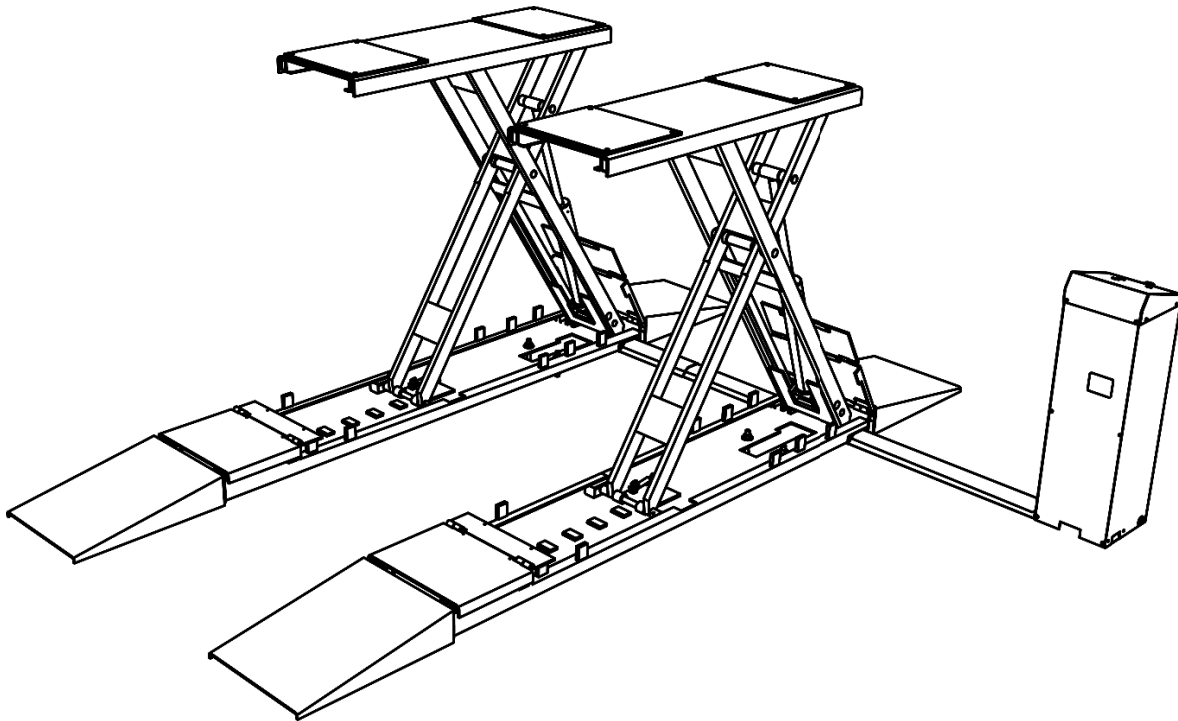


Full-Rise Scissor Lift Installation and Operation Manual

Manual P/N 5900010 — Manual Revision B1 — December 2022

Models: • SP-7XE • SP-7XEF



Model SP-7XE 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 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-7XE and SP-7XEF Full-Rise Scissor Lift, *Installation and Operation Manual*, Manual Part Number 5900010, Manual Revision B1, released December 2022.

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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. 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 or Ranger 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: _____

BP BendPak Santa Paula, CA USA www.bendpak.com	
MODEL NUMBER	
DESCRIPTION	
LIFT CAPACITY	DATE CODE
VOLTAGE	SERIAL NUMBER
<input type="checkbox"/> 110-120V, 50-60 Hz, 1 Ph	
<input type="checkbox"/> 208-240V, 50-60 Hz, 1 Ph	
<input type="checkbox"/> 380-415V, 50-60 Hz, 3 Ph	
<input type="checkbox"/> 208-440V, 50-60 Hz, 3 Ph	
	UPC
 DANGER! Disconnect Power Before Servicing	EAC
MADE IN CHINA	WARRANTY VOID IF DATA PLATE IS REMOVED
	PN 5905951

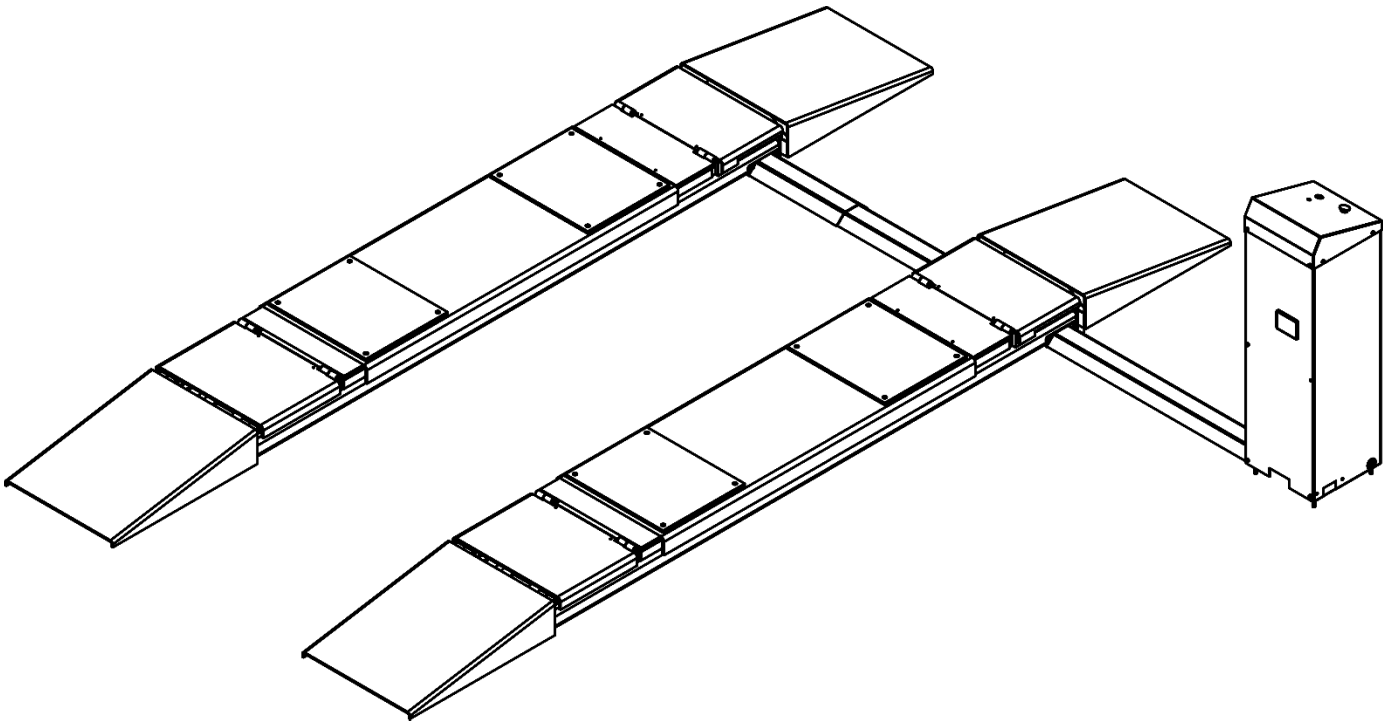


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Introduction

This manual describes the SP-7XE and SP-7XEF, 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 (SP-7XEF “flush mount”), frequently over a service pit. Flush mount models do not use Drive-up 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-7XE/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 support@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

Important Safety Instructions, save these instructions!

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.

 **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 other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

Important Safety Instructions!

Read and understand all safety warning procedures before operating the Lift:





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 qualified service personnel.
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 and accessories.
 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 both Lift platforms are secured on their 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. The SP-7XE and SP-7XEF are full-rise, frame-engaging, Scissor Lifts for servicing Vehicles. **Use it only for its intended purpose.** Improper use of this Lift could cause serious injury or death.
 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 Platforms. Clear the area immediately if a Vehicle is in danger of falling off the Lift.
 29. Do not make any modifications to the Lift. 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.
 33. 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.

Symbols

Following are the symbols used in this manual:

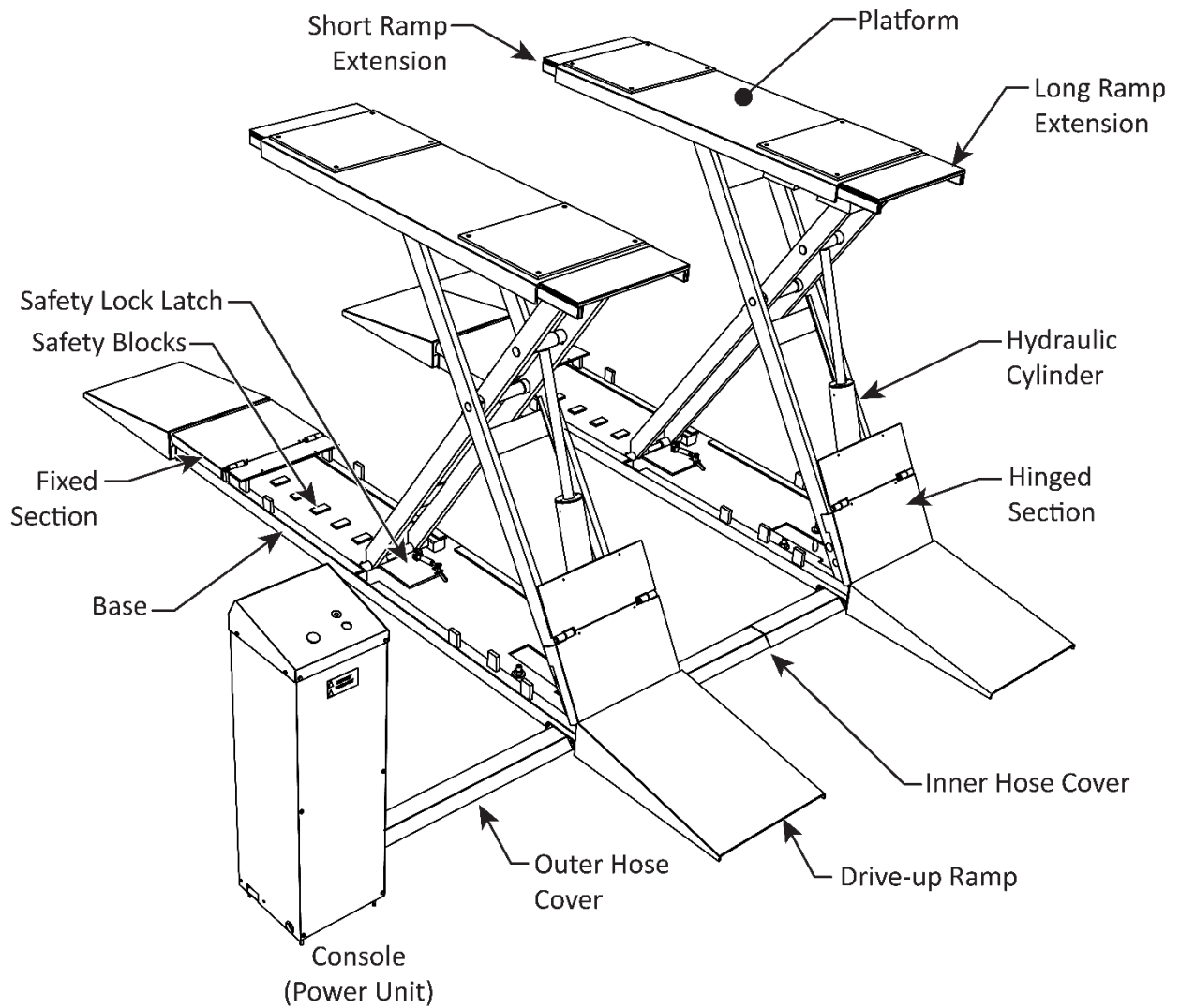
-  **DANGER** Calls attention to an immediate hazard that **will** result in injury or death.
-  **WARNING** Calls attention to a hazard or unsafe practice that **could** result in injury or death.
-  **CAUTION** Calls attention to a hazard or unsafe practice that could result in minor personal injury, 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



SP-7XE Model shown. SP-7EXF does not include Drive-up Ramps or Hose Covers.

SP-7XE Series Lift components include:

- **Console.** Hosts the controls for the Lift (on top) and the Power Unit (inside). The connections for the Hydraulic Hoses and the Air Lines connect to the Power Unit inside the Console.
- **Power Unit.** Provides Hydraulic pressure to the Hydraulic Cylinders, which they use to raise the Platforms. Housed inside the Console. Connects to an external power source and to the Lift Controls.
- **Hose Covers.** Cover the Air and Hydraulic Hoses.
- **Drive-up Ramps.** Used to drive on to or off the Platforms. Not included with the SP-7XEF.
- **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 Pads on the Platforms, make contact with the undercarriage of the Vehicle in order to raise and lower it.
- **Ramp Extensions.** Attaches to the Platforms, used for supporting Vehicles with long wheelbases.
- **Bases.** The bottoms of the Lift. They hold the Scissor Legs, Hydraulic Cylinders, Air Cylinders, Safety Locks, the holes for the Anchor Bolts. You anchor the Lift in place using the Anchor Bolts holes in each Base.
- **Frames.** The combination of a Platform and a Base is a Frame.
- **Scissor Legs.** The parts of the Lift that raise and lower, powered by the Hydraulic Cylinders.
- **Hydraulic Cylinders.** Push the Platforms up to raise a Vehicle, move down to lower a Vehicle.
- **Safety Locks.** Hold the Platforms in place and consist of a latching mechanism and welded blocks on each Lift Platform assembly. The SP-7XE/F has eight Safety Lock positions, which allow you to select the right Platform height for your needs.
- **Air Cylinders.** Part of the Safety Lock Mechanism, use pressurized air to move the Safety Lock Mechanism off the Safety Lock so you can lower the Lift. It is the user's responsibility to provide an air pressure supply (minimum 50 psi / 10 CFM, regulated to a *maximum* of 125 psi).
- **Lift Pads.** Rubber Pads that make contact with the Lifting Points on the Vehicle being raised. Using the Lift Pads is optional. The Lift comes with four Lift Pads.

Frequently Asked Questions

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

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

Q: The SP-7XEF is described as “flush mount”, what does that mean?

A: It means the Bases of the SP-7XEF 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 Drive-up Ramps are required. Sufficient Concrete depth is required **under** the Concrete Cutout. See **Prepare the Concrete Cutouts: SP-7XEF only** for more details.

Q: The SP-7XE/F is called a “Full-Rise” Lift, what does that mean?

A: It means that the SP-7XE/F can raise a Vehicle almost six feet off the ground, which is higher than most other Scissor Lifts. Additionally, the SP-7XE/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-7XE/F be installed outside?

A: No. The SP-7XE/F is approved for indoor installation and use only. **Outdoor installation is prohibited.**

Q: Can I put the Console on either side of the SP-7XE/F?

A: Yes. The Hydraulic Hoses that come with the SP-7XE/F are long enough to support the Console being up to 39.25 inches (999 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.** Do **not** attempt 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: 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 Hoses are cut, the Platforms stay where they are if they are engaged on a Safety Lock. **Only leave your Lift either fully lowered or engaged on a Safety Lock!**

Q: Which end of the SP-7XE/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-7XE/F is described as “frame-engaging”, what does that mean?

A: It means the Platforms (specifically 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.

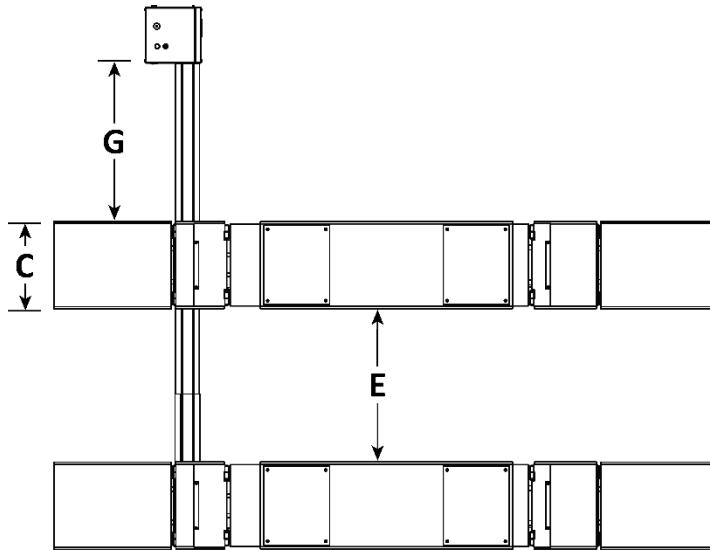
Q: The space between the Platforms is too wide for my small Vehicle. What can I do?

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.

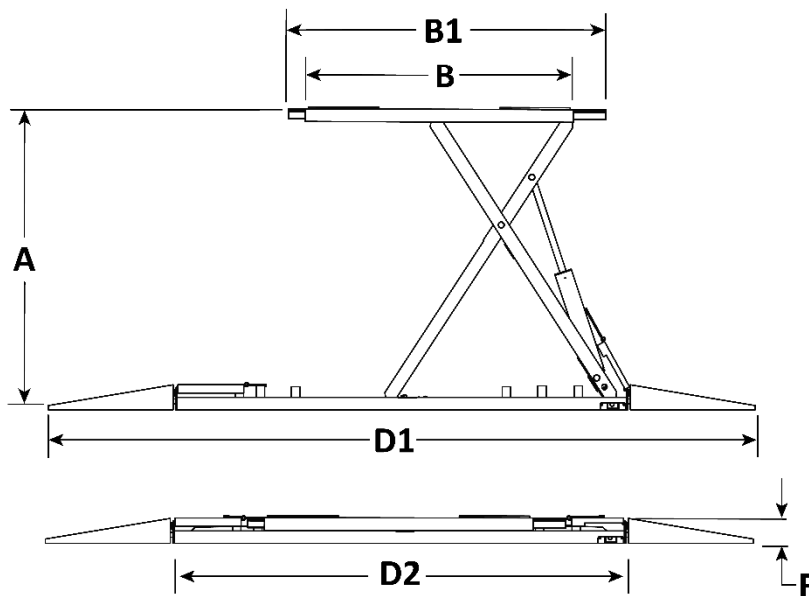
Q: Is there a Lift Arm Attachment for the SP-7XE?

Y: See page 52 for more information on the optional Lift Arm Kit.

Specifications



Top View



Side View

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

Model	SP-7XE	SP-7XEF
Style	Surface mount	Flush mount
Lifting capacity	7,000 lbs. / 3,175 kg	
A Maximum height raised (no blocks)	70.5 in. / 1,790 mm	
B Individual Platform length	62.5 in. / 1,590 mm	
B1 Extended Platform length	74 in. / 1,880 mm	
C Individual Platform width	21.75 in. / 550 mm	
D Total length	D1: 165 in. / 4,190 mm (includes Drive-up Ramps)	D2: 106 in. / 2,692 mm (no Drive-up Ramps)
E Distance between Platforms	38 – 44 in. / 968 – 1,114 mm	38 in. / 968 mm
F Lowered height	6.5 in. / 161 mm	N/A (Top of Platform to be flush with floor)
G Max distance to Console*	Up to 39.25 in. / 999 mm	
Safety Lock Positions	8	
Lifting time	~45 seconds	
Motor**	220 VAC, 50/60 Hz, 1 Ph	

* With the supplied Hydraulic Hoses.

**Special voltages available upon request.

Specifications subject to change without notice.

Installation Checklist

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

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

- 1. Review the installation Safety Rules.
- 2. Plan for Electrical Work.
- 3. Make sure you have the necessary Tools.
- 4. Select the Installation Site.
- 5. Create a Floor Plan.
- 6. Make sure there is adequate clearance on all sides of the Lift.
- 7. Create the Concrete Cutouts (*SP-7XEF model only*).
- 8. Create Chalk Line Guides.
- 9. Lift the Platforms off the Bases.
- 10. Anchor the Bases.
- 11. Assemble the Console and attach the Power Unit.
- 12. Anchor the Console.
- 13. Learn about Hydraulic Fluid Contamination.
- 14. Learn about Thread Sealants.
- 15. Connect the Hydraulic Hoses.
- 16. Learn About Compression Fittings and Tubing.
- 17. Connect the Air Lines.
- 18. Install the Hose Covers.
- 19. Connect the Power Unit (***Electrician required***).
- 20. Install a Power Disconnect Switch and Thermal Disconnect Switch (***Electrician required***).
- 21. Perform an Operational Test.
- 22. Add the Ramp Extensions.
- 23. Add the Drive-up Ramps (*SP-7XE model only*).
- 24. Review the Final Checklist.
- 25. Leave the Manual for the owner/operator.

Installation

This section describes how to install your SP-7XE/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.

Your Lift is supplied with installation instructions and concrete fasteners that meet the criteria set by the current version of the American National Standard “Automotive Lifts – Safety Requirements for Construction, Testing, and Validation”.

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 *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 in accordance with all applicable local electrical codes.

The Electrician needs to:

1. **Connect the Power Unit to a 220 VAC 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; while anyone can install the Power Unit, the Electrician **must** connect the Power Unit to Power. The Electrician must provide a Power Cord with an appropriate plug.
2. **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. Refer to [Install a Power Disconnect Switch](#) for more information.

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3. **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 Drill Bits
- Hammer
- Open-end Wrench set: 1/2", 15/16" – 1 1/8"
- Socket and ratchet set, 1 1/8"
- Medium adjustable wrench
- Crowbar
- Chalk line
- Medium flat screwdriver
- Tape measure (25-foot recommended)
- Forklift or Shop Crane

Select a Site

Keep the following in mind when selecting a site for your Lift:

 **DANGER** **Risk of explosion.** This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors.

- **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.
- **No 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-7XE.
- **Console.** The Console must be positioned near the Lift; the Hydraulic Hoses that are supplied with the SP-7XE models 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. Note that for Flush-Mount models require a greater depth of concrete; there must be 4.25 inches of Concrete ***below the bottom of the Concrete Cutout***. If you intend to run the Hydraulic and Air Lines to some location further than 40 inches from the Lift, consult with your Concrete Specialist to determine the size, depth, and location of the conduits needed for the Hydraulic and Air Lines.
-  **WARNING** Do not install the Lift on a surface with 3° of slope or more. A slope in excess of 3° 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. If you intend to run the electrical power out to the Console under New Pour Concrete, consult with a licensed, certified Electrician to ensure the correct location, depth, size and type of electrical conduit are installed according to national and local codes.
- **Operating temperature.** The Lift is designed to be used between temperatures of 41° to 104°F (5° to 40°C).

