Some components now shown, other components exaggerated for clarity.

To connect the Air Line:

Two Elbow Compression Fittings come connected to the top of the Air Cylinders.

1. If the two Elbow Compression Fittings are **not** already connected to the top of the Air Cylinders, connect them now.

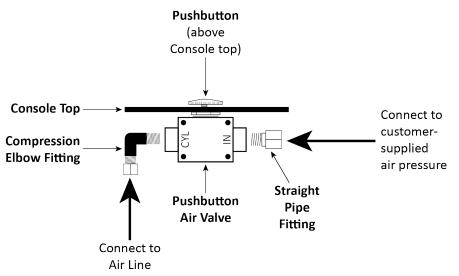


- 2. Locate the roll of 1/4 inch, black, polyethylene Tubing and the Tee Compression Fitting.
- 3. Cut the tubing into three sections of appropriate lengths for your installation. See the drawing on the previous page for additional information.



BendPak recommends planning out the path of the Air Line and noting appropriate lengths before you start cutting the tubing.

- 4. Connect the three tubing sections and Tee Compression Fitting to the Compression Fittings on the Air Cylinders.
- 5. Locate an Elbow Compression Fitting.
- 6. On the underside of the Console Top, attach the male end of a Compression Elbow Fitting to the CYL connector on the Pushbutton Air Valve, then connect the final Air Line tubing section to the compression end of the Elbow Compression Fitting you just installed.
- 7. Also on the underside of the Console Top, attach the male end of a Straight Pipe Fitting to the IN connector on the underside of the Pushbutton Air Valve, then connect the customer-supplied air pressure to the other end of the Straight Pipe Fitting.



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

Connect the Power Unit

The Power Unit comes fully assembled. You need to attach it to the back of the Console (described in **Set Up the Console and Attach the Power Unit**) and then make additional connections, described in this section.

The Power Unit for your Lift is 208-240 VAC, 50/60 Hz, 1 phase. The Hydraulic Fluid Reservoir holds 13.25 liters (3.5 gallons) of fluid.

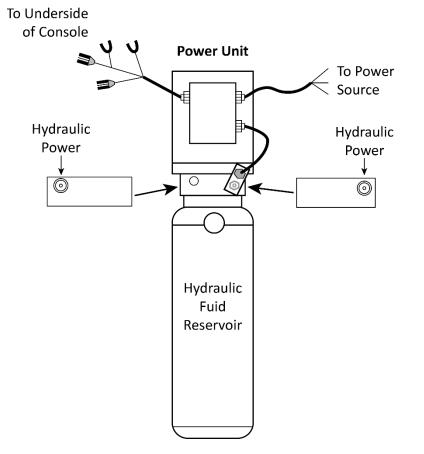
DANGER All wiring *must* be performed by a licensed, certified Electrician.

CAUTION The Power Unit's motor is **not** thermally protected.

The Power Unit has multiple connections:

- **Hydraulic Lines**. The Lift has two. They both connect to the Power Unit on one of its two Hydraulic Power connectors. *They should already be connected.*
- Console Buttons. Wiring on the left side of the Power Unit, see below, connects to the underside of the top of the Console to enable the **Raise** and **Lower** buttons. (Safety Lock **Release** is also on the top of the Console, but it is not connected to the Power Unit.)
- **Power Source**. The Power Unit connects to an appropriate, incoming power source. A licensed, certified Electrician is *required* to make this connection.

The following drawing shows the Power Unit.



Drawing not necessarily to scale. Not all components shown. Your Power Unit may be slightly different.

To connect the Power Unit to the Underside of the Console:

- 1. Remove the Console Top and turn it over.
- 2. Connect the 1 and 5 wires with the Slide-*Under* Connectors to the NO and COM connections on the Raise Switch, per the drawing below.

Use a screwdriver to loosen the **NO** and **COM** screws, slide the Slide-Under Connector around the screw (but under the screw head), then tighten the screw.

> — Slide-*Under* Connector III — Slide-**On** Connector Raise Switch сом NO NC Ð Ø 0 1 5 Pushbutton Lower Air Valve Switch 1 - II) 3 Ô Console Power Source Wiring Side View of Wiring Lower Switch Power Unit

Underside of Console Top

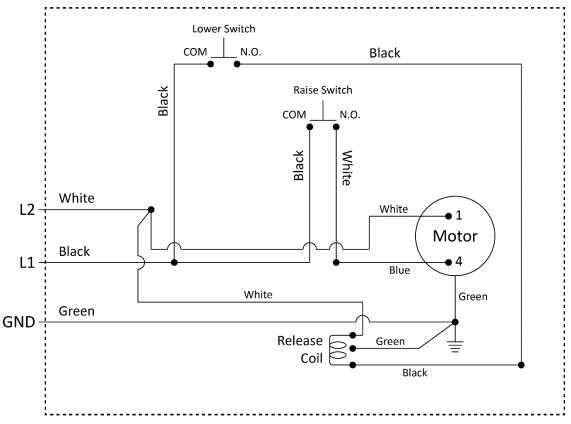
- 3. Connect the 1 and 3 wires with the Slide-*On* Connectors to the top and the side connectors on the Lower Switch, per the drawing above.
- 4. Turn the Console Top back over and attach it to the top of the Console.