- **Outdoor installation.** All Lift models are designed and approved for indoor installation and use only. **Outdoor installation is prohibited.**
- **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-7XE is set up correctly.

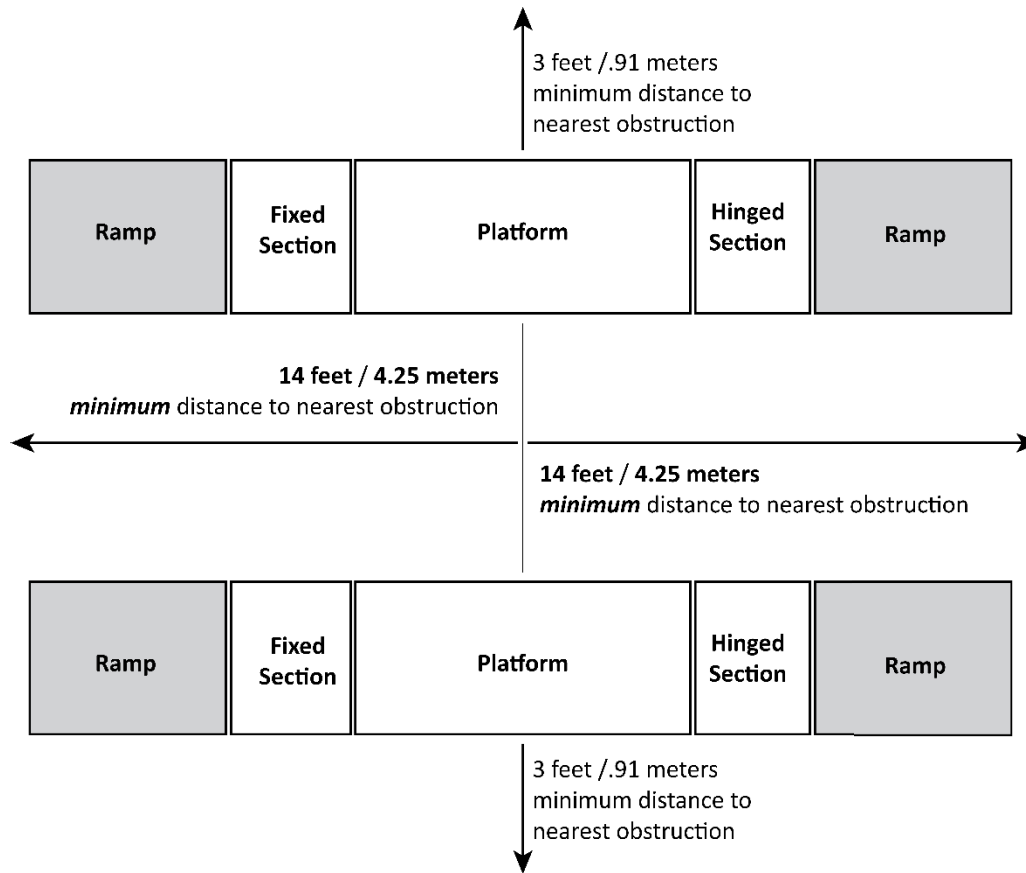
Create a Floor Plan

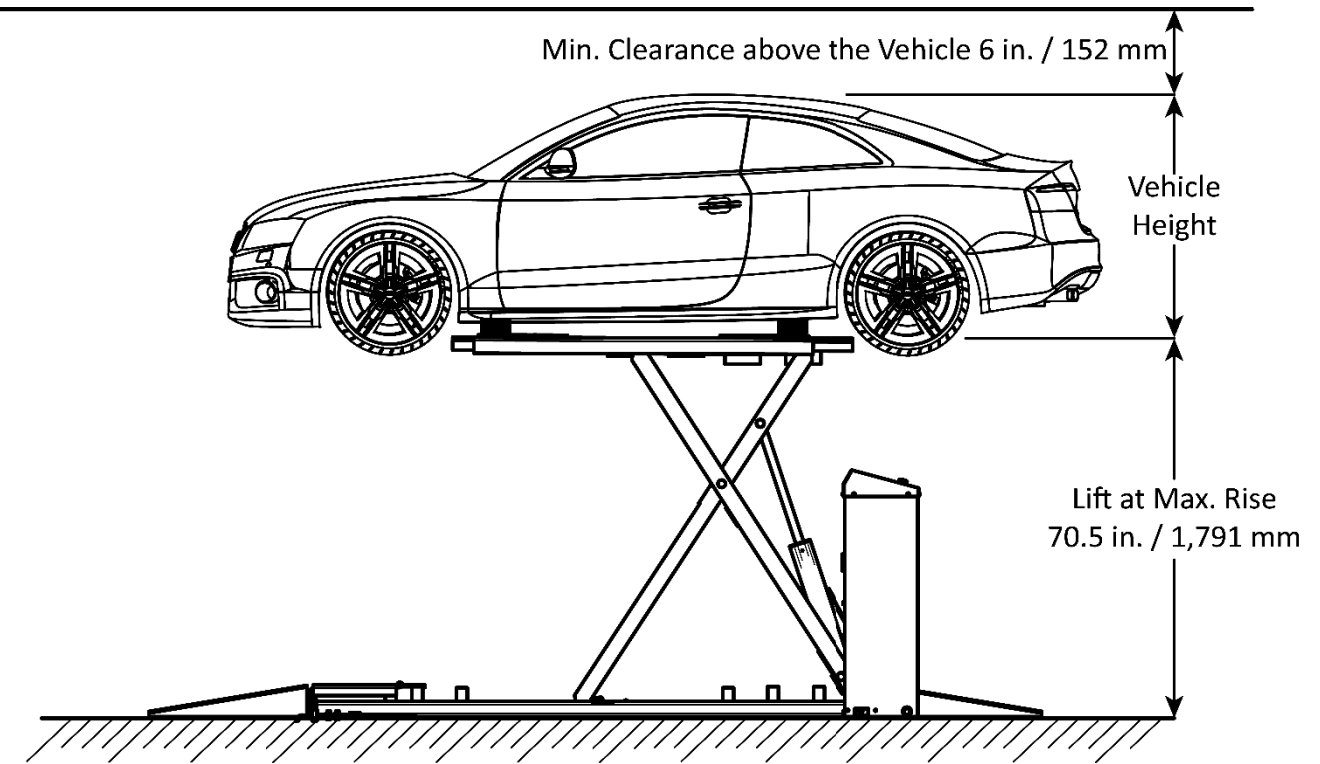
Make sure to plan out, *in advance*, where the Lift and Console are going to go:

- **Clearance.** Make sure there is clearance on all sides and above the Lift site.
- **Console.** The Console must be near the Lift; it can be installed on either side of the Lift, but only on the Cylinder-end of the Platforms. The supplied Hydraulic Hoses can support up to 40 inches 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** be positioned near an appropriate power source.
- **Create Chalk Lines.** Create Chalk Lines for the Lift to make sure the Lift is properly aligned.

Clearances around and above the Lift

For safety purposes, a reasonable amount of clear space around and above the Lift is **required**, as depicted below.





New Concrete Slab Requirements

⚠ CAUTION BendPak strongly recommends working with a Concrete specialist to plan and create Concrete Cutouts and/or Slabs for the **SP-7XE and SP-7XEF** model.

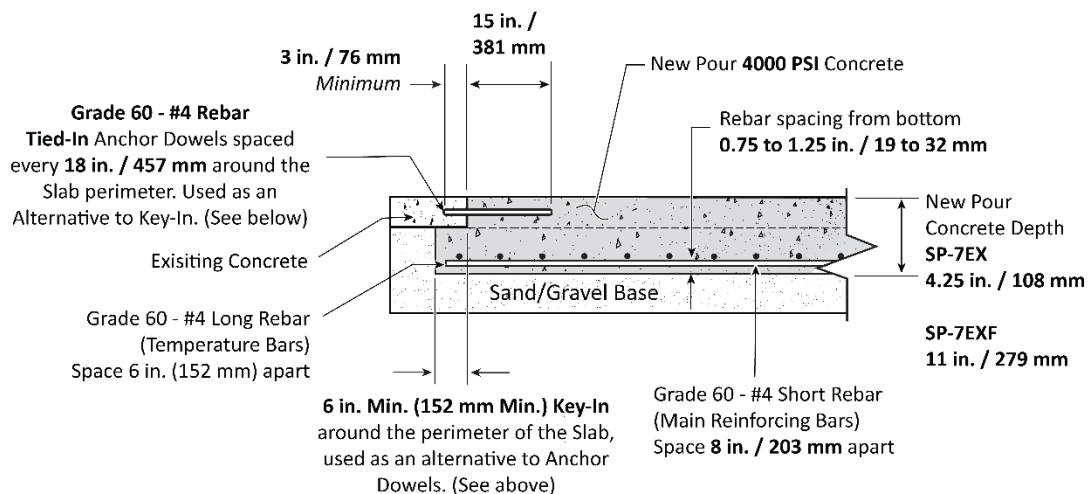
If your existing Concrete does not meet the requirements previously listed, then a New Concrete Slab may be required. All properties of the New Concrete Slab are **mandatory** and **must** conform to the following requirements:

- New Concrete Slabs **must** have a *minimum* compression strength of 4,000 PSI, cured for at least 28 days, and a surface slope not exceeding 3°.
- New Concrete Slabs **must** have a *minimum* thickness of 4.25 in. **SP-7XE** (11 in. **SP-7XEF**).
- New Concrete Slabs **must** be fully surrounded by and flush with the existing Concrete Floor.
- New Concrete Slabs **must** be “Keyed-in” around the perimeter **or** may be “Tied-in.”
- Locate reinforcing bars away from any Anchor positions or at an elevation that allows you to avoid drilling into reinforcing steel while installing the Expansion Anchors for the Lift.
- Certified strength documentation for New Pours should be obtained from the firm who supplies the Concrete Mixture at the time of the Pour.
- **Never** install the Lift over an expansion joint.
- **Never** install the Lift on hand-mixed concrete.
- **Never** install the Lift on a secondary floor level without written authorization from the building Architect and prior approval from BendPak.
- **Never** drill or cut into a post-tensioned slab. Contact qualified personnel prior to drilling or cutting to check your floor for the possibility of it being a post-tensioned slab.

Key-In / Tie-In Details

Consult a Concrete Specialist before attempting to create any Concrete Pours. New Concrete Pour must be connected to the existing concrete surrounding it. Two methods are recommended here, Key-in and Tie in. **There is no need to complete both methods, choose one or the other.**

- **Key-in.** This key-in method undercuts the existing concrete by **6 in. / 152 mm** around the perimeter of the New Pour, effectively locking the New Pour into the existing concrete.
- **Tie-in.** This tie-in method uses Anchor Dowels and the New Pour. Anchor Dowels are to be **#4 Rebar x 18 in. / 457 mm long**. These Anchor Dowels are then embedded **3 in. / 76 mm** minimum into the existing Concrete and spaced **18 in. / 457 mm** apart around the perimeter of the New Pour.



Prepare the Concrete Cutouts: SP-7XEF Only

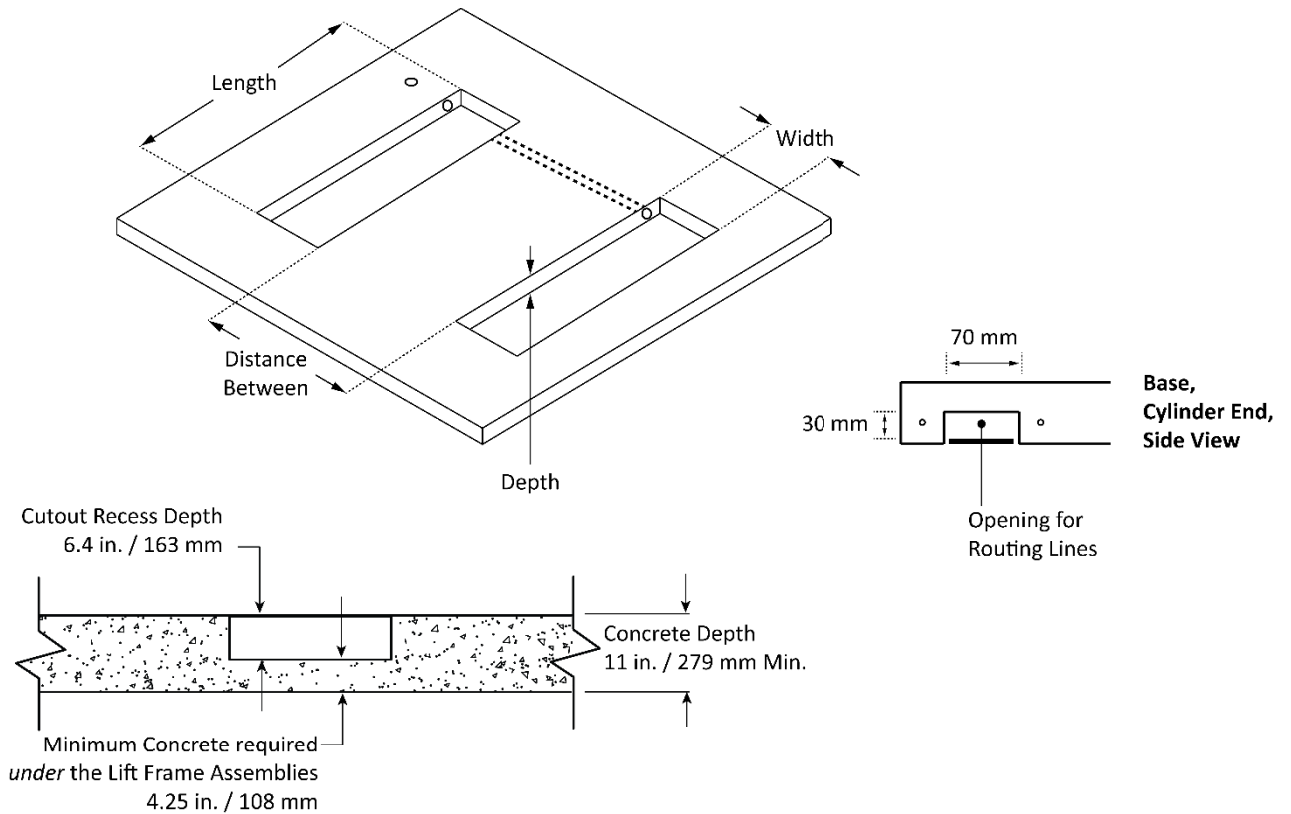
Important: BendPak *strongly* recommends working with a Concrete Specialist to plan and create the Concrete Cutouts for your Flush-Mount Lift.

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

- **Planning.** There are 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.
- **Concrete Cutouts.** The Lift Bases of a Flush-Mount Lift are installed in a recessed section of the floor, called a *Concrete Cutout*. This cutout may be made in the existing concrete if it meets the thickness, compression, and condition requirements listed in this section. If not, then a reinforced New Pour is required.
- **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.** New Concrete Pour must cure for a minimum of 28 days before they are strong enough to support Anchor Bolts.
- **Floor Material.** Concrete Cutouts and New Pour must be surrounded by and created in a **Concrete** floor; no other surface (asphalt, dirt, anything else) is acceptable.
- **Cutout Size.** Concrete Cutouts need to be slightly larger than the Bases. The values listed at the end of this section add **0.5 inch / 2.75 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 in. / 108 mm is required.
- **Air and Hydraulic Lines:** Your plans for the Concrete Cutouts must account for how these Air and Hydraulic Lines will be routed to the Console.

PVC Conduit with a 2.5 inch minimum diameter is commonly used to route the Hydraulic and Air Lines between the two Frame Assemblies and the Console. If you plan to cut in existing concrete, then plan for cutting channels between the Frame Assemblies and the Console to fit the PVC Conduit and then cover with Concrete.

Both Bases include rectangular openings for routing the Hydraulic and Air Lines already created; there are two per Base, both on the Cylinder end. These opening are for your convenience; you are not required to use them.
- **Lift Location.** Use care when selecting a location for a Flush-Mount Lift. Once you create your Concrete Cutouts, the Lift location is permanent. Choose a location that allows a straight approach to the Lift, without obstructions, and allows access to air and the power source.
- **Console Location.** The Console can go on either side of the Lift, but at the Cylinder end of the Frame Assemblies. The supplied Hydraulic Hoses support up to 40 inches / 1,016 mm away from the closest Frame Assembly. You can mount the Console further away, but this will require custom-length Hydraulic Hoses, longer Air Lines and more Hydraulic Fluid. 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.** Use the dimensions shown in the following diagram as a guide for your Concrete Cutouts.



*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.*

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

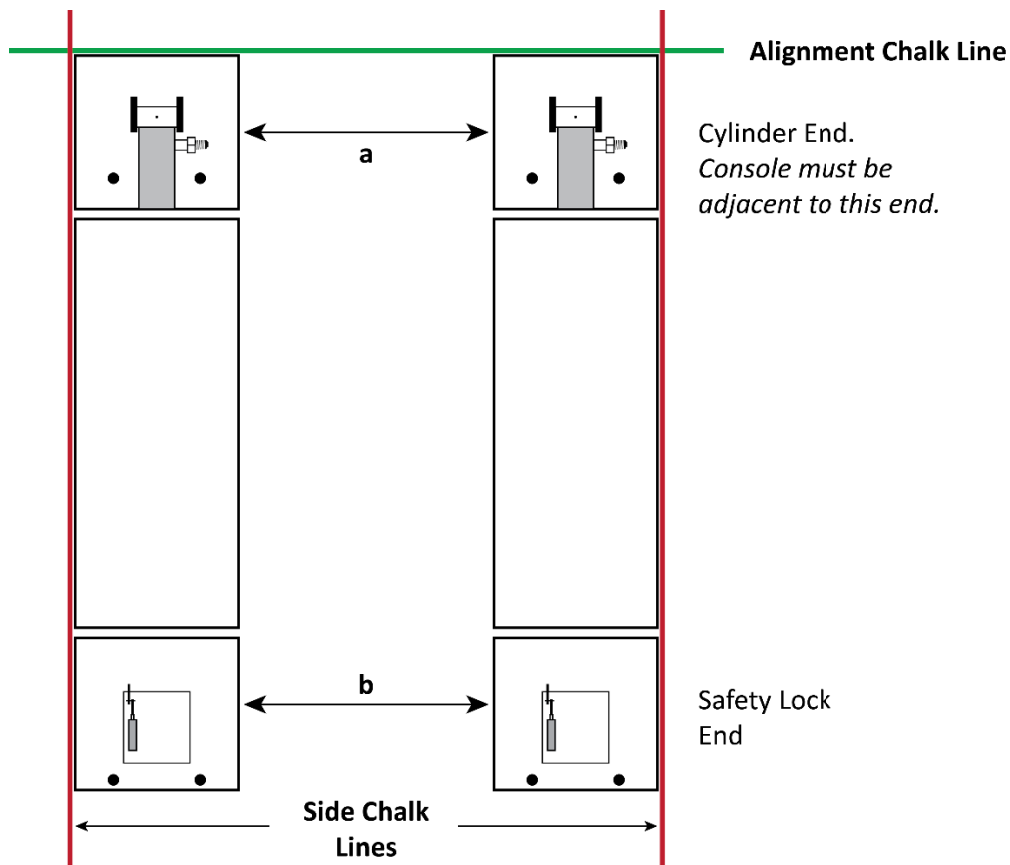
- **Length.** The Length of each SP-7XEF Frame Base is 106 inches / 2,692 mm; add 1 inch / 25 mm to get **~107 inches / 2,718 mm.**
- **Width.** The Width of each SP-7XEF Frame Base is 22 inches / 559 mm; add 1 inch / 25 mm to get **~23 inches / 584 mm.**
- **Depth.** The Lowered height of each SP-7XEF Frame is **6.4 inches / 163 mm.** You do **not** add an extra inch to this value.
- **Distance Between.** The two SP-7XEF Bases can be from **38 to 44 inches / 965 to 1,118 mm** apart. You do **not** add an extra inch to this value.
- **Important:** If you are installing the SP-7XEF 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 Service Pit.
- **Distance to Console.** The supplied Hydraulic Hoses allow the Console to be up to **40 inches / 1016 mm** from the nearest Base. You do **not** add an extra inch to this value.

⚠ CAUTION

If you create your Concrete Cutouts and then change your mind about the Distance Between or find out you made a mistake with one of the dimensions, it is very difficult to fix. **BendPak strongly recommends double checking your plans several times before pouring your Concrete Cutouts.**

Create Chalk Line Guides

Use Chalk Line Guides to make sure the Frames are parallel and in the desired location. The following drawing shows the Alignment Chalk Lines to create for your Lift.



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-7XE.
Make the Alignment Chalk Line **longer** than the **Overall Width** 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 in. to 44 in. / 965 mm to 1,118 mm plus the width of the two Frames, 44 in. / 1,118 mm).
4. Move each Frame into position, into the corners created by the four Chalk Lines.
The two Frames are interchangeable; it does not matter which one goes on which side.

NOTICE The Console **must** be positioned 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 need to raise the Platforms off the Bases to route and connect the Hydraulic and Air Lines. **When you raise the SP-7XE, make sure to leave it engaged on a Safety Lock.**

NOTICE

BendPak strongly recommends raising the Platforms at least halfway up, as this gives you enough room under the Platform to install the Anchor Bolts and connect the Hydraulic and Air Lines.

⚠ WARNING

Do not place any part of your body under the Platform while it being raised. Use a wood 2 x 4 or other suitable device to hold the Base in position until the Platform is secure on the top Safety Lock.

⚠ WARNING

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

To lift the Platforms off the Bases:

1. Use Crowbars to lift the Platforms off of their Bases, then carefully, slip a rope, chain, or industrial strap (sling) under each end of the Platform.

⚠ WARNING

Beware of all pinch points and crush hazards. Keep hands and feet clear **at all times**.

2. Using a Forklift or Shop Crane, carefully raise the Platform off its Base.
3. When the Platform is raised at least halfway, lower it back down to engage it onto the nearest Safety Lock.

⚠ WARNING

Do not raise the Platform a random distance; you **must** leave it on a Safety Lock.

4. Perform the same procedure on the second Platform.

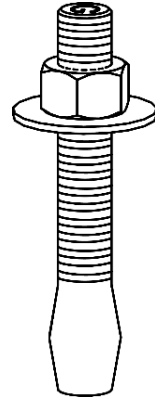
Anchor the Bases

Each Base has four holes for anchoring. Anchor Bolt Assembly Part Number 5530456.

CAUTION 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.

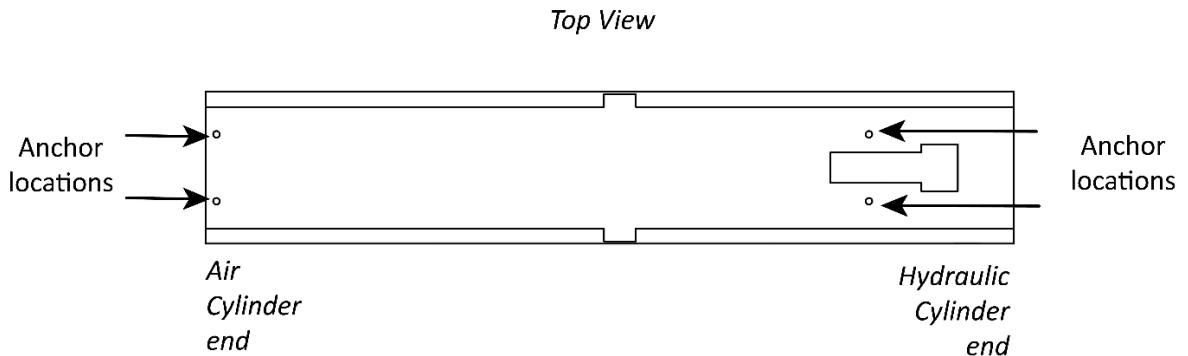
Anchor Bolt specifications are:

- **Length:** 4.75 inches
- **Diameter:** .75 inch
- **Effective embedment depth:** 2.75 inches, minimum
- **Anchor torque:** 85 – 95 pound feet (do not torque 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.

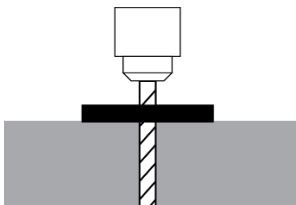
The following drawing shows the locations of the Anchor Bolt locations in each SP-7XE/F Base.



To anchor your SP-7XE Bases:

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



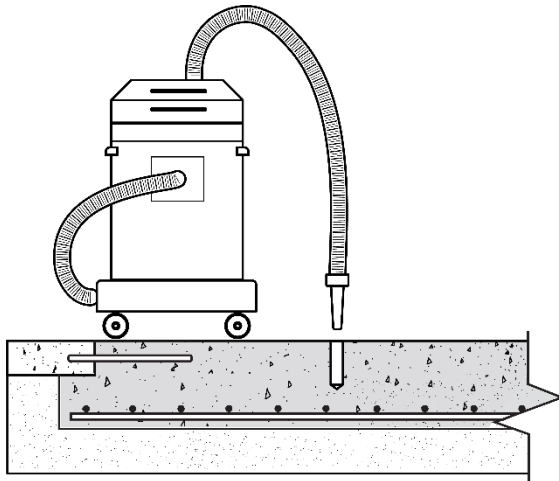
Go in straight; do not let the drill wobble.

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

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

2. Clean each hole. Use a vacuum to thoroughly clean each hole.

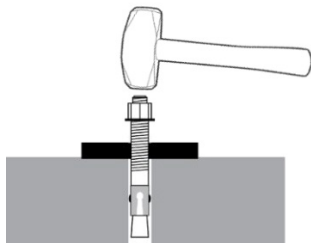
⚠ WARNING Always wear the appropriate eye protection and protective equipment.



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.

3. Verify the Washer and Nut are in place, then insert the Anchor Bolt into the hole. You want approximately 1/4 inch to 1/3 inch — 6 to 8 mm — of thread visible above the Nut.

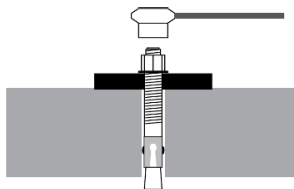


The Expansion Sleeve of the Anchor Bolt may prevent the Anchor Bolt from passing through the hole in the Base; this is normal. Use a hammer or mallet to get the Expansion Sleeve through the Base and down into the hole.

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.

4. 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.
5. 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.

Assemble the Console and Attach the Power Unit

Some Consoles are shipped assembled, and others are not.

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



Tip

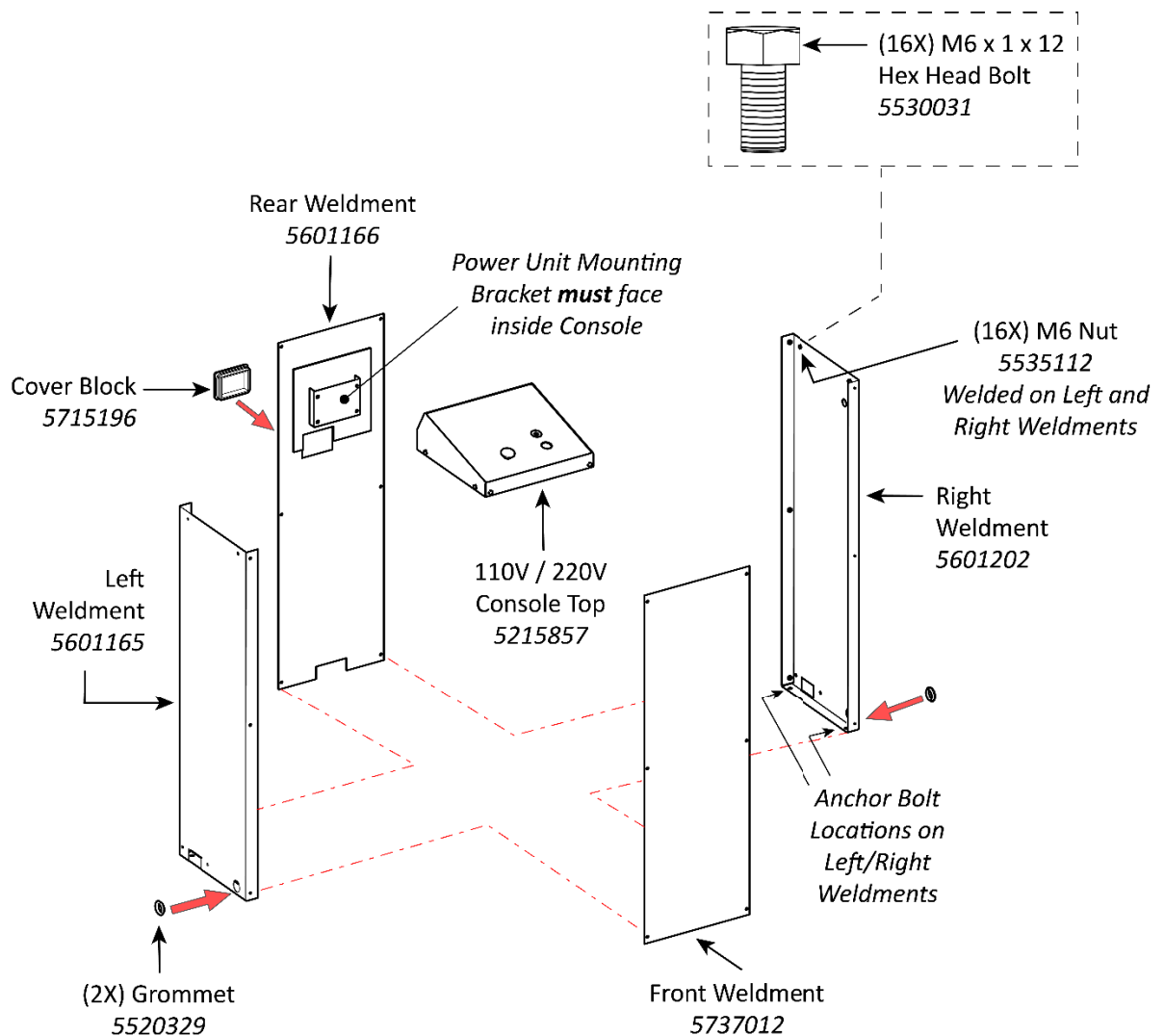
If you want to set up the Console further than 40 inches from your Lift, you will need to obtain Hydraulic Hoses that are long enough to reach the Lift from the desired location. You may be able to obtain these Hydraulic Hoses from a local hydraulics shop certified to fabricate Hydraulic Hoses, once you know how long you need them. You will also need longer Air Lines.



WARNING

If you choose to change the Hydraulic Hose lengths, **the lengths must be within 5% of each other**. The SP-7XE/F 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.

The following illustration details the main components of the Console.



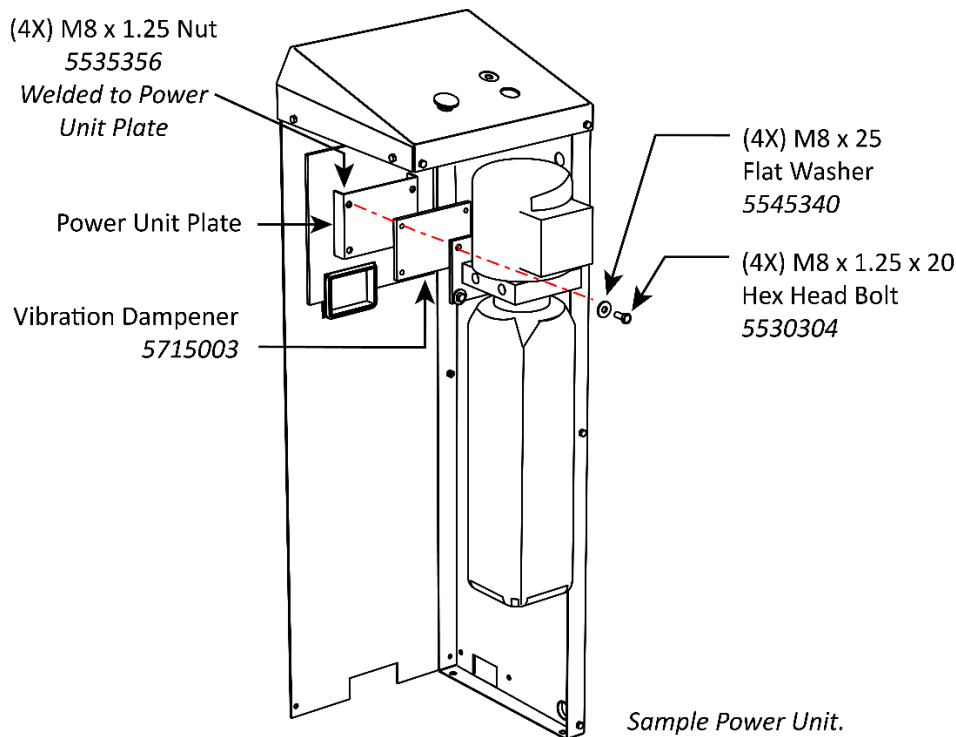
To assemble the Console and attach the Power Unit:

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 Hoses, the Console can go on either side of the Lift, up to 40 inches away from the closest Frame.
2. Arrange all the Console components near where you are going to put it together.
3. Put the Grommets into place near the bottom of the Left and Right Weldments.
4. Put the Cover Block into place on the Rear Weldment, just under the Power Unit Mounting Bracket; you can use this opening to route the Hydraulic Hoses, if you like.
5. Put the Left Side on the left and the Right Side on the right, then attach both to the Rear Weldment, making sure to orient the Rear Weldment so that the **Power Unit Mounting Bracket is on the inside**.

The Rear Weldment attaches on the *outside* of the two sides.

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

6. Remove the Power Unit from the shipping material.
7. Attach the Power Unit to the Power Unit Plate on the inside back of the Console using the supplied Nuts and Bolts.



CAUTION

The Power Unit is heavy. BendPak recommends having one person hold the Power Unit in place while another person bolts it into place.

Important:

Do not connect the Power Unit to the power source at this point.

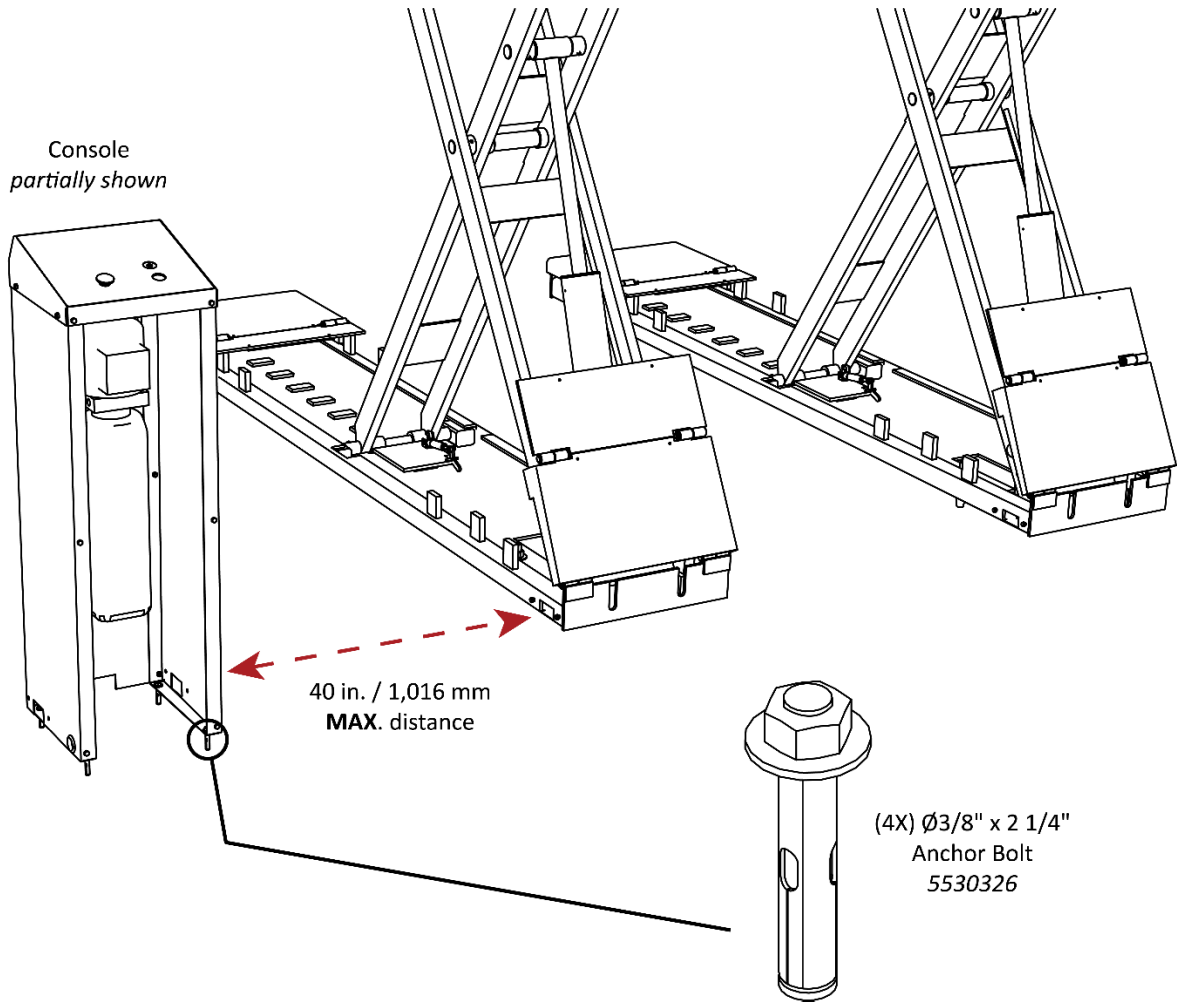
Anchor the Console

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 fairly permanent decision. Delaying the anchoring allows you 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.

The Console may be mounted on either the Left or Right side of the Lift, *up to 40 inches away*. The Console must be on the Cylinder end of the Frames in a direct line from the rectangular opening in the Lift Base used for routing the Hydraulic and Air Lines.

When you are ready to anchor the Console into place, return to this section and follow the instructions.



To Anchor the Console:

1. Remove the Front Console Weldment and the four M6 Hex Head Bolts that hold it in place; this allows access to the inside of the Console to insert the Anchors.
Keep the components nearby, you will need them again soon.
2. Locate the mounting holes on the bottom of the Left and Right Console Weldments (on the inside). The Anchor Bolts go into these holes.

Important: BendPak recommends marking the holes with the Drill through the Console Base, then move the Base out of the way to finish drilling the holes to the 3 in. depth.

3. Using the holes in the Console Base as a guide, drill the holes 3/8 in. wide by 3 in. deep into the Concrete.













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

 **WARNING** Always wear the appropriate eye protection and protective equipment.

4. Remove all dust and debris 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.
5. Move the Console back over the drilled holes.
6. Retrieve the four Anchor Bolts from the Parts Bag, make sure the Washer and Nut are in place, then insert the anchor Bolt into the mounting hole in the Console and through the drilled hole in the Concrete.
7. Hammer or mallet the Wedge Anchor the rest of the way down into the hole.
Stop hammering when the Washer is snug against the Console Base.
8. Wrench the Nut **clockwise** to the recommended installation torque, 10-15 pound feet, using a Torque Wrench.

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

Hydraulic System Warnings:

-  **DANGER** Failure to observe these warnings can result in serious personal injury including, in rare cases, death.
-  **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 adjust the relief valve, using calibrated Hydraulic Pressure gauges to assure the proper pressure setting is achieved.
-  **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.
-  **DANGER** The Hydraulic System can contain high pressure which, if suddenly released, can cause serious injury or death.
-  **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 hose lengths must be within 5% of each other**. The SP-7XE/F Lift is a Hydraulically Balanced Lift. If the hose lengths vary by more than 5% there is a risk that the Platforms will rise unevenly. Choose a certified Hydraulic Hose fabrication facility to assemble any replacement hoses.



IMPORTANT! PLEASE READ NOW



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 the Lift, making your new Lift inoperable and unusable.

Your Lift is shipped with clean components; however, BendPak strongly recommends that you take secondary precautions 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 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 ANSI-approved 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 inadvertently enter the Hydraulic System.
- **Use a liquid thread sealant only.** Liquid thread sealant (Loctite™ 5452 or similar) is recommended. Do not use thread seal tape on any fitting. Liquid thread sealant is recommended for NPT connections, fine for JIC connections, but *not* necessary for O-ring (ORB) connections.
- **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 the Hydraulic Hoses. As a general rule keep the Hydraulic Hoses and Fittings capped and 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 Hydraulic Fluid 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.

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 probably only need to use with NPT connectors.



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. Skipping the top thread, 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 put too much, the excess liquid will be pushed out when the Fitting is tightened; use a rag to wipe the excess.

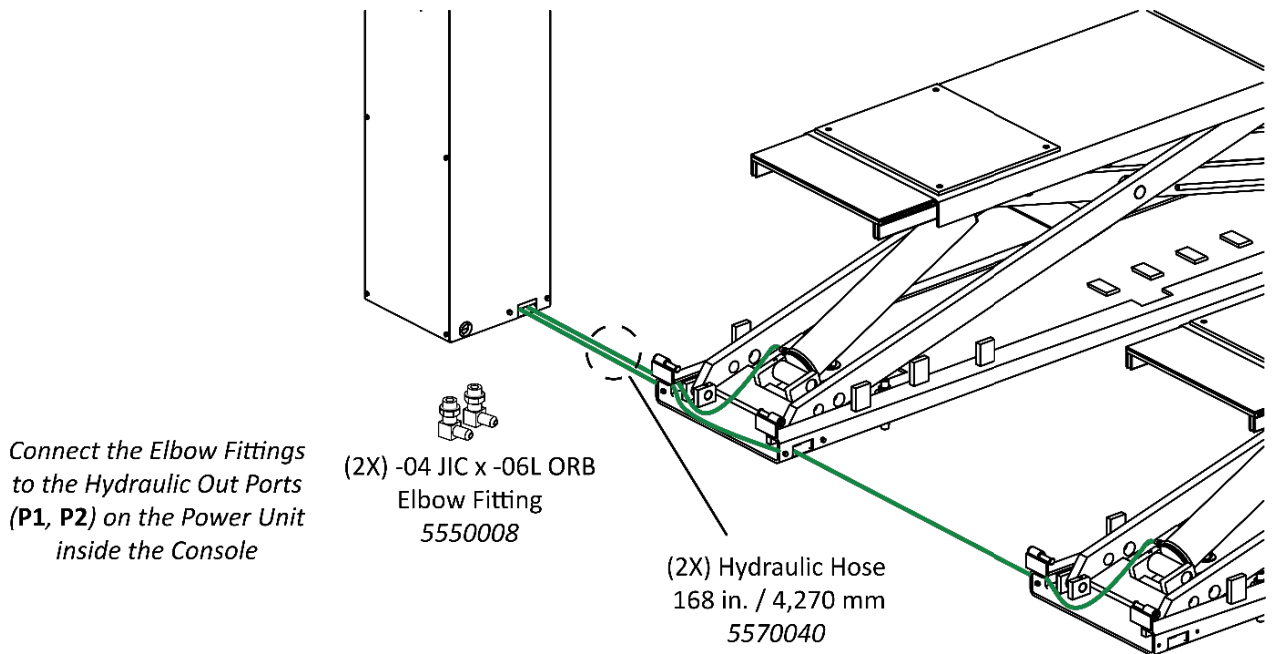
3. Tighten the Fitting into the connector; do **not** over tighten the Fitting.
4. Allow the **24-hour** manufacturer-recommended curing time before pressurizing the system.