To connect to a Power Source and add Hydraulic Fluid:

- 1. Remove the front cover of the Console if it is currently in place.
- 2. Have an Electrician connect an appropriate power source to the Power Unit.

The power cord and the plug are not supplied with the Lift; you must supply them.

▲ DANGER All wiring *must* be performed by a licensed, certified 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.



Important electrical information:

- Improper electrical installation can damage the Power Unit motor; this damage is not covered under warranty.
- Use a separate circuit breaker for each Power Unit.
- Protect each circuit with a time-delay fuse or circuit breaker. For a 115 VAC, 1 phase circuit, use a 15 amp or greater fuse. For a 230 VAC, 1 phase circuit, use a 25 amp or greater fuse.
- 3. Fill the Hydraulic Fluid reservoir.

The Power Unit's Hydraulic Fluid reservoir must be filled with Hydraulic Fluid or automatic transmission fluid **before** you begin operation. When you receive it, the reservoir is empty; the Power Unit will not work correctly until it is filled with approved fluids.

Approved Hydraulic Fluids are any general purpose ISO-32, ISO-46, or ISO-68 hydraulic oil or approved automatic transmission fluids such as Dexron III, Dexron VI, Mercon V, Mercon LV, Shell Tellus S4 / S3 / S2, or any synthetic multi-vehicle automatic transmission fluid.

MARNING Do not run your Power Unit without Hydraulic Fluid; you will damage it.

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.

DANGER Installing a Thermal Disconnect Switch *must* be performed by a licensed, certified 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.

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.

▲ DANGER Installing a Thermal Disconnect Switch *must* be performed by a licensed, certified 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.*

Test the Lift

Before putting your Lift into normal operation, we recommend raising and lowering it two or three times. This will help you get a feel for how to operate the controls and help get any residual air out of the Hydraulic System (sometimes called "bleeding" the system).



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. Press and hold **Raise**. The Platforms begin rising.
- 3. When the Platforms move past the first Safety Lock, release **Raise**. The Platforms stop rising.
- 4. Press and hold Safety Lock Release and Lower. The Platforms start lowering.
- 5. When the Platforms get to the ground, they will stop lowering; release **Safety Lock Release** and **Lower**.
- 6. Wait for one minute.
- **WARNING** The Power Unit is not a constant duty motor; *it cannot be run continuously*. If you run it too much, it will burn out.
- 7. Repeat the process, this time raising the Lift to the top Safety Lock and then lowering it back down to the ground.
- 8. 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.

If you continue to have issues, refer to **Troubleshooting** for assistance.

Add the Ramps

The SP-7XL comes with four Ramps: two per Frame. The SP-7XLF does not come with any Ramps, as it is flush mount.

You can attach the Ramps in any configuration you want; they are all the same, so it does not matter where you put them.

All four Ramps come with pins that fit into slots in the Base.

To put a Ramp into position, put the pins over the slots in the Base, then move them down into the slots. Double check to make sure they are correctly seated.

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.
- Make sure 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 to see that all Anchor Bolts are appropriately shimmed and correctly torqued.
- Make sure that all Safety Locks are cleared and free.

Leave the Manual with the Owner/Operator

Make sure to leave the *Installation and Operation Manual* with the owner/operator so that it is available for anyone who needs to read it.

Operation

This section describes how to operate your Lift.

A WARNING Use care around the Lift. When it is in a lowered position, be careful not to trip over it. When it is raised, be careful not to bang into the Ramps or the Frame. *When the Lift is moving, keep everyone at least 30 feet away* from it.

Lift Operation Safety

BendPak recommends referring to the ANSI/ALI ALIS Standard (R2015) *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing 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 techsupport@bendpak.com, visit bendpak.com/support, or call (800) 253-2363, x196.
- **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 in motion.
- **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, and has read the manual. Only the operator at the Console should be within 30 feet of the Lift when it is in motion.
- 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 a Safety Lock. 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 weight rating. Do not allow people inside a Vehicle you are going to raise. Make sure the Vehicle is not overbalanced on either end. Make sure you know and use the manufacturer's recommended Lifting Points for the Vehicle. Never raise just one side, one corner, or one end of a Vehicle.