Connect the Hydraulic Hoses

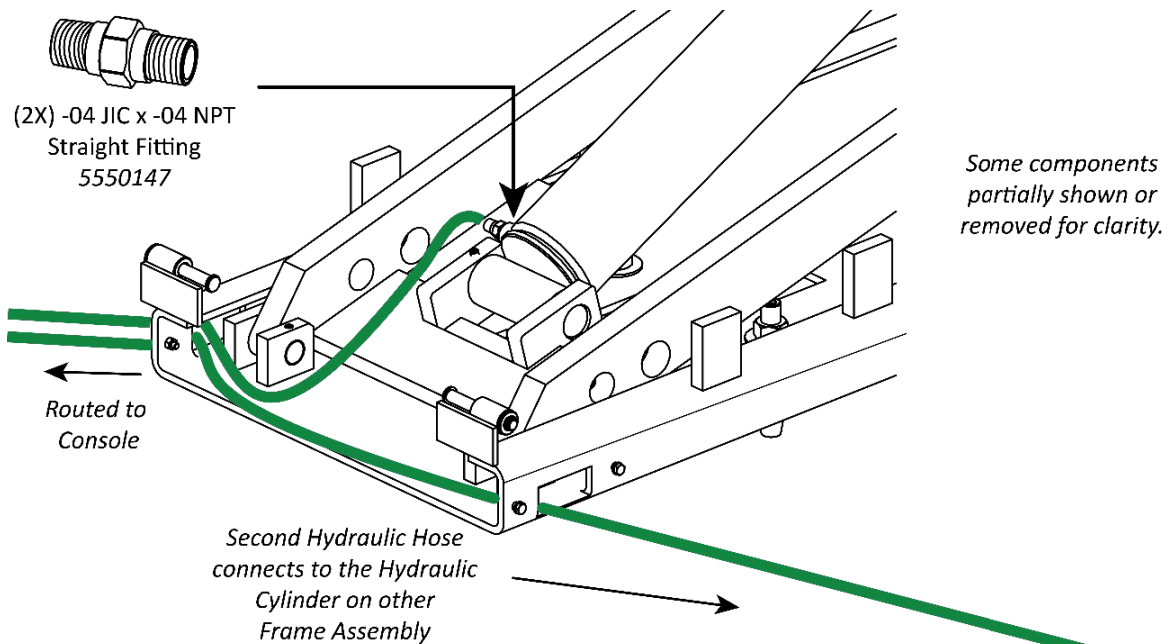
The SP-7XE Lifts come with two Hydraulic Hoses, both of which go from one of the two Hydraulic Power Ports on the Power Unit to one of the Hydraulic Cylinders. The two Hydraulic Hoses are the same length, so it does not matter which Lift Frame they attach to.

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

The following illustration shows how to route the Hydraulic Hoses from the Console to the Hydraulic Cylinders.



The following illustration shows a detail of the connections to the Hydraulic Cylinders.



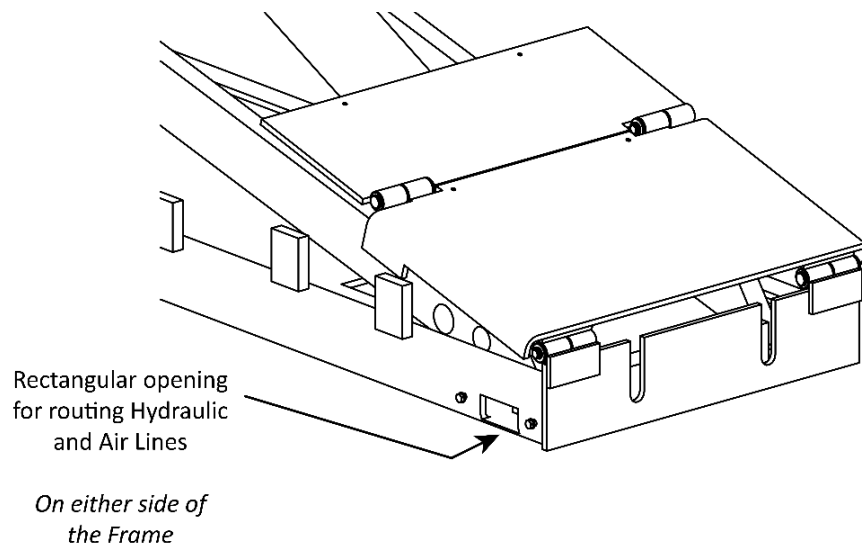
To connect the Hydraulic Hoses:

1. Locate the two Hydraulic Elbow Fittings (5550008), two Hydraulic Hoses (5570040), and two Hydraulic Straight Fittings (5550147).
2. Remove the Shipping Plugs from the two Hydraulic Pressure Ports on the Power Unit, (labelled **P1** and **P2**), then attach a Hydraulic Elbow Fitting to each Hydraulic Power Port.
See **Wiring Diagrams** for the Hydraulic Port locations on your Power Unit.
3. Remove the Shipping Plugs from the Hydraulic Port at the bottom of each Hydraulic Cylinder, then visually inspect and clean the Port threads.
4. Attach a Hydraulic Straight Fitting to each of the Hydraulic Ports.

Use Thread Sealant on NPT Threads only.

5. Attach one of the Hydraulic Hoses to one of the Hydraulic Elbow Fittings on the Power Unit, then attach the other end of the same Hydraulic Hose to a Hydraulic Straight Fitting at the bottom of one of the Hydraulic Cylinders.

NOTICE Make sure to route the Hydraulic Hose through the rectangular openings in the Cylinder end of the Bases. Both Hydraulic Hoses and Air line will go through these openings.



If you are attaching the Hydraulic Hose 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 Hose 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 Hoses are correctly routed and do not have any kinks, then use appropriate tools to **securely** tighten the connections.

Working with Compression Fittings and Tubing

Your Lift comes with a roll of ¼ 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:

8. **¼ 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.
9. **Straight Compression Fittings.** The Air Line uses two Straight Compression Fittings, one at the top of each Hydraulic Cylinder.
10. **Elbow Compression Fittings.** The Air Line uses two Elbow Compression Fittings, one on each Air Cylinder.
11. **Tee Compression Fittings.** The Air Line requires three Tee Compression Fittings.
12. **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-7XE Lifts use hydraulic pressure to move the platforms off the Safety Locks. Air Pressure is used to raise and lower the Safety Latch Weldments away from the Safety Lock Blocks freeing the Platform to be raised or lowered.

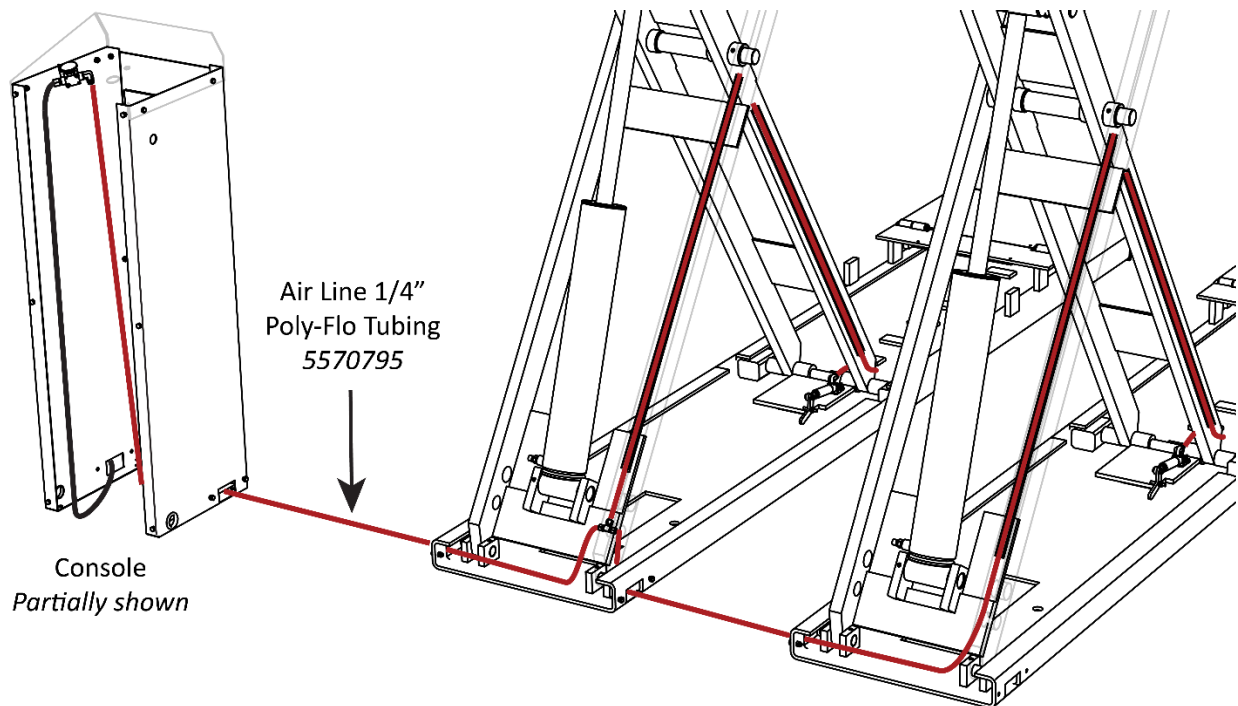
NOTICE It is the owner's responsibility to provide an air pressure supply (minimum 30 psi / 3 CFM, regulated to a maximum of 125 psi).

The air pressure supply is distributed to the Air Cylinders using ¼ 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.



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

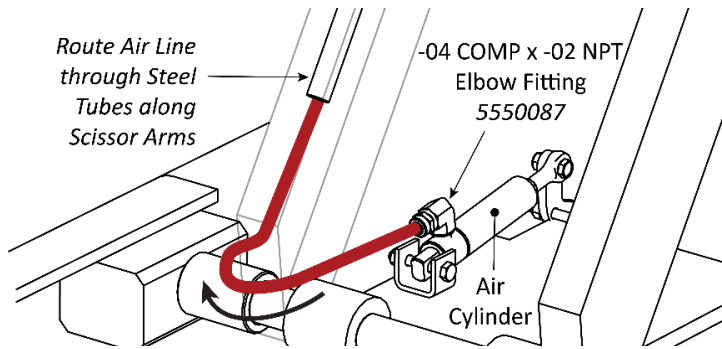
The following drawing shows how to route the Air Lines from the Console to the Air Cylinders.



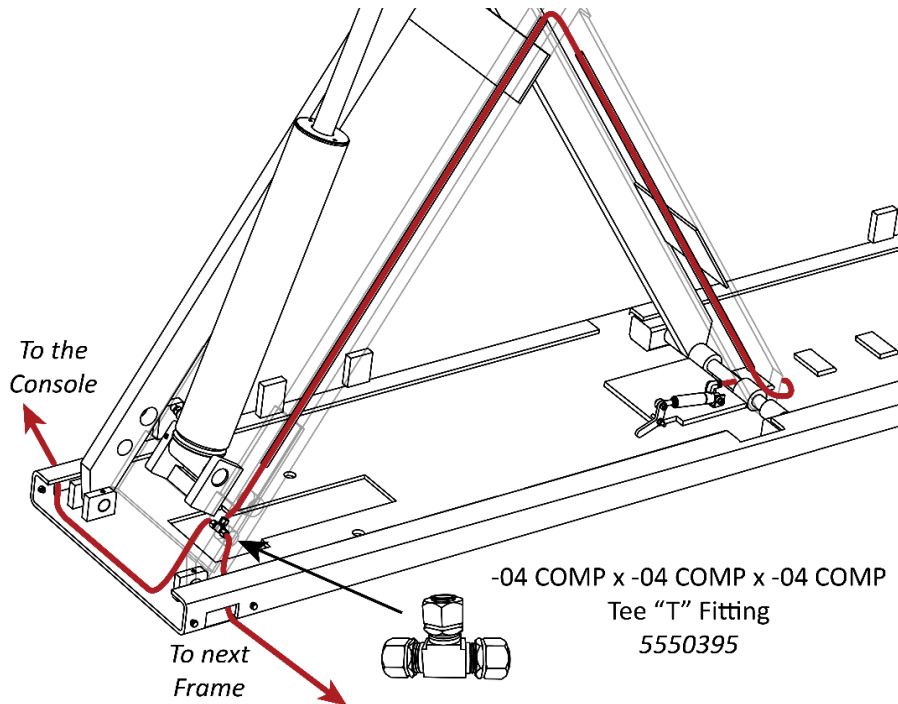
To connect the Air Line:

1. If the two Elbow Compression Fittings (5550087) are not already connected to the top of the Air Cylinders, connect them now.

Use Thread Sealant on NPT Threads only.

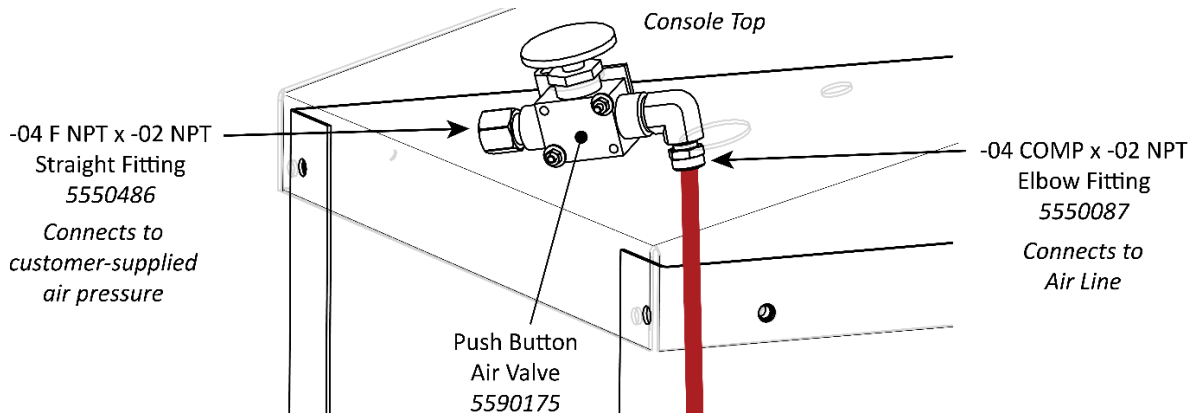


2. Locate the roll of ¼ inch, black, polyethylene Tubing and the Tee Compression Fitting (5550395).
3. Cut the tubing into three sections of appropriate lengths for your installation. See the drawing on the previous page for additional information.
4. Connect the three tubing sections and Tee Compression Fitting to the Compression Fittings on the Air Cylinders, routing the Air Line through the Steel Tubes along the Scissor Arms on the Lift.



5. 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.

Use Thread Sealant with NPT Threads only.



Pushbutton is above the Console Top; all other components are under the Console Top.

6. 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.

Install the Hose Covers

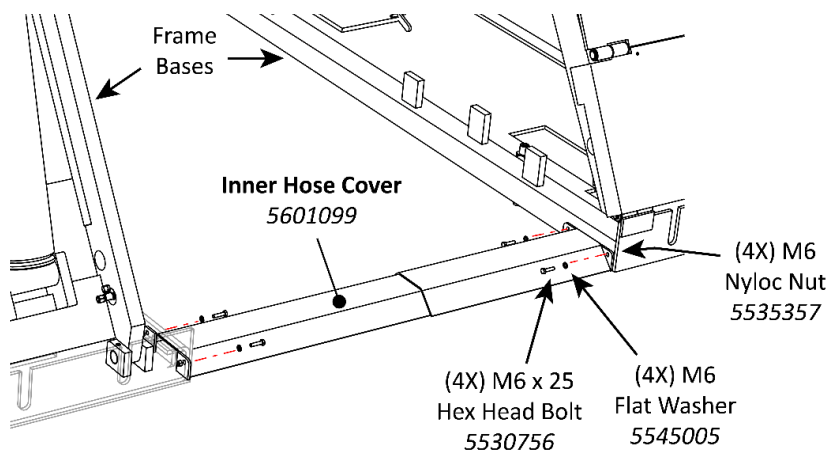
The Hose Covers are required to protect the Hydraulic Hoses and Air Line from damage.

The Inner Hose Cover is positioned between the Frame Assemblies; the Hose Cover is adjustable 40 – 46 inches / 1,016 – 1,168 mm.

The Outer Hose Cover is positioned between the Console and the closest Frame Assembly; it is **not** adjustable for length. The Outer Hose Cover measure 40.25 in. / 1,022 mm long.

To install the Hose Covers:

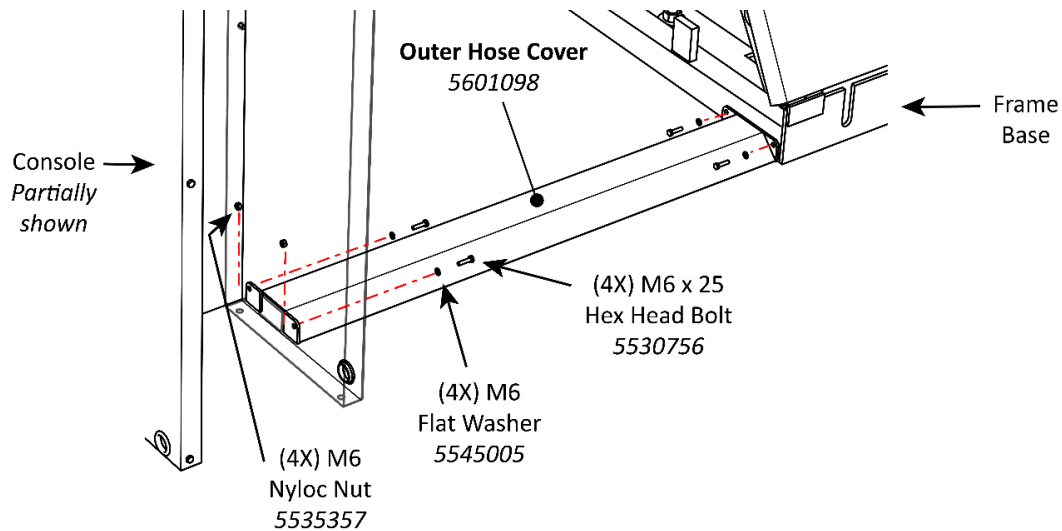
1. Locate the Inner and Outer Hose Covers, eight M6 Hex Head Bolts, M6 Flat Washers and M6 Nyloc Nuts.
2. Position the Inner Hose Cover between the Frame Assemblies, making sure to cover the Hydraulic Hoses and Air Line, and then secure it to the Frame Bases using four M6 Hex Head Bolts, M6 Washers, and M6 Nuts.



CAUTION

Use care to not crush or pierce the Hydraulic Hoses and Air Line underneath the Hose Covers.

3. Position the Outer Hose Covers between the Console and the nearest Frame Assembly, making sure to cover the Hydraulic Hoses and Air Line, and then secure it to the Console Base and Frame Base using four more M6 Hex Head Bolts, M6 Washers, and M6 Nuts.



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 Standard Power Unit for your Lift is 208-240 VAC, 50/60 Hz, 1 phase.

⚠ 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.

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

The Power Unit has multiple connections:

- **Hydraulic Hoses.** The Lift has two. They both connect to the Power Unit on one of its two Hydraulic Power Out Ports. *They should already be connected.*
- Refer to [Connect the Hydraulic Hoses](#) for full details.
- **Console Buttons.** Power Unit wiring connects to the underside of the top of the Console to enable the **Raise** and **Lower** buttons. The **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.

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

1. Remove the front cover of the Console Top if it is currently in place.
2. For the Raise and Lower Buttons on the Console, the wiring comes from the factory connected to the appropriate Button. Simply connect them mechanically to the Console.

-
3. For the power source, the Electrician needs to locate the Electrical Box wiring, open the Electrical Box, remove the Pigtail, and then wire a Power Cord with appropriate Plug inside the Electrical Box. Alternatively, the Electrician could connect directly to the facility electrical system protected by an appropriate circuit breaker.

The Power Cord and Plug are **not** supplied with the Lift.

Refer to the **Wiring Diagrams** for proper wiring information.

Important electrical information:

4. Improper electrical installation can damage the Power Unit motor; this damage is not covered under warranty.
5. Use a separate circuit breaker for each Power Unit.

Protect each circuit with a time-delay fuse or circuit breaker. Refer to the **Wiring Diagrams** for Voltage and current information.

Fill the Hydraulic Fluid Reservoir

The Hydraulic Fluid Reservoir on the Power Unit must be filled with Hydraulic Fluid or automatic transmission fluid before you **begin** normal operation of the Lift. When you receive the Lift, the Hydraulic Fluid Reservoir is empty. The Power Unit will not work correctly until it is filled with approved fluids.

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

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

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.

To fill the Hydraulic Fluid Reservoir:

1. Remove the Reservoir Cap from the top of the Hydraulic Fluid Reservoir and set it aside.

Take care to **keep contaminants out** of the Hydraulic Fluid Reservoir.

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

The Reservoir holds approximately 3.5 gallons / 13.25 liters of Hydraulic Fluid.

3. When the Reservoir is filled, put the Reservoir Cap back on.

Important: Typically, the Platforms are up on the first Safety Lock at this point. Keep in mind that you will need to refill the Reservoir during the Operational Test. The Hydraulic Cylinders and Hydraulic Hoses will take up a considerable amount of fluid. If you have installed longer Hydraulic Hoses, then more than the specified typical amount will be required.

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, 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 within **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 in accordance with all applicable local electrical codes.

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 in accordance with all applicable local electrical codes. 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 electrical current that exceeds 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.**

Perform an Operational Test

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).




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 Drive-up 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 the **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.