The Console

Operation of the Lift is controlled via the Console.



The controls on the Console are:

- **Safety Lock Release** button. Uses air pressure to release engaged Safety Locks so the Platforms can lower.
- **Raise** button. Moves the Platforms up.
- Lower button. Moves the Platforms down.

Raising a Vehicle

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

To raise a vehicle:

1. Check the items listed in Lift Operation Safety.

If you find any issues, resolve them before raising the vehicle.

- 2. Make sure both Platforms are on the ground.
- 3. Drive the vehicle over the Platforms and situate it correctly.

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

4. Put the vehicle in park, put on the parking brake, and turn off the vehicle.

If the vehicle is a manual transmission, put it into first gear before turning it off.

You do not want the vehicle moving while it is raised.

- 5. Walk around the vehicle and make sure there are no obstructions or any other issues that will interfere with the raising of the Platforms.
- 6. At the Console, press and hold the **Raise** button.

7. Watch the Vehicle and the Platforms as they rise.

If the Lift becomes unstable or the vehicle starts moving, release the **Raise** button immediately.

8. When the Platforms are just past the desired height, release the **Raise** button.

The Lift stops rising.

9. Press the **Lower** button briefly to move the Platforms back down, which engages them on the most recently passed Safety Lock.

If you do not go far enough past the desired Safety Lock and then lower the Platforms, you may miss engaging on the Safety Lock. This means that if you continue to hold the **Lower** button, the Platforms will go all the way back to the ground.

If you miss the desired Safety Lock, press and hold **Raise** again and go somewhat further past the desired Safety Lock. Release **Raise**, then hold **Lower** again to lower the Platforms onto the desired Safety Lock.

About Safety Locks

Your lift comes with multiple Safety Lock positions; they serve two important functions:

- **Safety**. Safety Locks hold the SP-7XL Platforms in place. Once your SP-7XL is engaged on the desired Safety Lock, the weight of the Vehicle holds the Platforms in place. If the power goes out, the Safety Lock holds the SP-7XL Platforms, and anything on them, in place.
- Always leave your SP-7XL on a Safety Lock or fully lowered. 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 a Safety Lock.*
- Adjustable height. Having multiple Safety Locks means you can raise the Vehicle to just the right height for the work you are performing.

Lowering a Vehicle

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

To lower a vehicle:

1. Check the items listed in Lift Operation Safety.

If you find any issues, resolve them before lowering the vehicle.

2. At the Console, press and hold the **Raise** button for a second or two.

This moves the Platforms off the engaged Safety Lock.

- 3. Press and hold **Safety Lock Release**, then press and hold **Lower**.
- 4. When the Platforms are fully lowered, release both buttons.
- 5. Carefully drive the Vehicle off the Platforms.

Optional Lift Arm Kit

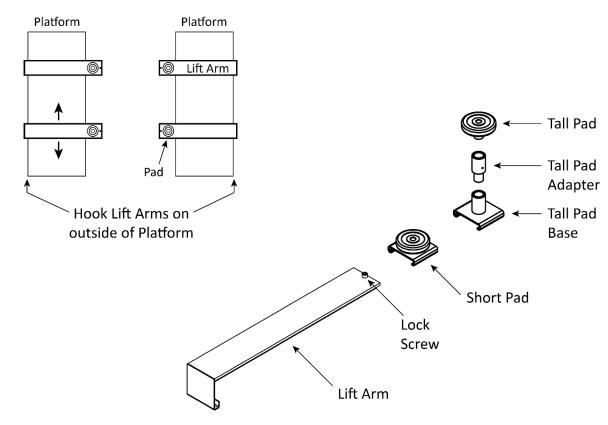
If you purchased the optional Lift Arm Kit, this section describes how to use it.

The Kit comes with four Lift Arms. To use the Lift Arms, you hook them on the outside edge of a Platform, put on the desired Pads, drive the Vehicle over the Lift, then position the Pads under the manufacturer's recommended Lifting Points for the Vehicle you are raising.

▲ WARNING The maximum Vehicle weight you can raise using all four Lift Arms (which must always be used four at a time) is 4,800 lb / 2,177 kg. Do **not** raise a Vehicle that weighs more than this; if you do, you could damage the Lift or the Vehicle, you put at risk everyone near the Lift, and you void your warranty. Each Lift Arm is rated for a *maximum* of 1,200 lb / 544 kg; **never** put more than this on one Lift Arm.

You position the Pads by sliding the Lift Arms along the outside edge of the Platform.

Each Lift Arm can be fitted with either a Short Pad or a Tall Pad/Adapter/Base combination, all of which come with the Lift Arm Kit.