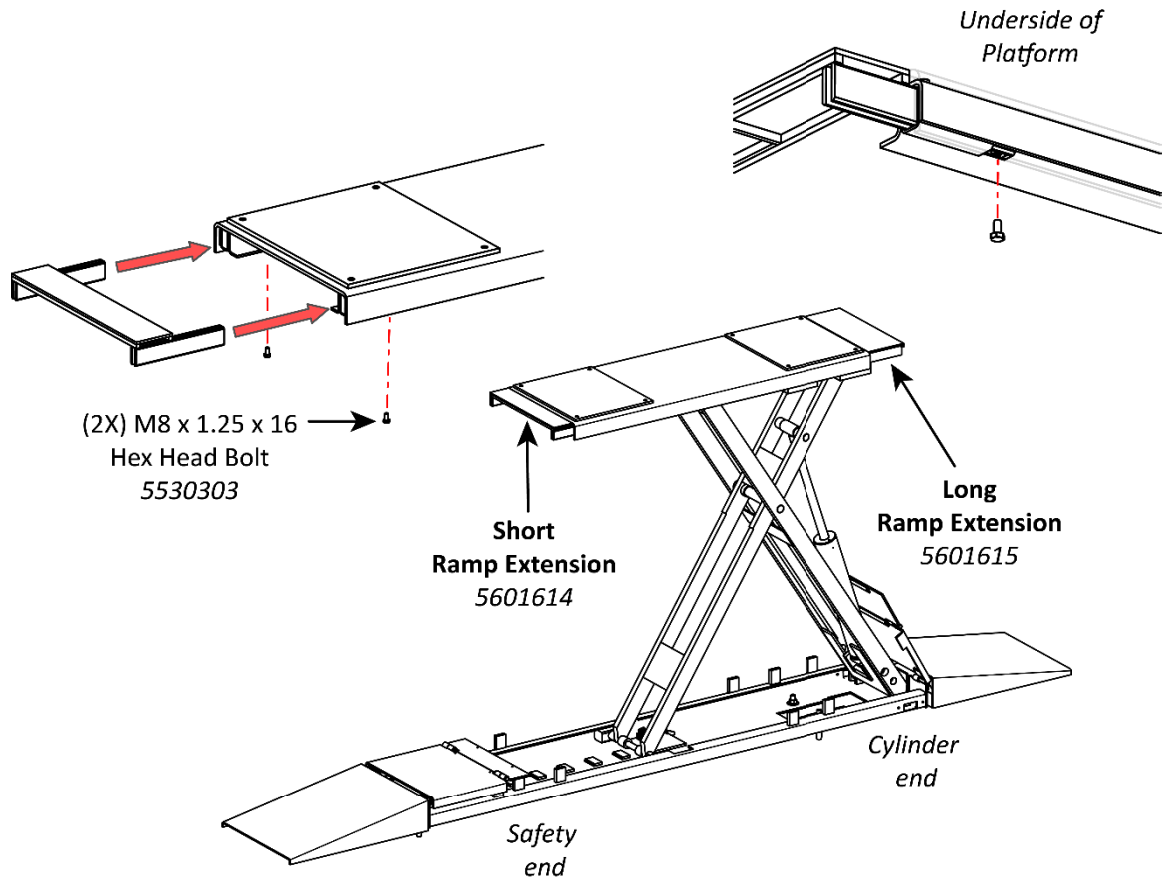
If you continue to have issues, refer to **Troubleshooting** for assistance.

Add the Ramp Extensions

The Ramp Extensions add length to the Platforms for use with Long Wheelbase Vehicles.

There are two Ramp Extensions of different lengths; the Short Ramp Extension (5601614) attaches at the Safety Lock end of the Platform, and the Long Ramp Extension (5601615) attaches at the Cylinder end of the Platform.

⚠ DANGER The maximum load capacity for the Ramp Extensions must **not** exceed 25% of the Lift's rated capacity (1,750 lbs. / 793 kg.). Overloading the Ramp Extensions can result in damage to the Lift or the Vehicle, cause serious bodily injury or death, and voids the warranty.



To add the Ramp Extensions:

1. Determine which Ramp Extension you want to start with first, then move to the corresponding end of the Platform.

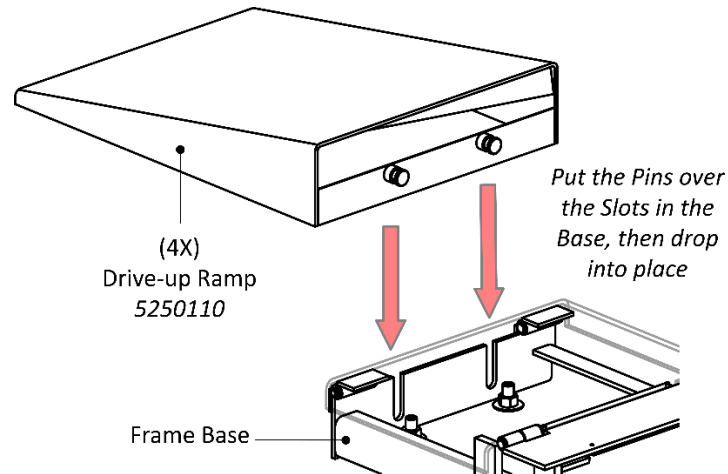
The Short Ramp Extension attaches to the Safety Lock end, the Long Ramp Extension attaches to the Cylinder end of the Platform.

2. Slide the Ramp Extension into the slots near the end of the Platform, then secure on each side of the Ramp Extension from underneath using a M8 Hex Head Bolt.
3. Repeat the same steps for the other Ramp Extension on the other Platform.

Add the Drive-up Ramps: SP-7XE only

The SP-7XE comes with four Drive-up Ramps: two per Frame. The SP-7XEF does not come with any Drive-up Ramps, as it is flush mount.

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



To put a Drive-up Ramp into position:

1. Put the pins over the slots in the Base, then move them down into the slots.
All four Ramps come with pins that fit into slots in the Base.
2. Double check to make sure they are correctly seated.

Final Checklist Before Operation

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

3. Review the [Installation Checklist](#) to make sure all steps have been performed.
4. Make sure the Power Unit is getting power from the power source.
5. 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.**
6. Check the Hydraulic System for leaks. Verify all Hydraulic Hoses connections, Hydraulic Fittings, and Auxiliary Port Plugs on the Lift and Power Unit are tight.
7. Check to see that all Anchor Bolts are appropriately shimmed and correctly torqued.
8. 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.

 **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 bump 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 *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 support@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.

About Lifting Points and Lift Blocks

The raised Vehicle must be balanced on Lifting Blocks that ride on the Lift Platform.

 **WARNING** You **must** use all four Lift Blocks when raising a Vehicle. Never use just one, two, or three Lift Blocks 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.

 **WARNING** Do not 'eyeball' the best location for the Adapters. **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 a Two-Post Frame Engaging Lift. Contact the Vehicle's manufacturer for Raising or Jacking guidance.

To balance a Vehicle on a full-rise frame-engaging Lift, the Lift Blocks must contact the Vehicle on the manufacturer's recommended Lifting Points. When you raise a Vehicle by its Lifting Points, the Vehicle is balanced.

NOTICE

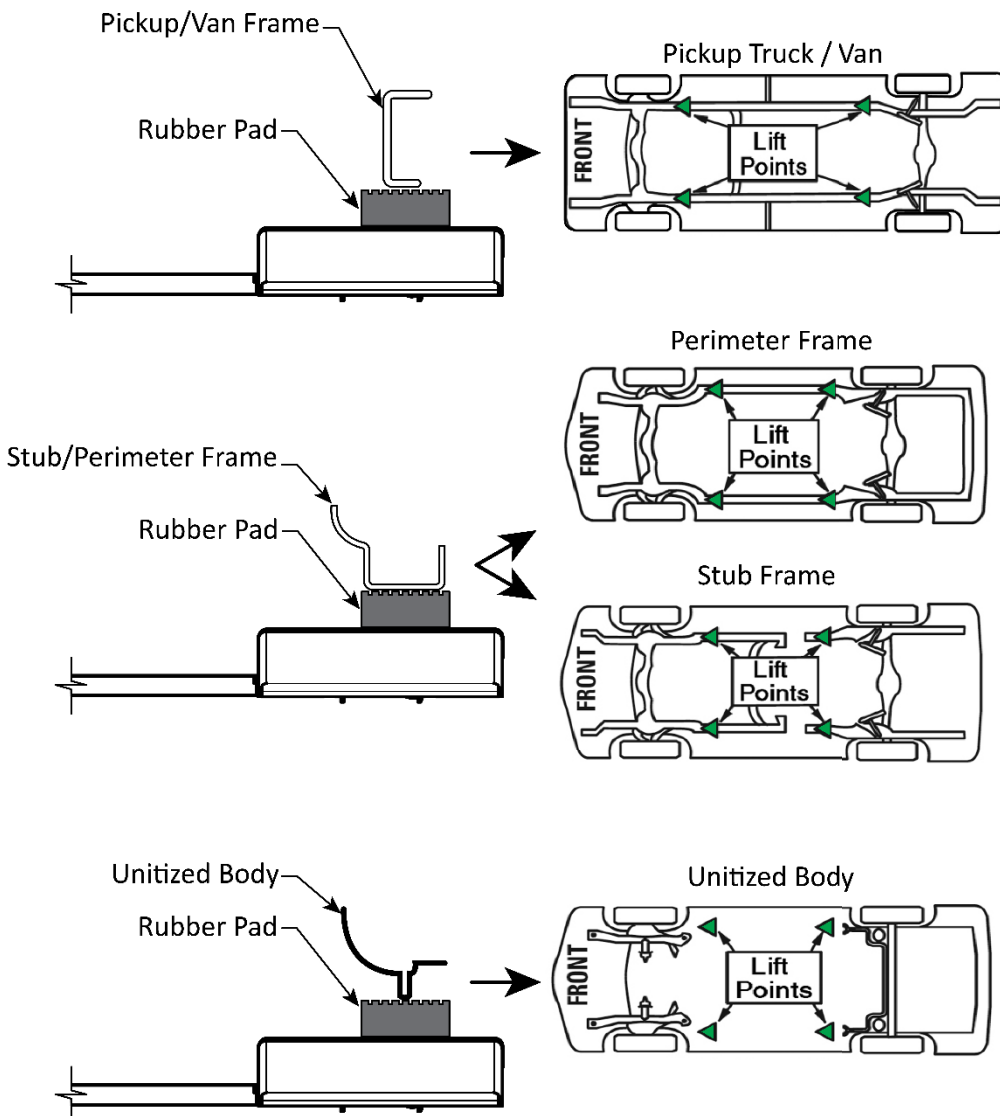
The manufacturer's recommended Lifting Points do not take into consideration any major changes that might have been made to the Vehicle. If the motor is removed, for instance, or there is a 5,000 pound / 2,268 kg weight in the trunk, the Vehicle's Lifting Points will not be the best balancing points.

Some vehicles may have the manufacturer's 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.

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

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

Typical Lifting Points:

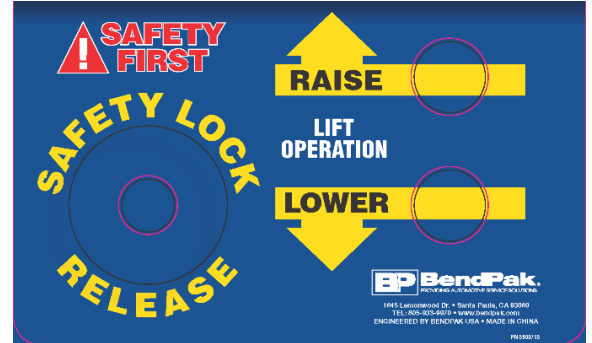


The Console

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.



About Safety Locks

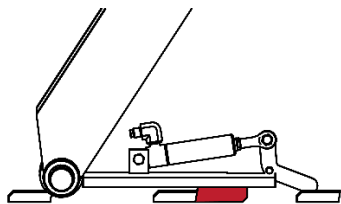
Your lift comes with multiple Safety Lock positions; they serve two important functions:

- **Safety.** Safety Locks hold the SP-7XE Platforms in place. Once your SP-7XE 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-7XE Platforms, and anything on them, in place.

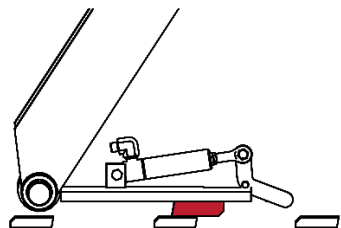
⚠ WARNING Always leave your Lift on a Safety Lock or fully lowered. Although rare, it is possible for Hydraulic Fluid in the Hydraulic Cylinders to leak, causing the Platforms to slowly come down.

Always leave your Lift either fully lowered or engaged on a Safety Lock.

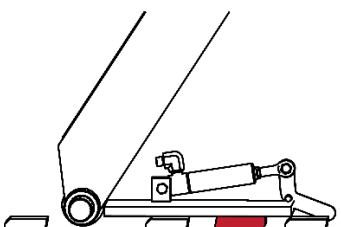
- **Adjustable height.** Having multiple Safety Locks means you can raise the Vehicle to just the right height for the work you are performing.



Locked



Passing



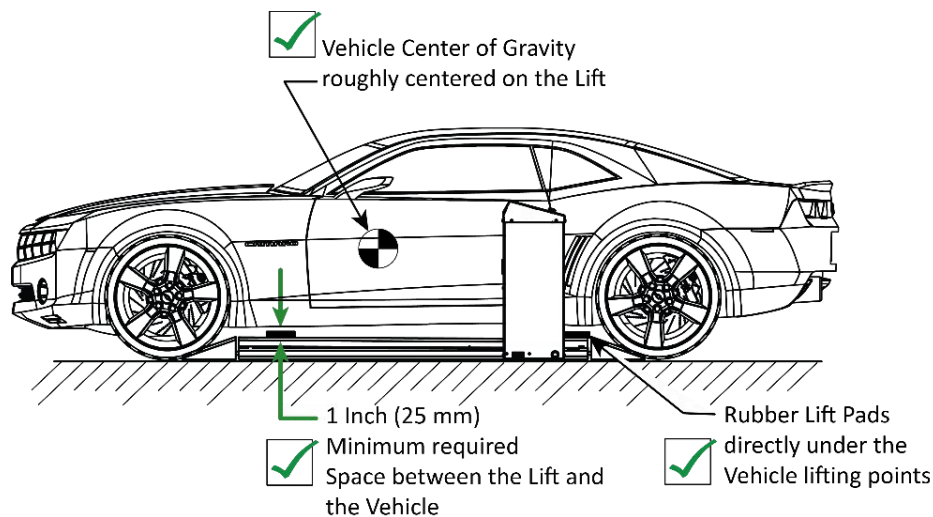
Unlocked

Additional Operation Safety Information

Read and understand the following instructions **before** operating your SP-7XE Series Lift:

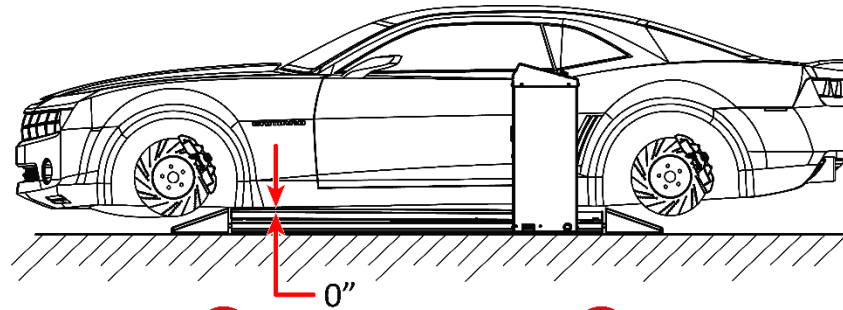
- **Never** exceed the rated capacity of the Lift, 7,000 lbs. / 3,175 kg.
- **Never** exceed the maximum load of 3,500 lbs. / 1,587 kg per each Platform.
- **Always** center the load evenly on the Platforms.
- **Never** operate the Lift with any person or equipment under the Lift.
- **Always** use the Lift in the proper manner. Never use the Lift Adapters in any way other than what is approved by the manufacturer.
- **Always** keep a clear line of sight on the Lift and Vehicle.
- **Always** verify the Vehicle is centered and stable prior to operating the Lift Controls.
- **Always** verify the Safety Locks are engaged before working on or near any Vehicle.
- **Never** leave the Lift in an elevated position unless both Safety Locks are securely engaged and resting on a Safety Lock at the same height.
- **Never** leave the Controls while the Lift is still in motion.
- Do **not** rock the Vehicle while on the Lift or remove any heavy component from Vehicle that may cause excessive weight shift.
- Do **not** permit the Power Unit to get wet. The motor can be damaged and water damage is not covered under the product warranty.
- Always allow a minimum of 2 seconds delay between motor starts. Failure to comply may cause Switch and/or Motor burnout. This could cause serious damage to the equipment and/or personal property.
- If any part of the Vehicle's Lifting Points are **not** completely over the Platform, carefully drive the Vehicle back off the Lift and then drive it back on to reposition it, making sure to keep the Wheels in the middle of the Platforms.

⚠ WARNING You **must** use the Vehicle manufacturer's recommended Lifting Points. If you fail to do so, the Vehicle may become unstable and fall off the Pads and/or the Lift which could damage the Vehicle, the Lift, or injure or kill anyone under the Vehicle.



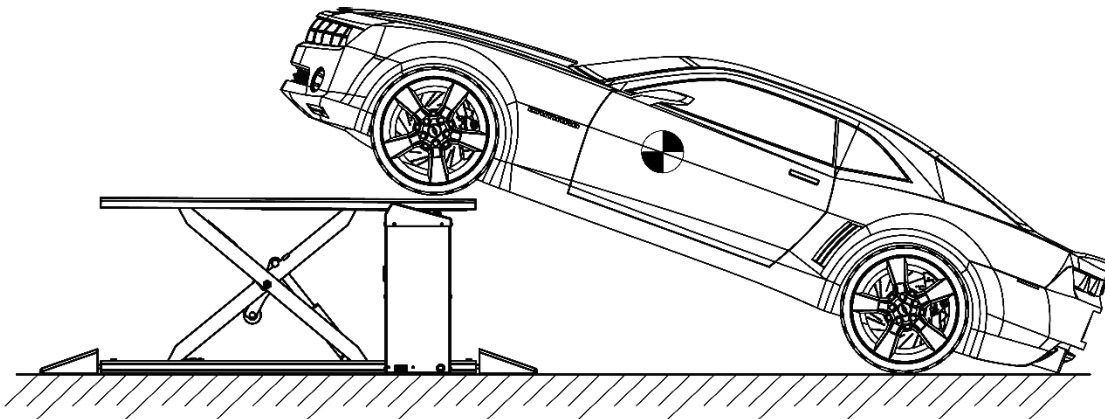
⚠ WARNING Before raising a Vehicle, verify there is at least 1 inch / 25 mm of clearance between the Lift Pads and the Vehicle. The Lift cannot raise a full load from a completely flat starting position and attempting to lift in this manner will damage the Lift and could injure persons nearby.

⚠ WARNING Do **not** 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 will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.



⊘ No Clearance, No Lift ⊘


⚠ WARNING Never raise a Vehicle with the center of Gravity shifted off the Platforms.



⊘ Never lift a Vehicle with the Center of Gravity shifted off the Lift Platforms. ⊘

Raising a Vehicle

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

 **WARNING** Always use care when you are 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 a Drive-up Ramp or a Platform. ***When the Lift is moving, keep all people, animals, and objects at least 30 feet away from 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 center it on the Platforms.
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.

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.

 **WARNING** Do not raise the Lift further until you are certain the Vehicle on the Lift is both stable and balanced. If the Vehicle is not stable and balanced, it could fall, which could damage the Vehicle, damage the Lift, or injure or kill anyone under the Lift.

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

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**.

If you do not press and hold the Safety Lock Release, the Lift will engage on the next Safety Lock.

 **WARNING** Always verify both Safety Locks disengage when the Safety Lock Release button is pressed. If one of the Safety Locks inadvertently engages on descent, the Lift and Vehicle may become unbalanced and can cause serious injury or death.

4. Carefully drive the Vehicle off the Platforms.

Optional Lift Arm Kit

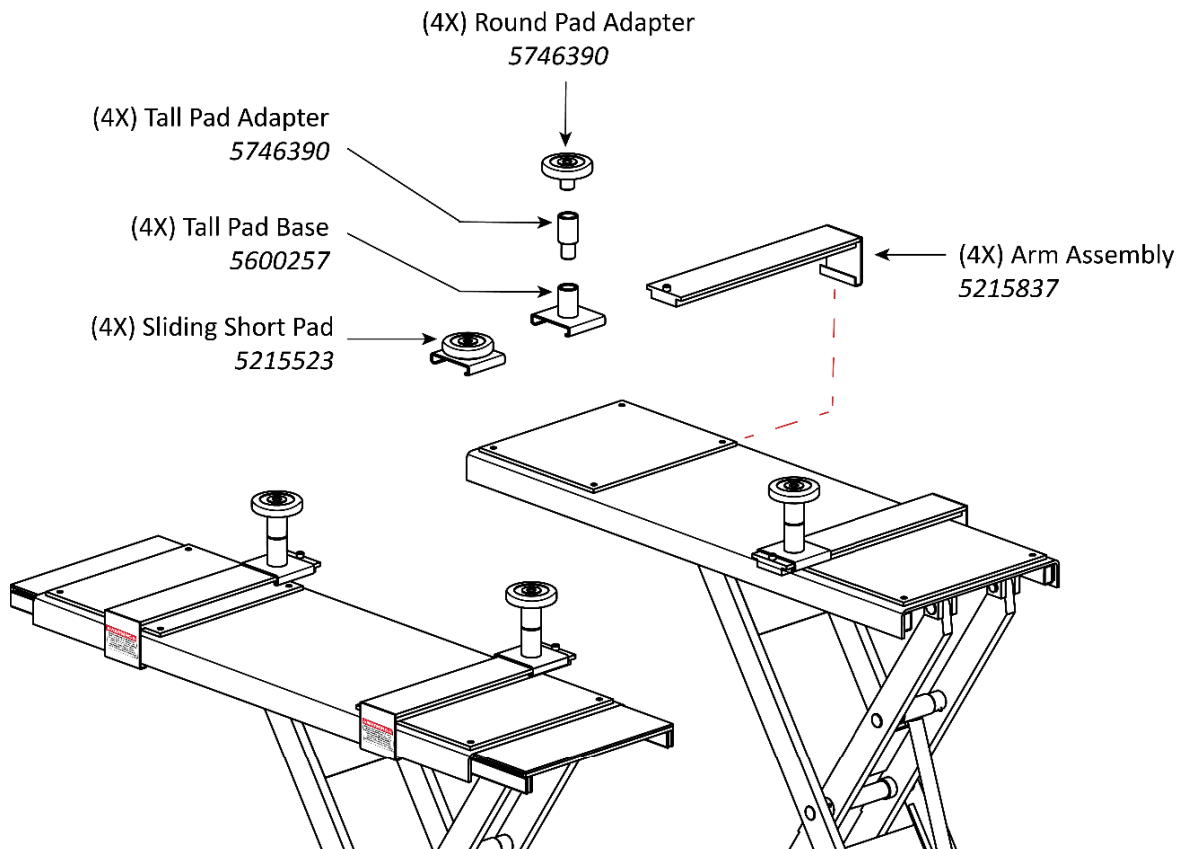
If you purchased the optional Lift Arm Kit, this section describes how to use it.

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, and then position the Pads under the manufacturer's recommended Lifting Points for the Vehicle you are raising.