Important: If you are going to be raising Vehicles with *body-on-frame* construction (compared to *unibody* construction), BendPak recommends purchasing 35 mm Frame Cradle Pads for safer lifting. These are available on the **BendPak website in the Car Lift**Accessories section. Make sure to order the **35 mm Pin Diameter** option.

If you get the Frame Cradle Pads, they replace the Tall Pad in the Tall Pad/Adapter/Base combination.

To switch between Short Pads and the Tall Pad/Adapter/Base, remove the Lock Screw on the end of the Lift Arm, remove the current Pad, slide on the desired Pad, and then replace the Lock Screw.

If you are using the Tall Pad/Adapter/Base combination, you can use it with or without the Adapter.

Maintenance

▲ DANGER Before performing any maintenance, make sure 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.

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**: Make sure 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 the grease fittings. We recommend using white lithium grease or similar.
- Monthly: Check the Power Unit's Hydraulic Fluid levels. Refill if low.
- **Every two months**: Check all Anchor Bolts to make sure they are tight. If not, tighten them.

WARNING: Do not operate your Lift if you find issues; instead, take the lift out of service, then contact your dealer, email techsupport@bendpak.com, visit bendpak.com/support, or call (800) 253-2363, extension 196.

Troubleshooting

This section describes how to troubleshoot your Lift.

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

Important:	All repair work <i>must</i> be done by qualified personnel.
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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 Lines 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, approved Hydraulic Fluids, such as Dexron III, Dexron VI, Mercon V, Mercon LV, Shell Tellus S4 / S3 / S2, or comparable.
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 is being pushed back into the reservoir, lowering the Platforms). <i>Only</i> <i>leave the Lift either fully lowered or engaged on a Safety Lock.</i>

If you continue to have problems with your Lift, contact your dealer, visit **bendpak.com/support**, email **techsupport@bendpak.com**, or call **(800) 253-2363**, extension 196.

Labels



SERIAL NUMBE

UPC

WARRANTY VOID IF DATA PLATE IS REMOVED

EHC

PN 590595

VOLTAGE

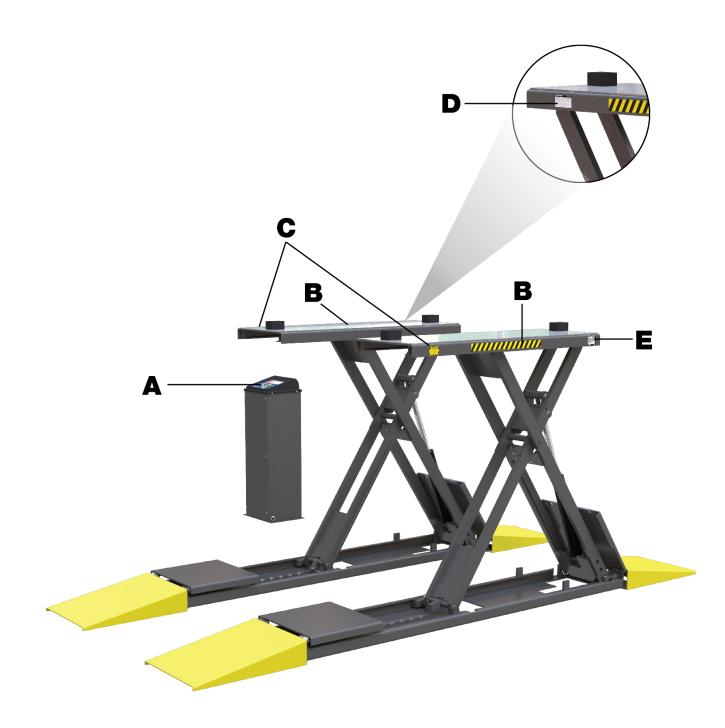
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380-415V, 50-60 Hz, 3 Ph 208-440V, 50-60 Hz, 3 Ph DANGER!

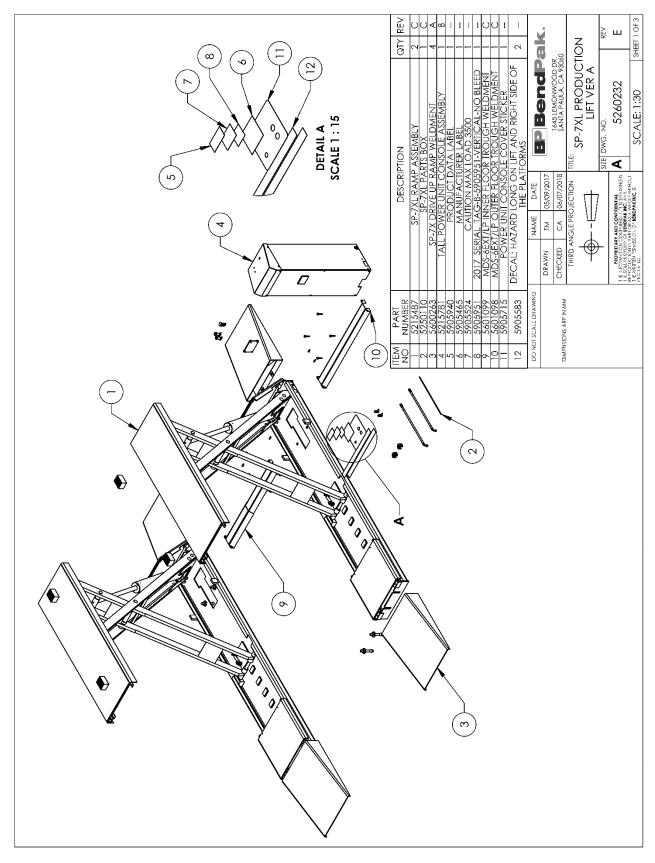
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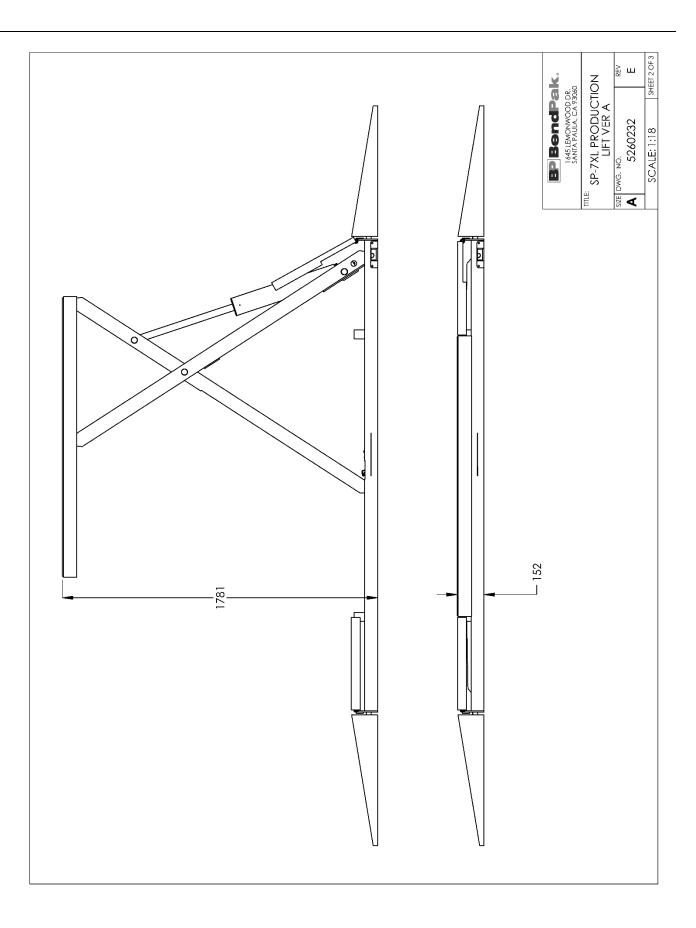
SANTA PAULA, CA USA WWW.BENDPAK.COM