⚠ DANGER 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 exceed this weight** 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.
- **Monthly:** If the Lift has experienced little or no use during the month, run the Lift up and down several times. This action will wet the Cylinder Seals and improve their elasticity.
- **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 support@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 **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. The Hydraulic Cylinders are self-bleeding.
Platforms are stuck in the up position and will not lower with the Vehicle on the Lift.	Verify the Power Unit is being supplied electrical power and that none of the Hydraulic Hoses are pinched or leaking. Verify there is sufficient Hydraulic Fluid in the Reservoir on the Power Unit. Contact BendPak Service bendpak.com/support , or call (800) 253-2363 , extension 196.
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. Lubricate the Platforms where the Slide Blocks travel 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). Only leave the Lift either fully lowered or engaged on a Safety Lock.

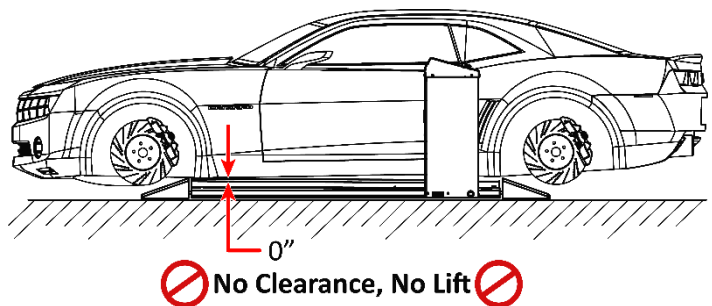
If you continue to have problems with your Lift, contact your dealer, visit bendpak.com/support, email support@bendpak.com, or call **(800) 253-2363**, extension 196.

Vehicles with No Tires – Fully Lowered

When the SP-7XE Series Lift is completely flat with a vehicle directly on the Platforms, there is no room to develop any mechanical upward force. The weight on the Lift must be reduced by at least half or raise the Vehicle off the Lift Platform or Lift Pads in some other manner.

Methods that have resolved this issue include:

- Use a floor jack to raise the Vehicle from 4 to 6 inches.
- Using lifting equipment to raise the Vehicle. If you are still unable to raise your Vehicle, contact BendPak Technical Support for assistance.



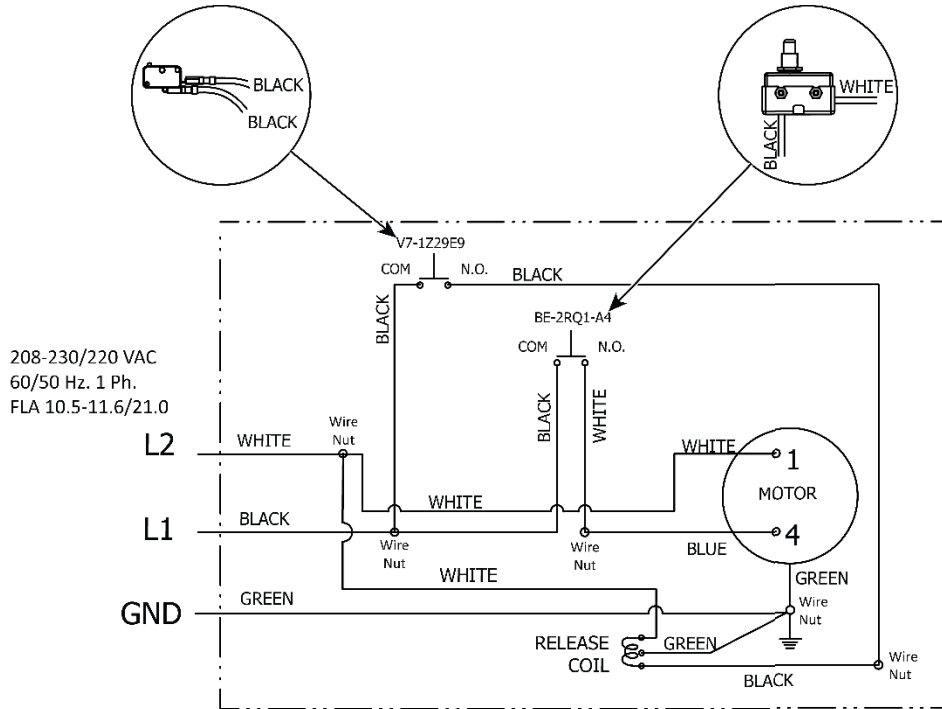
Wiring Diagrams



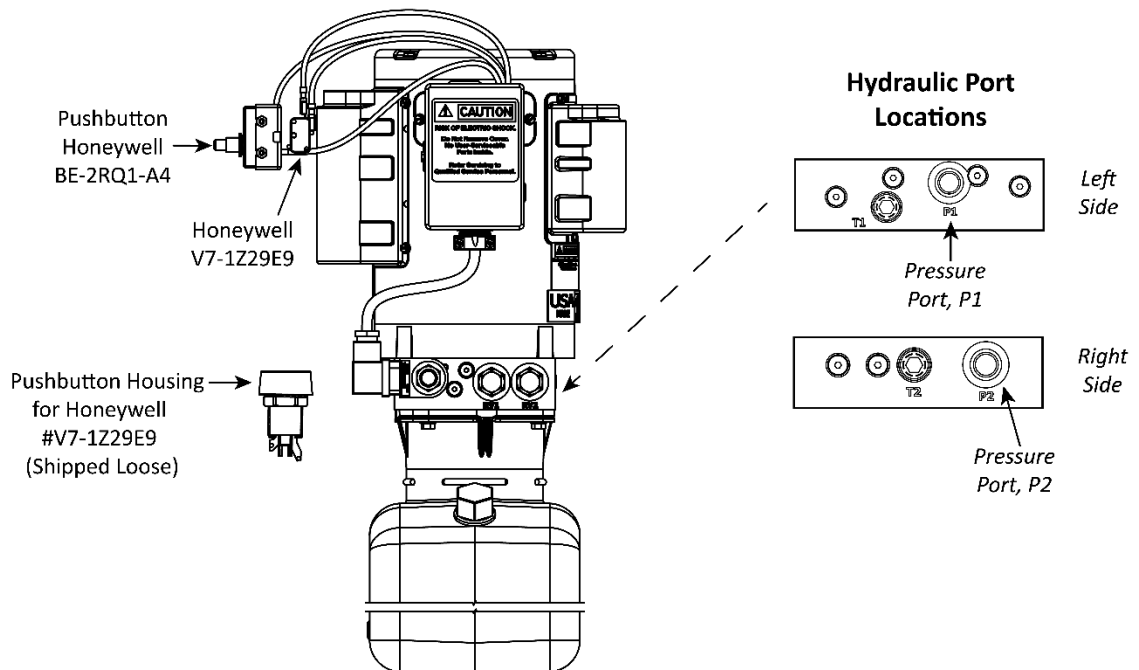
WARNING

All electrical work must be performed by a licensed, certified Electrician in accordance with all applicable local and national electrical codes. **Damage caused by improper electrical installation may void your warranty.**

5585442



Electrical Schematic

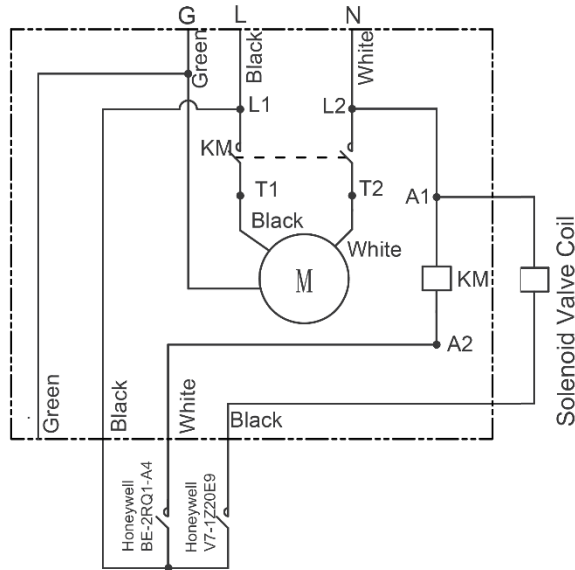


⚠ WARNING

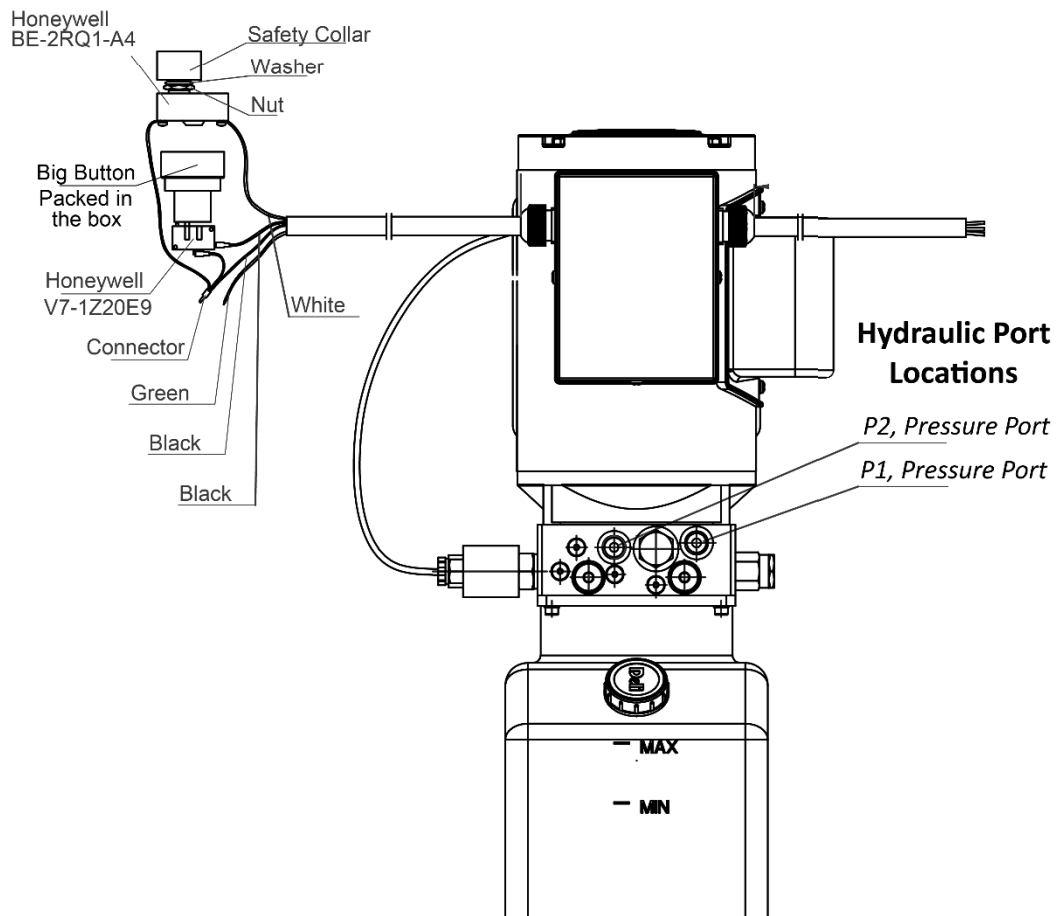
All electrical work must be performed by a licensed, certified Electrician in accordance with all applicable local and national electrical codes. **Damage caused by improper electrical installation may void your warranty.**

5585022

208-240VAC
1 Ph., 50/60Hz. 3HP



Electrical Schematic



Labels

A

⚠ WARNING

FAILURE TO READ, UNDERSTAND, AND FOLLOW INSTRUCTIONS AND WARNINGS MAY RESULT IN SERIOUS PERSONAL INJURY AND/OR PROPERTY DAMAGE.

- ✓ Never exceed rated capacity or lift.
- ✓ DO NOT operate lift if any component is found to be defective or worn.
- ✓ Never operate lift with any sensor or equipment failure.
- ✓ Always ensure load is centered and stable prior to operating scissor.
- ✓ Always verify safety codes are engaged when working on or near lift.
- ✓ Never raise lift in a restricted position unless all safety locks are engaged.
- ✓ Do not permit students to get over height markings caused by overpress in not covered under warranty.

OPERATING INSTRUCTIONS

Model	Max. Lifting Capacity	TO RAISE LIFT
MDS-SLP	6,000 lbs. / 2,722 kg	1. Position vehicle on level or gently level center of lifting platform.
MDS-SLFP		2. Set parking brake and use wheel chock to hold vehicle in location.
MDS-SEXT		3. Before exiting vehicle, be sure all persons exit area of lift and surrounding area. Pay careful attention to overhead clearances.
MDS-SEXTF	7,000 lbs. / 3,175 kg	4. Raise lift in desired height by depressing RAISE button.
SP-7XL		5. Maximize crane capacity with no lift and a maximuming rate of different lifting or lowering lift.
SP-7XL	9,000 lbs. / 4,082 kg	6. STOP IMMEDIATELY if load is too or becomes unbalanced.
PRODUCT		7. At all times, be sure to disengage height limit if you the vehicle safety tools.
PRODUCT		8. ALWAYS ENSURE ALL SAFETY LOCKS ARE ENGAGED before or during work area.

TO LOWER LIFT

1. Before lowering vehicle, be sure all persons, tools and equipment are clear of lift area and platform.
2. Lower lift by pressing RAISE button. Be sure lift is not too close to allow 450-500 lbs. for the lift to stop.
3. Press and HOLD SAFETY LOCK RELEASE button.
4. Lower scissor by pressing LOWER button until lift has descended completely.
5. When lowering lift, **MAKE SURE** that all personnel and objects are not under or in lift area surrounding area.
6. **ALWAYS** keep a visual line of sight on lift **AT ALL TIMES**.
7. **ALWAYS** make sure the ALL LOCKS are disengaged if one of the locks is mounted by a sensor or system. It is under either a key through control or time delay to reach.

RAISE

↑

LIFT OPERATION

↓

LOWER

SAFETY FIRST

SAFETY LOCK RELEASE

BP BendPak

TEL: 866-633-9970 • www.bendpak.com
10415 Lomwood Dr. • Santa Paula, CA 91360
ENGINEERED BY BENDPAK USA • MADE IN CHINA

B



C

CAUTION!

Maximum load on scissor lifts should **NOT** exceed 3,500 pounds per side. Always center the load evenly. **NEVER** attempt to work on or near a vehicle when it is raised on the scissors unless the safety latches are engaged on each scissor unit.

P/N 5905524

D

BP BendPak Santa Paula, CA USA
www.bendpak.com

MODEL NUMBER _____

DESCRIPTION _____

LIFT CAPACITY _____ DATE CODE _____

VOLTAGE	SERIAL NUMBER
<input type="checkbox"/> 110-120V, 50-60 Hz, 1 Ph	_____
<input type="checkbox"/> 208-240V, 50-60 Hz, 1 Ph	
<input type="checkbox"/> 380-415V, 50-60 Hz, 3 Ph	
<input type="checkbox"/> 208-440V, 50-60 Hz, 3 Ph	
UPC _____	

⚠ DANGER!
Disconnect Power Before Servicing

EAC

MADE IN CHINA WARRANTY VOID IF DATA PLATE IS REMOVED P/N 5905551

E

BP BendPak SANTA PAULA, CA USA
www.bendpak.com

LIFT TYPE: SURFACE MOUNT CAP: MED/HV DTY MFG. BPK SEE DATA PLATE FOR PRODUCT DETAILS

POWER: ELECTRIC/HYDRAULIC INSTALLATION - SEE OWNERS GUIDE OR CONTACT FACTORY

SAFETY INSTRUCTIONS: IF ATTACHMENTS, ACCESSORIES OR CONFIGURATION, MODIFYING COMPONENTS THAT ARE LOCATED IN THE LOAD PATH, AFFECT OPERATION OF THE LIFT, AFFECT THE LIFT ELECTRICAL LISTING OR AFFECT INTENDED VEHICLE ACCOMMODATION ARE USED ON THIS LIFT 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.

BENDPAK LIFTS ARE SUPPLIED WITH CONCRETE FASTENERS MEETING THE CRITERIA AS PRESCRIBED BY ASTM E888 - 08(2009). LIFT BUYERS ARE RESPONSIBLE FOR ANY SPECIAL, REGIONAL, STRUCTURAL AND/OR SEISMIC ANCHORING REQUIREMENTS SPECIFIED BY ANY OTHER AGENCIES AND/OR CODES SUCH AS THE INTERNATIONAL BUILDING CODE (IBC) AND/OR INTERNATIONAL BUILDING CODE (IBC).

THE MANUFACTURE, USE, SALE OR IMPORT OF THIS PRODUCT MAY BE SUBJECT TO ONE OR MORE UNITED STATES PATENTS, OR PENDING APPLICATIONS, OWNED BY BENDPAK, INC.

DO NOT REMOVE ENGINEERED BY BENDPAK INC. USA MADE IN CHINA

F

⚠ WARNING

SLIPPERY WHEN WET OR ICY

Use caution when driving onto wet or icy drive-up ramps and platforms. **DO NOT** walk on lift surfaces that are wet or icy.

⚠ AVERTISSEMENT

GLISSANT LORSQU'IL EST MOUILLÉ OU GLACÉ

Soyez prudent lorsque vous conduisez sur des rampes d'accès mouillées ou verglacées et les plateformes. **NE PAS** marcher sur des surfaces de levage humides ou glacées.

G



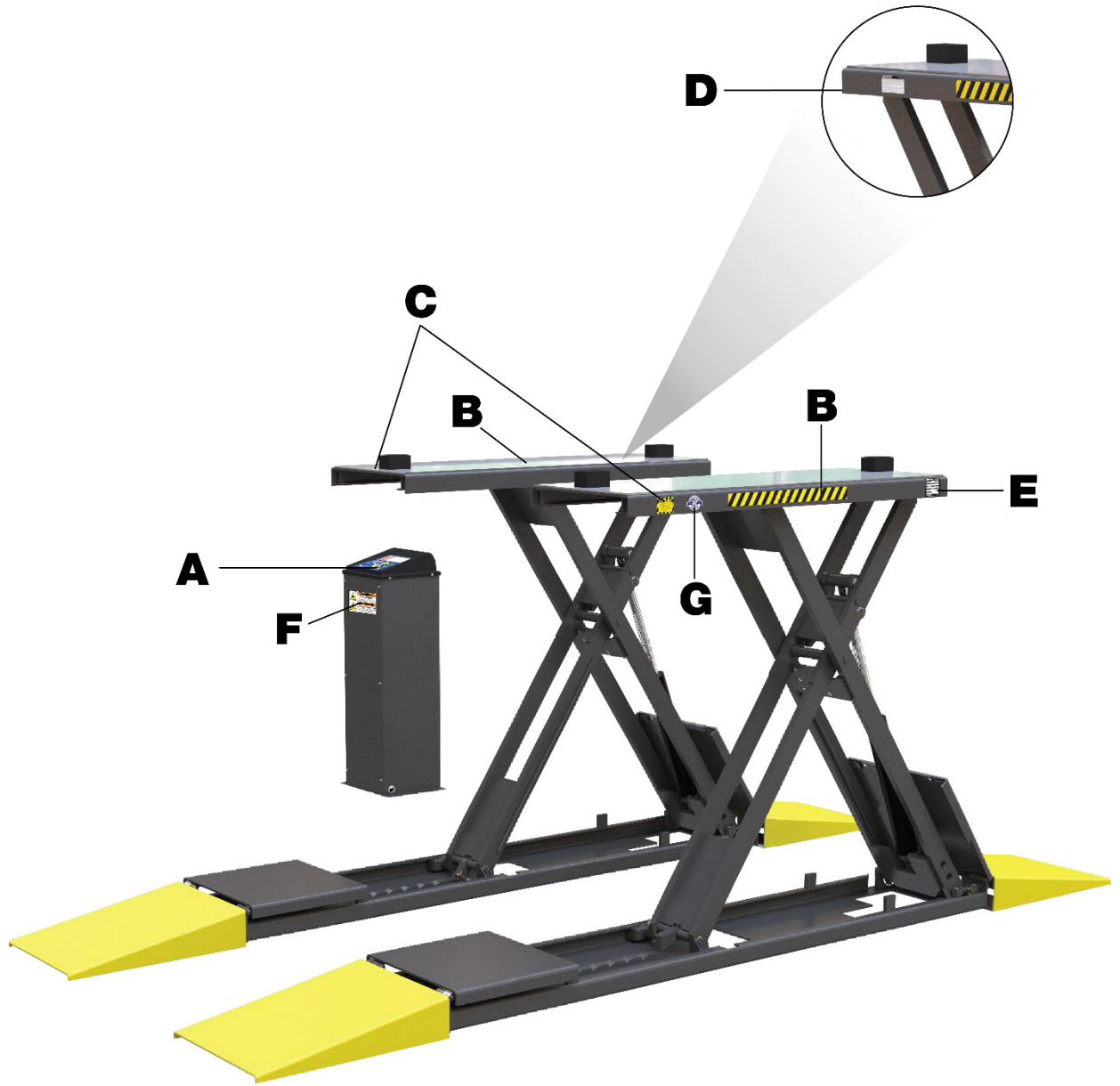
CALIFORNIA PROPOSITION 65

⚠ WARNING ⚠

WARNING! 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 the manufacturer's instructions.