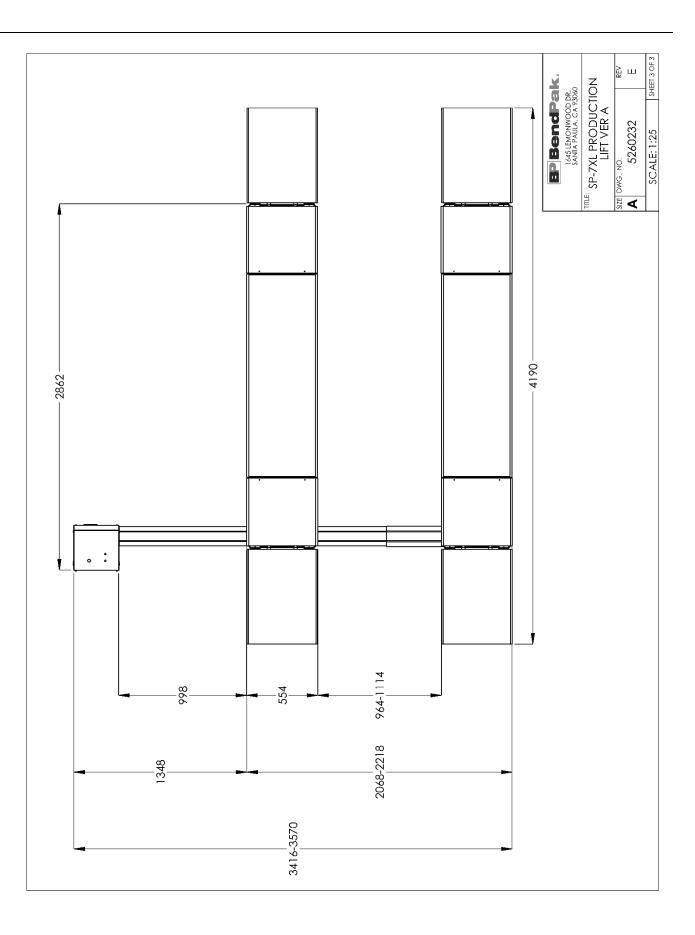
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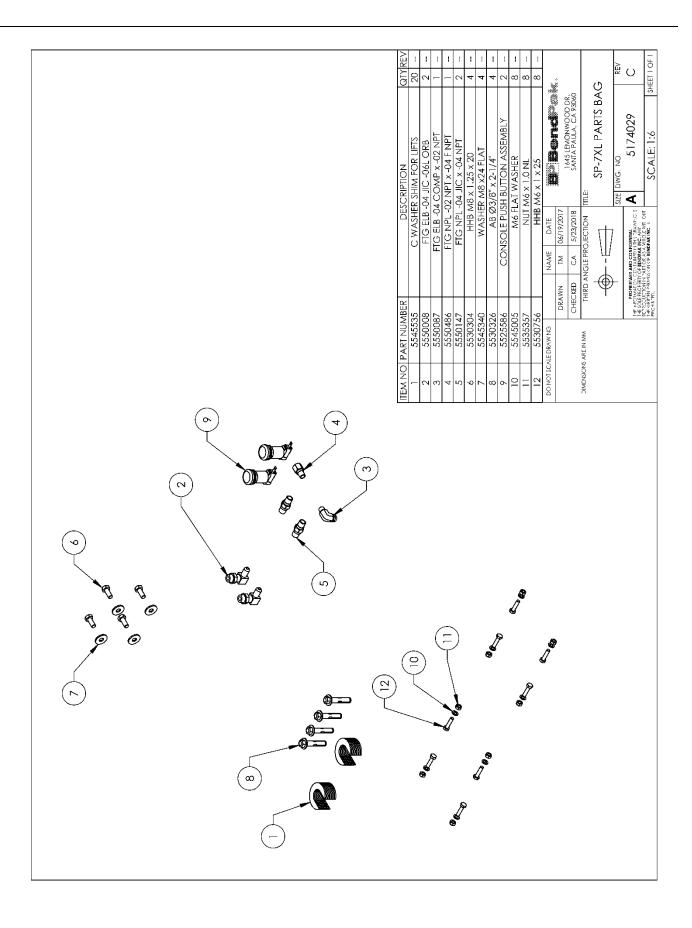