For more information, go to www.p65warnings.ca.gov. P/N 5905775

**Prop 65 on packaging*



Parts Diagrams

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5216132	SP-7XE RAMP ASSEMBLY	2	B
2	5250110	SP-7XE PARTS BOX	1	G
3	5600263	SP-7XE DRIVE UP RAMP WELDMENT	4	C
4	5215781	TALL POWER UNIT CONSOLE ASSEMBLY	1	F
5	5601099	MDS-6/SP-7XE INNER FLOOR TROUGH WELDMENT	1	D
6	5601098	SP-7XE/MDS-6EXT/LP OUTER FLOOR TROUGH WELDMENT	1	C
7	5210257	SP-7XE RAMP EXTENSION KIT	2	A

DO NOT SCALE DRAWING		NAME	DATE	BP BendPak. 645 LEWISWOOD DR SANTA PAULA, CA 95060
DRAWN	TM	03/30/2022		
DIMENSIONS ARE 1:MM		THIRD ANGLE PROJECTION		TITLE: SP-7XE PRODUCTION LIFT VER B
				SIZE: DWG. NO. 5260681 REV B
<small>PROPRIETARY AND CONFIDENTIAL BENDPAK INC. AND ITS AFFILIATES RESERVE THE RIGHT TO MAKE CHANGES WITHOUT NOTICE TO ANY PRODUCT OR SERVICE OF BENDPAK INC. OR ITS AFFILIATES.</small>				SCALE: 1:28 SHEET 1 OF 3

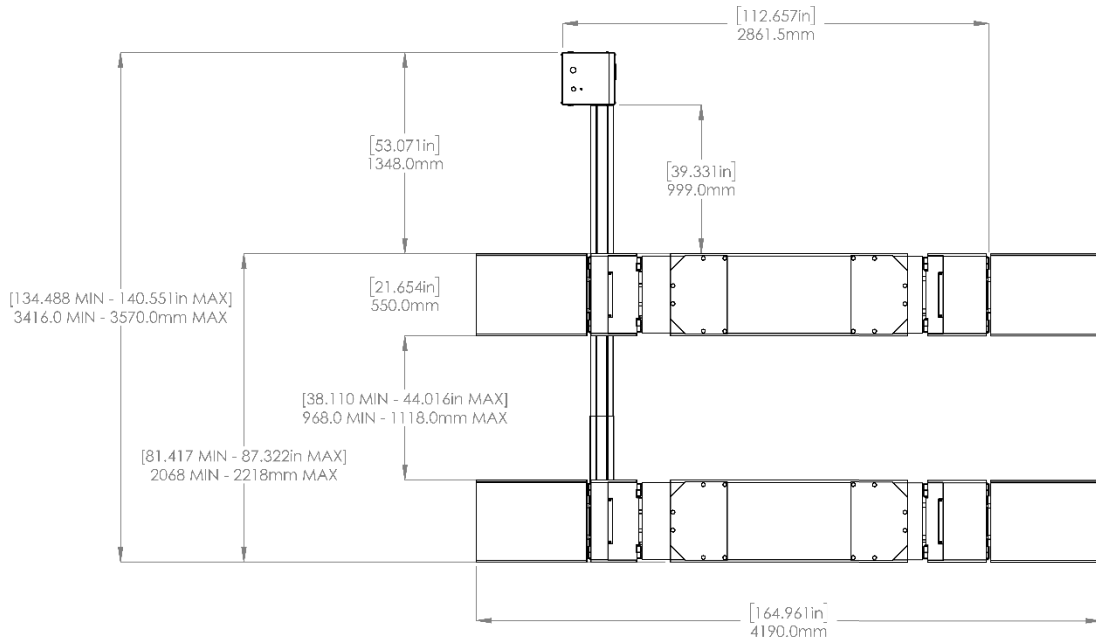
FULL RISE
 [3.937in] 100.0mm
 [7.500in] 190.5mm
 [70.473in] 1790.0mm
 [62.598 MIN - 74.035in MAX] 1590.0 MIN - 1880.5mm MAX

TOP LOCK
 [69.792in] 1772.7mm

LOWEST LOCK
 [24.513in] 622.6mm

FULLY LOWERED
 [6.351in] 161.3mm

BP BendPak. 645 LEWISWOOD DR, SANTA PAULA, CA 95060	
TITLE: SP-7XE PRODUCTION LIFT VER B	
SIZE: DWG. NO. A 5260681	REV B
SCALE: 1:30 SHEET 2 OF 3	

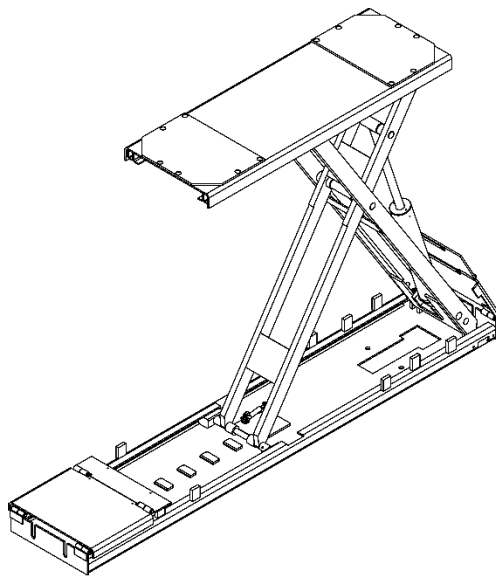


BP BendPak
 1645 LEMONWOOD DR.
 SANTA PAULA, CA 93560

TITLE: **SP-7XE PRODUCTION LIFT VER B**

SIZE DWG. NO. **A 5216081** REV **B**

SCALE: 1:30 SHEET 3 OF 3



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601804	SP-7XE BASE WELDMENT	1	A
2	5620278	SP-7XE OUTER SCISSOR ARM WELDMENT	1	C
3	5746449	SP-7XE CYLINDER BOTTOM PIN	1	A
4	5215485	SP-7XE INNER ARM ASSEMBLY	1	C
5	5716150	SP-7XE SLIDE BLOCK, BOTTOM	2	C
6	5737243	SP-7XE SAFETY ROCKER ARM	1	A
7	5550087	FIG ELB -04 COMP x -02 NPT	1	--
8	5502195	AIR CYLINDER, Ø19mm x 25 STROKE	1	--
9	5505625	FEMALE ROD END M6 x 33	1	--
10	5545005	WASHER, M6 x 12mm FLAT	2	--
11	5535357	NUT M6 x 1.0 NL	15	--
12	5530093	HHB M6 x 1.0 x 20mm	1	--
13	5530757	HHB M6 x 1.0 x 40	1	--
14	5716155	SP-7XE SLIDE BLOCK, TOP	2	B
15	5805727	SP-7XE MAIN SCISSOR PIVOT PIN	1	A
16	5802021	CYLINDER ASSEMBLY Ø3.5 x 20.49	1	F
17	5746448	SP-7XE CYLINDER TOP PIN	1	A
18	5601653	SP-7XE RAMP WELDMENT	1	B
19	5746610	SP-7XE RAMP ANCHOR PIN	2	B
20	5216040	SP-7XE RAMP COVER ASSEMBLY, CYLINDER SIDE	1	A
21	5216041	SP-7XE RAMP COVER ASSEMBLY, SAFETY SIDE	1	A
22	5540006	SNAP RING TRUARC 5103-100	2	--
23	5605716	SP-7XE RAMP COVER HINGE PIN	4	B
24	5840116	TRUARC, Ø12mm 5103 90	4	--
25	5545347	WASHER M12 x 24mm FLAT, CL 8.8	4	--
26	5530395	FIG TEE -04 COMP x -04 COMP x -04 COMP	1	--
27	5530372	SSS M8 x 1.25 x 20 EXTENDED NL	8	--
28	5755145	TUBE, Ø44 x Ø38 x 138mm	1	B
29	5746450	SP-7XE SCISSOR BOTTOM PIN	2	A
30	5715050	SP-7 RAMP BOLT-ON RUBBER PAD	2	A
31	5530466	ELEVATOR BOLT M6 x 1.0 x 30	8	--
32	5530364	ELEVATOR BOLT M6 x 1.0 x 25	4	--

DO NOT SCALE DRAWING

NAME: IM DATE: 03/30/2022
 CHECKED: OR DATE: 08/26/2022

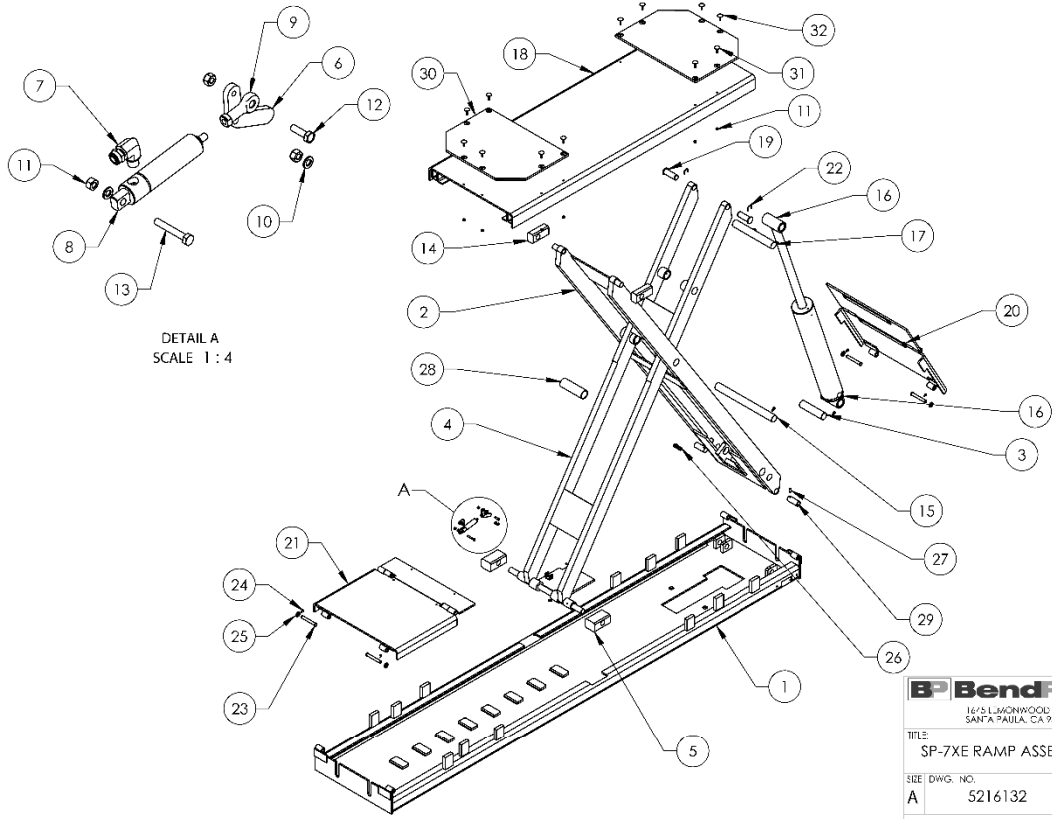
BP BendPak
 1645 LEMONWOOD DR.
 SANTA PAULA, CA 93560

TITLE: **SP-7XE RAMP ASSEMBLY**

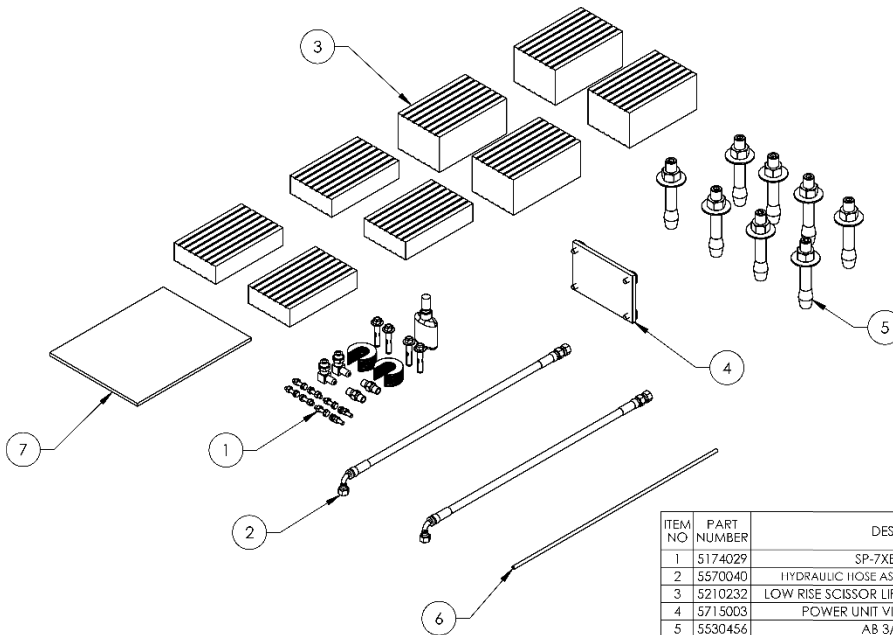
SIZE DWG. NO. **A 5216132** REV **B**

SCALE: 1:20 SHEET 1 OF 2

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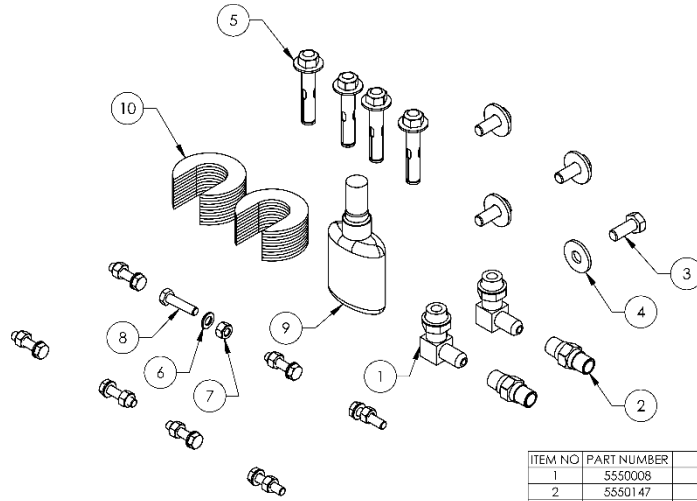


BP BendPak	
1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE: SP-7XE RAMP ASSEMBLY	
SIZE DWG. NO.	REV
A 5216132	B
SCALE: 1:20	SHEET 2 OF 2



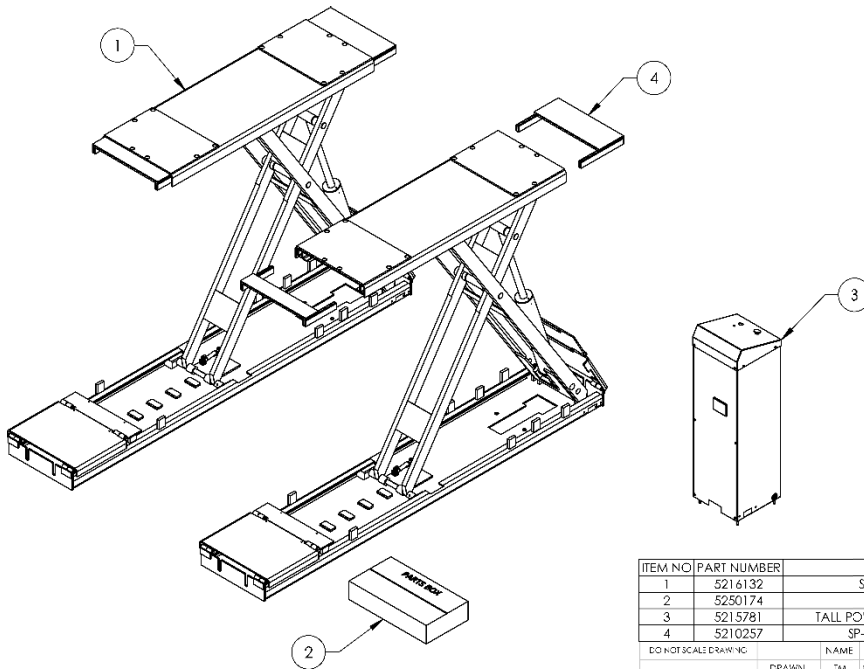
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1	5174029	SP-7XE PARTS BAG	1	F
2	5570040	HYDRAULIC HOSE ASSEMBLY Ø6.35 x 4270mm SB	2	D
3	5210232	LOW RISE SCISSOR LIFT RUBBER PAD KIT, SET OF 8	1	A
4	5715003	POWER UNIT VIBRATION DAMPENER	1	B
5	5530456	AB 3/4" x 4 - 3/4"	8	-
6	5570795	1/4" POLY-FLO TUBING	10820mm*	-
7	5900010	SP-7XE INSTALLATION MANUAL	1	-

DO NOT SCALE DRAWING	NAME	DATE	BP BendPak 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
	DRAWN: TM	06/19/2017	
	CHECKED: GR	07/01/2022	
THIRD ANGLE PROJECTION	THIRD ANGLE PROJECTION		TITLE: SP-7XE PARTS BOX
	SIZE DWG. NO.	REV	
	A 5250110	G	
SCALE: 1:8		SHEET 1 OF 1	



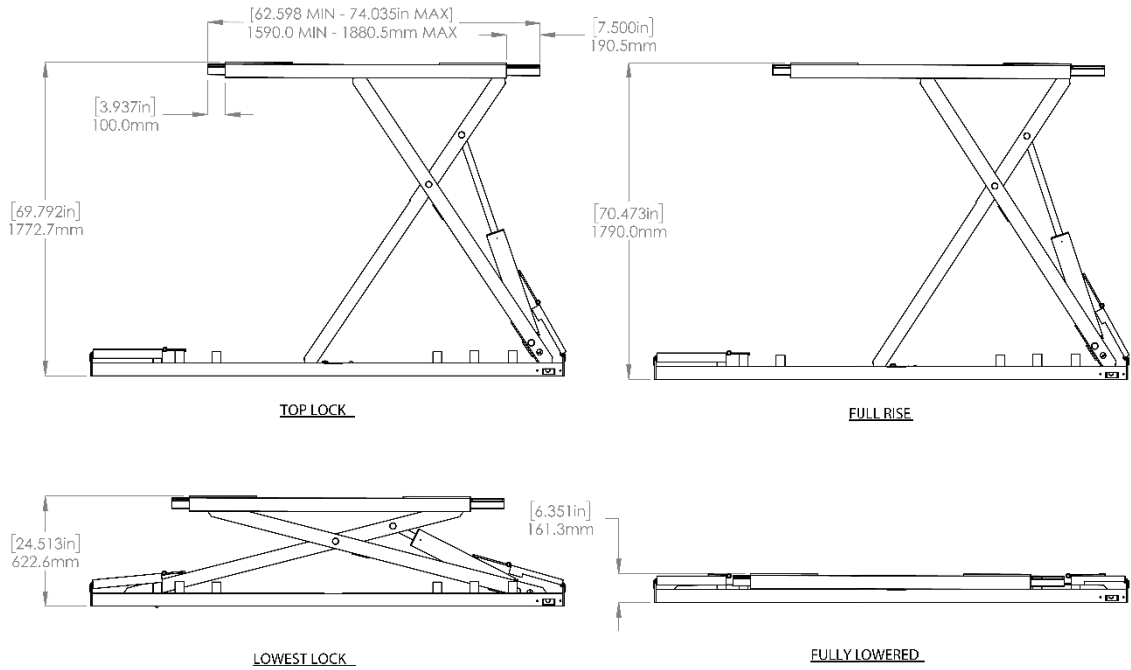
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1	5550008	FTG ELB -04 JIC -06L ORB	2	--
2	5550147	FTG NPL -04 JIC x- 04 NPT	2	--
3	5530304	HHB M8 x 1.25 x 20	4	--
4	5545340	WASHER M8 X24 FLAT	4	--
5	5530326	AB Ø3/8" x 2-1/4"	4	--
6	5545005	M6 FLAT WASHER	8	--
7	5535357	NUT M6 x 1.0 NL	8	--
8	5530756	HHB M6 x 1 x 25	8	--
9	5580012	LIQUID PTFE THREAD SEALANT 50ml	1	--
10	5545535	C WASHER SHIM FOR LIFTS	20	--

DO NOT SCALE DRAWING		NAME	DATE	 1645 ELMONWOOD DR. SANTA PAULA, CA 93060
DRAWN	TM	06/19/2012		
DIMENSIONS ARE IN MM		CHECKED	OR	07/01/2002
THIRD ANGLE PROJECTION		TITLE		SP-7XE PARTS BAG
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		A	5174029	F
SCALE: 1:3			SHEET 1 OF 1	

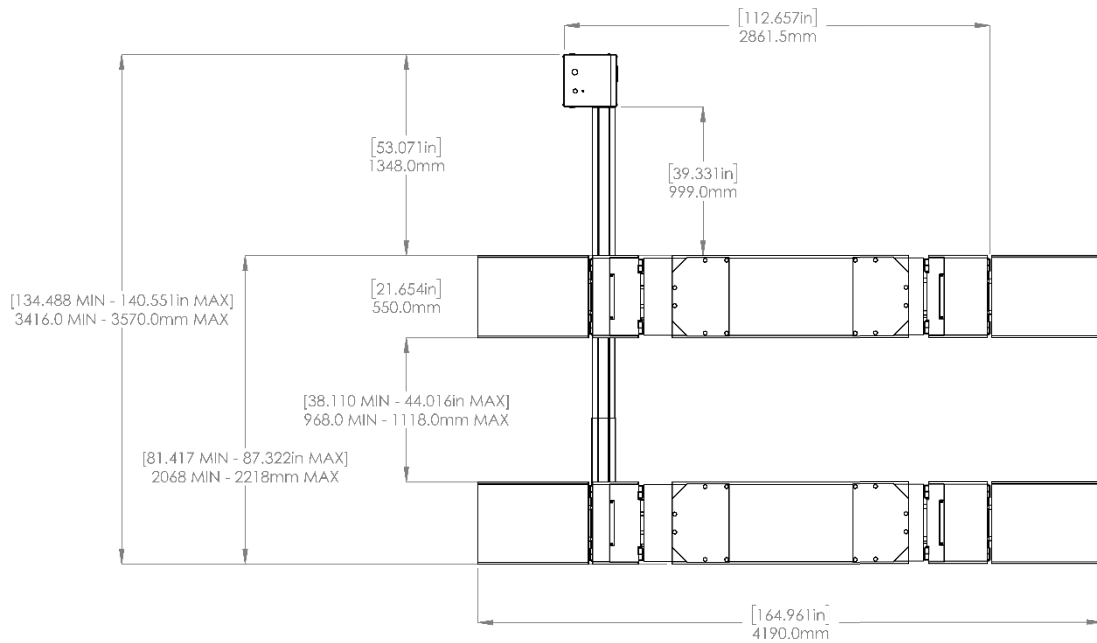


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5216132	SP-7XE RAMP ASSEMBLY	2	B
2	5250174	SP-7XEF PARTS BOX	1	G
3	5215781	TALL POWER UNIT CONSOLE ASSEMBLY	1	F
4	5210257	SP-7XE RAMP EXTENSION KIT	2	A

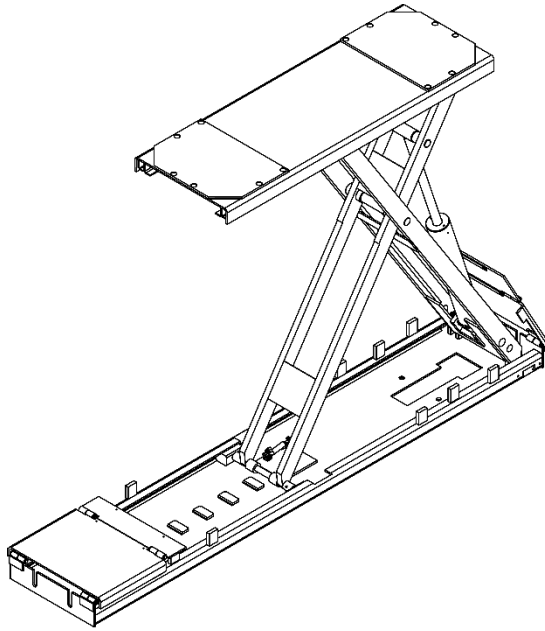
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DRAWN	TM	05/30/2022		
DIMENSIONS ARE IN MM		CHECKED		
THIRD ANGLE PROJECTION		TITLE		SP-7XEF PRODUCTION LIFT VER B
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		A	5260682	B
SCALE: 1:25			SHEET 1 OF 3	