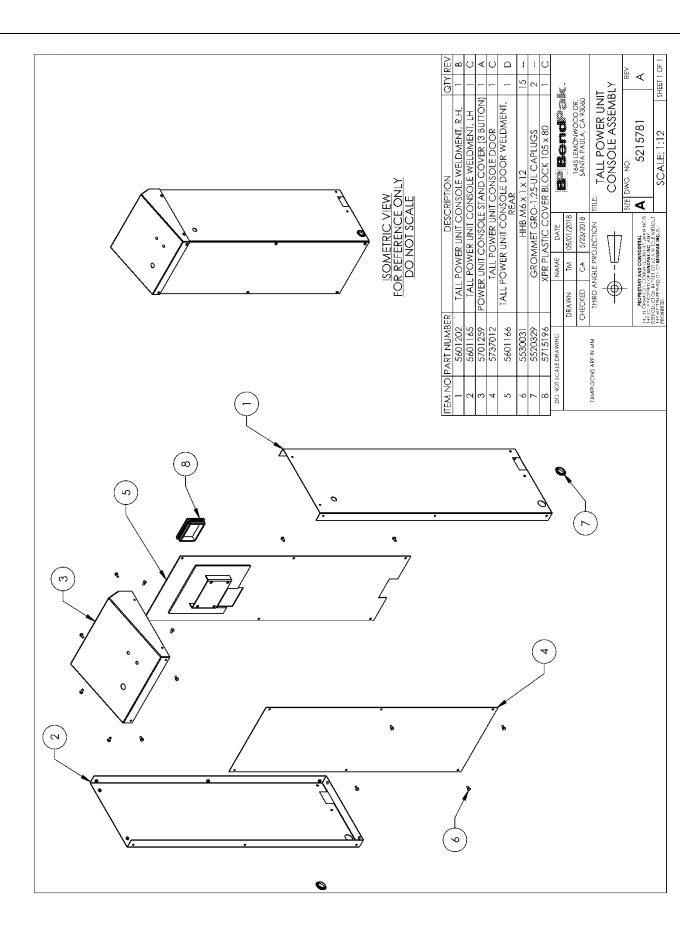
Parts Diagrams

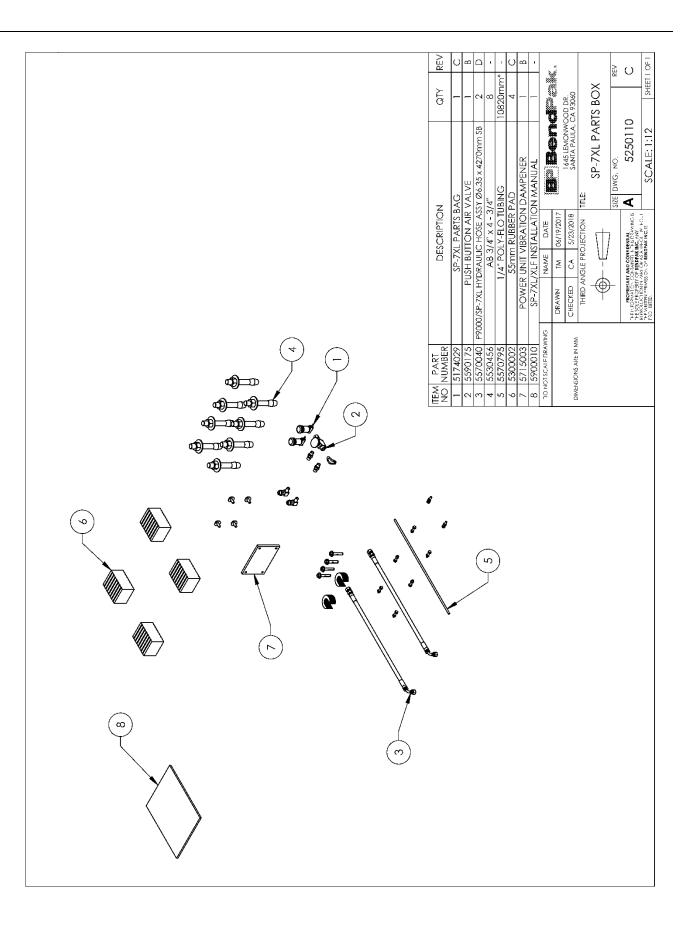


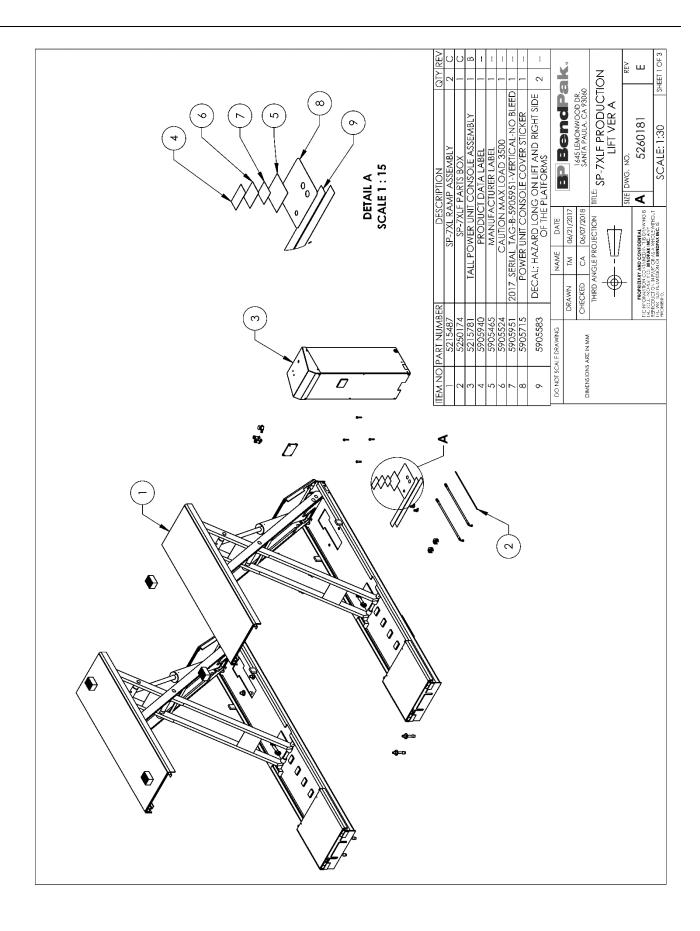


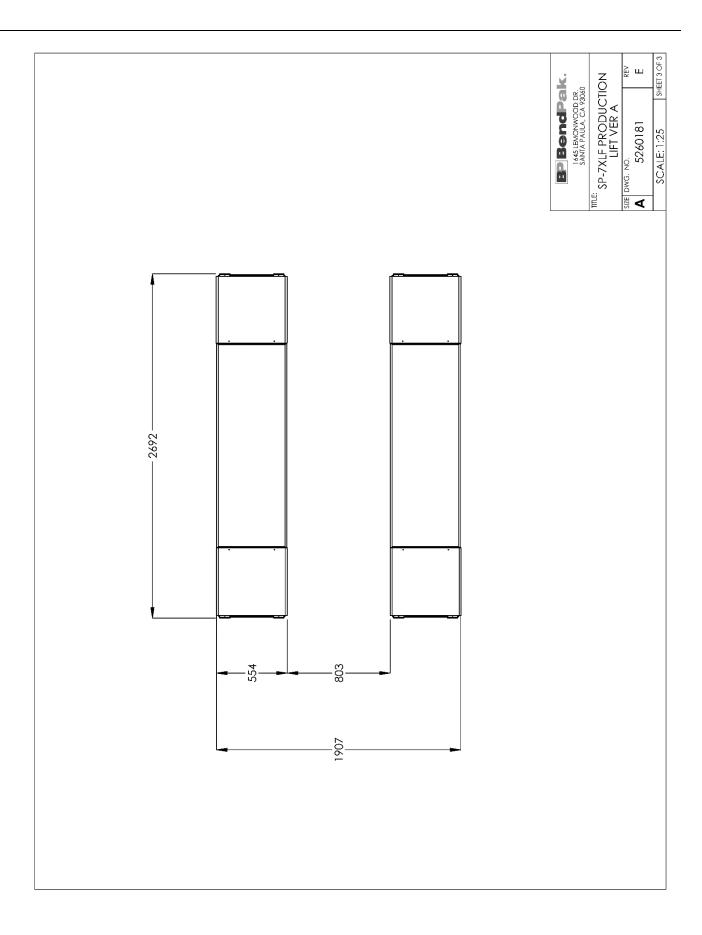


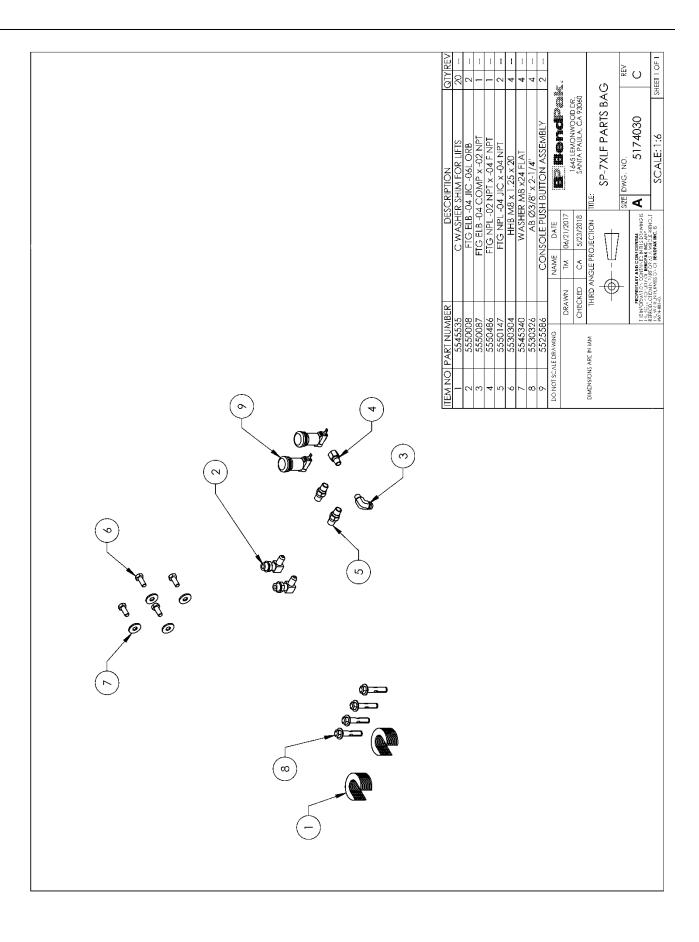












Automotive Lift Institute (ALI) Store

You probably checked the **ALI's Directory of Certified Lifts** (www.autolift.org/ali-directory-ofcertified-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!



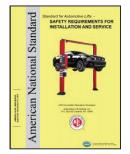
Lifting It Right Online Certificate Course. Make *sure* you and your people are lifting vehicles the right way.



KPA Online Training Subscription. Get all of your people up to speed on automotive industry topics.



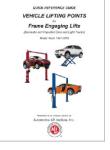
ANSI/ALI ALOIM Standard for Automotive Lifts. Safety Requirements for Operation, Inspection, and Maintenance.



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



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



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



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



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



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

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



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