BP BendPak	
1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE: SP-7XE PRODUCTION LIFT VER B	
SIZE DWG. NO.	REV
A 5260682	B
SCALE: 1:25	SHEET 2 OF 3

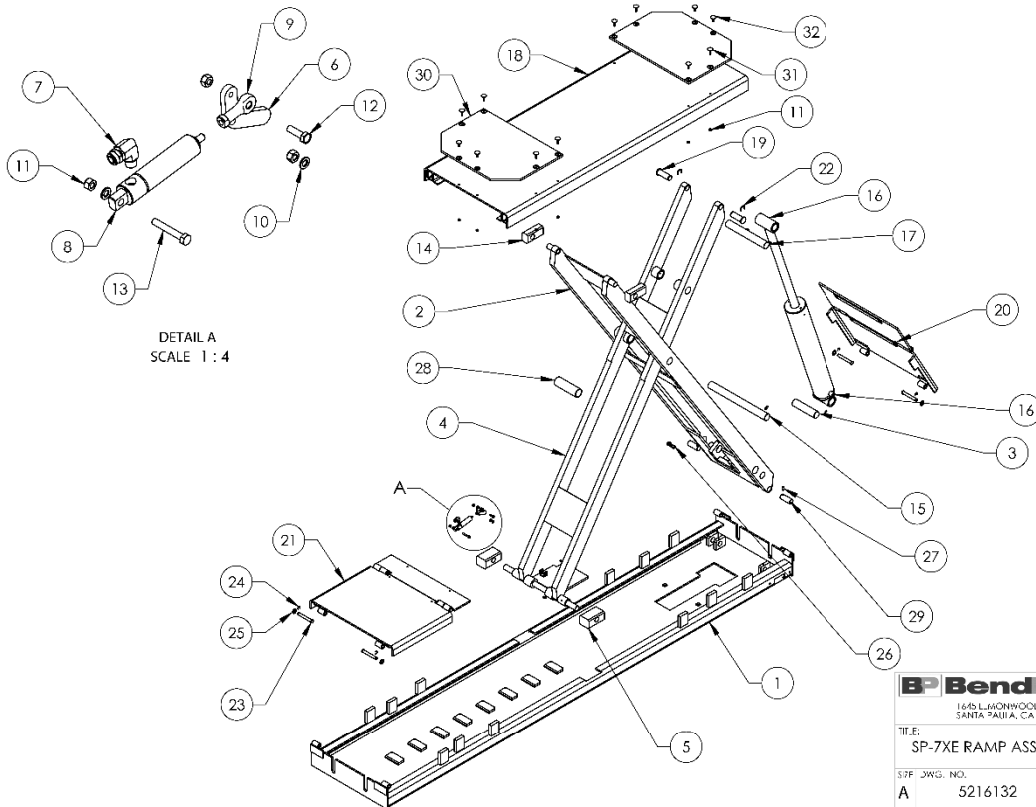


BP BendPak	
1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE: SP-7XE PRODUCTION LIFT VER B	
SIZE DWG. NO.	REV
A 5260681	B
SCALE: 1:30	SHEET 3 OF 3

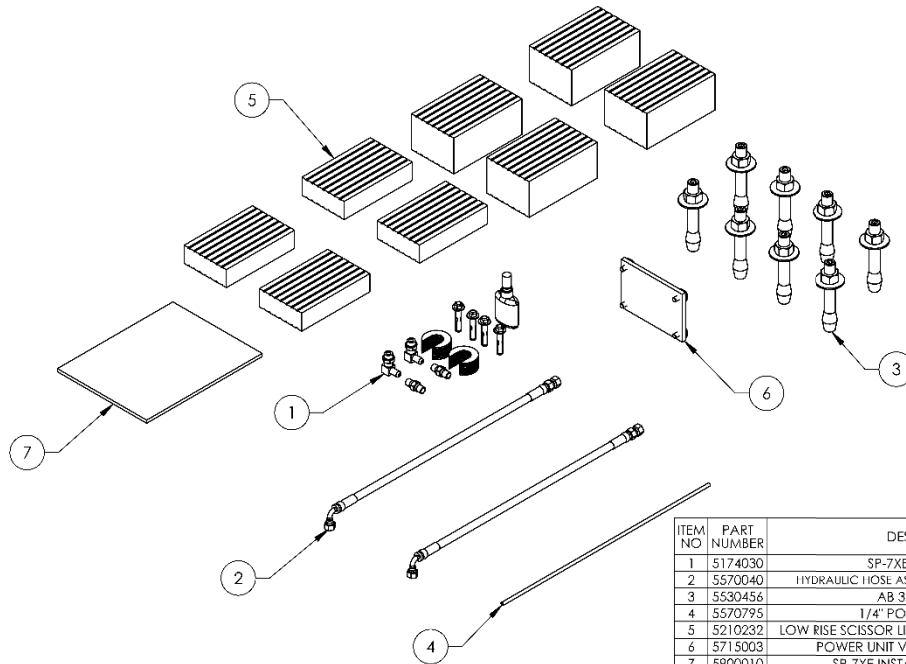


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601804	SP-7XE BASE WELDMENT	1	A
2	5620278	SP-7XE OUTER SCISSOR ARM WELDMENT	1	C
3	5746449	SP-7XE CYLINDER BOTTOM PIN	1	A
4	5215485	SP-7XE INNER ARM ASSEMBLY	1	C
5	5716150	SP-7XE SLIDE BLOCK, BOTTOM	2	C
6	5737243	SP-7XE SAFETY ROCKER ARM	1	A
7	5550087	FTG ELB -04 COMP x -02 NPT	1	--
8	5502195	AIR CYLINDER, Ø19mm x 25 STROKE	1	--
9	5505625	FEMALE ROD END M6 x 33	1	--
10	5545005	WASHER, M6 x 12mm FLAT	2	--
11	5535357	NUT M6 x 1.0 NL	15	--
12	5530093	HHB M6 x 1.0 x 20mm	1	--
13	5530757	HHB M6 x 1.0 x 40	1	--
14	5716155	SP-7XE SLIDE BLOCK, TOP	2	B
15	5505727	SP-7XE MAIN SCISSOR PIVOT PIN	1	A
16	5502021	CYLINDER ASSEMBLY Ø3.5 x 20.49	1	F
17	5746448	SP-7XE CYLINDER TOP PIN	1	A
18	5601653	SP-7XE RAMP WELDMENT	1	B
19	5746610	SP-7XE RAMP ANCHOR PIN	2	B
20	5216040	SP-7XE RAMP COVER ASSEMBLY, CYLINDER SIDE	1	A
21	5216041	SP-7XE RAMP COVER ASSEMBLY, SAFETY SIDE	1	A
22	5540006	SNAP RING TRIARC 5103-100	2	--
23	5505716	SP-7XE RAMP COVER HINGE PIN	4	B
24	5540116	TRIARC Ø12mm 5103-50	4	--
25	5545347	WASHER M12 x 24mm FLAT, CL 8.8	4	--
26	5550395	FTG TEE -04 COMP x -04 COMP	1	--
27	5530372	SSS M8 x 1.25 x 20 EXTENDED NL	8	--
28	5755145	TUBE, Ø44 x Ø38 x 138mm	1	B
29	5746450	SP-7XE SCISSOR BOTTOM PIN	2	A
30	5715050	SP-7 RAMP BOLT-ON RUBBER PAD	2	A
31	5530466	ELEVATOR BOLT M6 x 1.0 x 30	8	--
32	5530364	ELEVATOR BOLT M6 x 1.0 x 25	4	--

DRW NO: SCAL=1:1 MAX K.G	NAME	DATE	 1645 LEMONWOOD DR. SANTA PAULA, CA 93066
DRW: 5302 AS A & B IN MAP	DRAWN	TM 03/30/2022	
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	THIRD ANGLE PROJECTION	SIZE	DWG. NO.
	A	5216132	B
	SCALE: 1:20		SHEET 1 OF 2



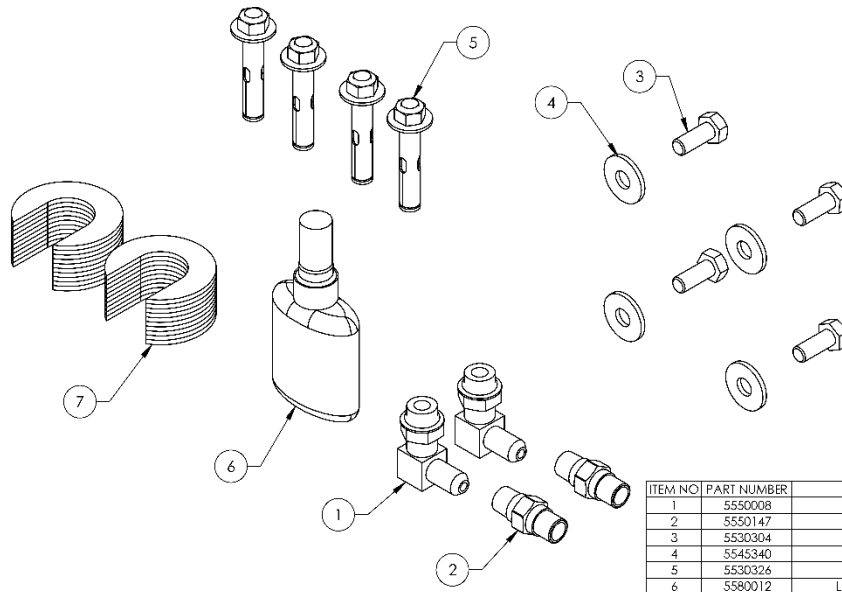
 1645 LEMONWOOD DR. SANTA PAULA, CA 93066	
TITLE: SP-7XE RAMP ASSEMBLY	
SIZE	DWG. NO.
A	5216132
REV	B
SCALE: 1:20	
SHEET 2 OF 2	



WHERE USED
SP-7XE/F

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5174030	SP-7XE/F PARTS BAG	1	F
2	5570040	HYDRAULIC HOSE ASSEMBLY Ø6.35 x 42/0mm SB	2	D
3	5530456	AB 3/4" x 4 - 3/4"	8	-
4	5570795	1/4" POLY-FLO TUBING	10820mm*	-
5	5210232	LOW RISE SCISSOR LIFT RUBBER PAD KIT, SET OF 8	1	A
6	5715003	POWER UNIT VIBRATION DAMPENER	1	B
7	5900010	SP-7XE INSTALLATION MANUAL	1	-

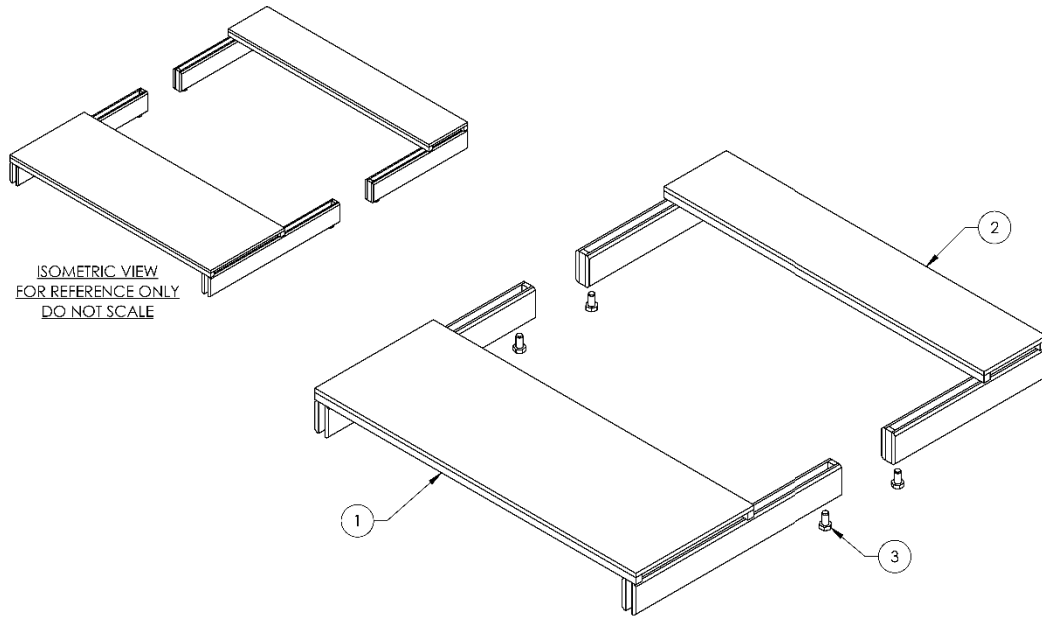
DO NOT SCALE DRAWING	NAME	DATE	BP BendPak 1645 LEMONWOOD DR. SANTA PAULA, CA 93065
	DRAWN TM	06/21/2017	
DIMENSIONS ARE IN MM	CHECKED CR	04/ 4/2020	TITLE: SP-7XE/F PARTS BOX
THIRD ANGLE PROJECTION			SIZE DWG. NO. A 5250174
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			SCALE: 1:8 SHEET 1 OF 1



WHERE USED
SP-7XE/F

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5550008	FTG ELB -04 JIC -06L ORB	2	-
2	5550147	FTG NPL -04 JIC x -04 NPT	2	-
3	5530304	HHB M8 x 1.25 x 20	4	-
4	5545340	WASHER M8 x24 FLAT	4	-
5	5530326	AB Ø3/8" x 2-1/4"	4	-
6	5580012	LIQUID PTFE THREAD SEALANT 50ml	1	-
7	5545535	C WASHER SHIM FOR LIFTS	20	-

DO NOT SCALE DRAWING	NAME	DATE	BP BendPak 1645 LEMONWOOD DR. SANTA PAULA, CA 93065
	DRAWN TM	06/21/2017	
DIMENSIONS ARE IN MM	CHECKED CR	04/14/2020	TITLE: SP-7XE/F PARTS BAG
THIRD ANGLE PROJECTION			SIZE DWG. NO. A 5174030
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			SCALE: 1:2 SHEET 1 OF 1

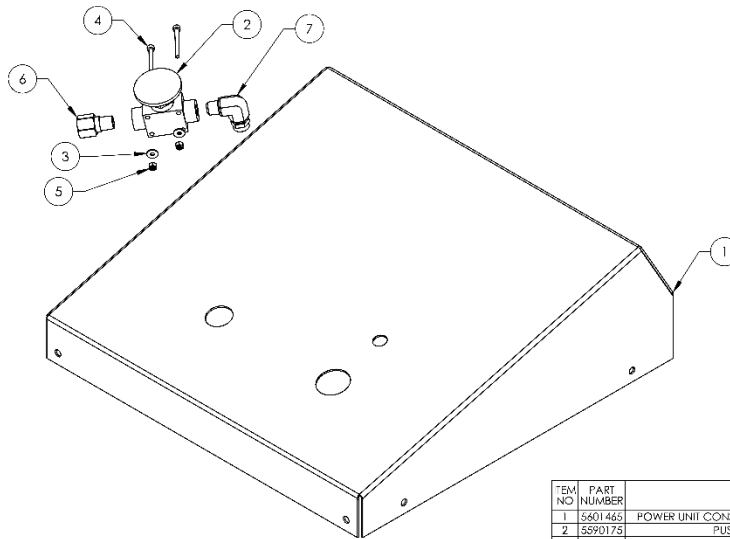


ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE

WHERE USED
SP-7XE SERIES

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601615	SP-7XE RAMP LONG EXTENSION	1	A
2	5601614	SP-7XE RAMP SHORT EXTENSION	1	A
3	5530303	HHB M8 x 1.25 x 16	4	--

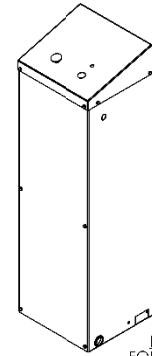
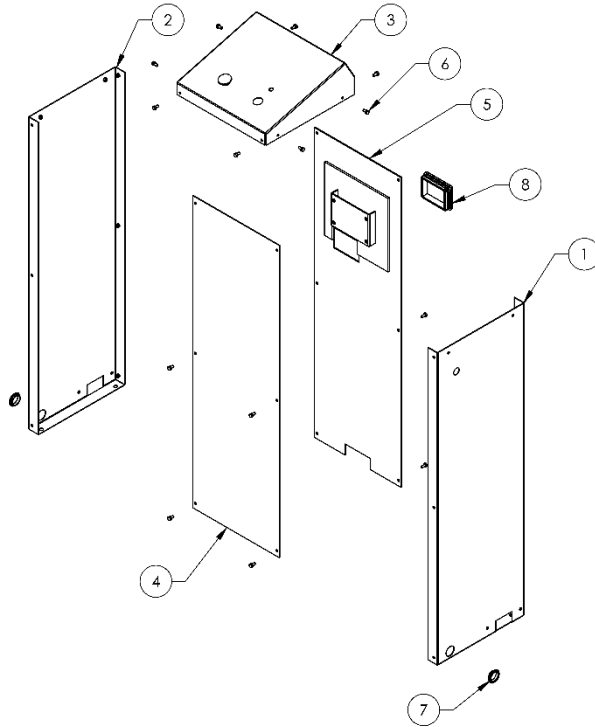
DO NOT SCALE DRAWING		NAME	DATE	BendPak 1645 LEMONWOOD DR. SANTA PABLA, CA 95026
DRAWN	TM	11/13/2020		
CHECKED	OR	07/15/2021		
TITLED			THIRD ANGLE PROJECTION	TITLE
SMILEY FACE				SP-7XE RAMP EXTENSION KIT
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				5210257
				REV
				A
SCALE: 1:5				SHEET 1 OF 1



WHERE USED
XR-12AE
SP-7XE SERIES
P900LT SERIES
MDS-6 SERIES

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601465	POWER UNIT CONSOLE COVER WELDMENT (3 BUTTON)	1	A
2	5590175	PUSH BUTTON AIR VALVE	1	--
3	5545024	WASHER, M3 x 5mm FLAT	2	--
4	5530243	SHCS M3 x 0.5 x 30	2	--
5	5535020	NUT M3 x D.S. NL CLR	2	--
6	5550486	FIG NPL-02 NPT x .04" NPT	1	--
7	5550087	FIG ELB-04 COMP X-02 NPT	1	--

DO NOT SCALE DRAWING		NAME	DATE	BendPak 1645 LEMONWOOD DR. SANTA PABLA, CA 95026
DRAWN	TM	06/24/2019		
CHECKED	OR	06/27/2019		
TITLED			THIRD ANGLE PROJECTION	TITLE
SMILEY FACE				3-BUTTON 110/220V CONSOLE TOP
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				5215857
				REV
				C
SCALE: 1:3				SHEET 1 OF 1



REVISION				
REV	DESCRIPTION	DATE	EDITED BY	E/C#
D	ADDED 5906015, 5905477 AND 5905478, REPLACED 5701259 WITH 5215857	03/26/2020	TM	01152
E	ADDED 5905138	12/30/2020	CA	01236
F	REPLACED 5905138, 5905477, 5905478, AND 5906015 WITH COLORS & GRAPHICS NOTE, UPDATED BOM REVISION	09/30/2021	CA	01350

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5601202	TALL POWER UNIT CONSOLE WELDMENT, R.H.	1	B
2	5601165	TALL POWER UNIT CONSOLE WELDMENT, L.H.	1	C
3	5215857	3-BUTTON 110/220V CONSOLE TOP	1	C
4	5737012	TALL POWER UNIT CONSOLE DOOR	1	C
5	5601166	TALL POWER UNIT CONSOLE DOOR WELDMENT, REAR	1	D
6	5530031	HHB M6 x 1.0 x 12mm	15	—
7	5520329	GROMMET GRO-1 25-UL CAPPLUGS	2	—
8	5715196	D2/XPR POLYETHYLENE COVER BLOCK 105 x 80	1	D

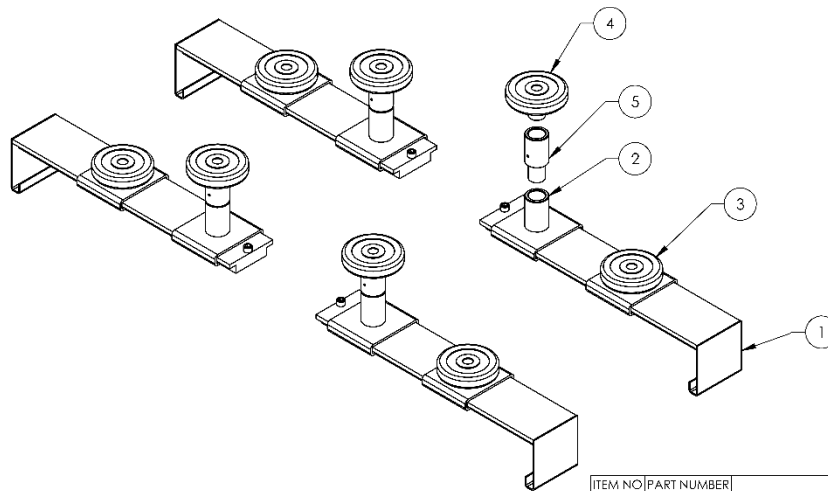
DO NOT SCALE DRAWING

PROPERTIES ARE IN INM

THIRD ANGLE PROJECTION

SCALE: 1:12

SHEET 1 OF 1



WHERE USED
SP-7XE SERIES

NEXT ASSEMBLY
ACCESSORY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5215837	SP-7XE EXTENSION ARM ASSEMBLY	4	A
2	5400257	TALL LIFT PAD WELDMENT	4	E
3	5215523	SLIDING SHORT ROUND LIFT PAD ASSEMBLY	4	G
4	5215507	ROUND LIFT PAD ADAPTER ASSEMBLY	4	G
5	5746390	MEDIUM LIFT PAD EXTENSION Ø35 x 113mm	4	E

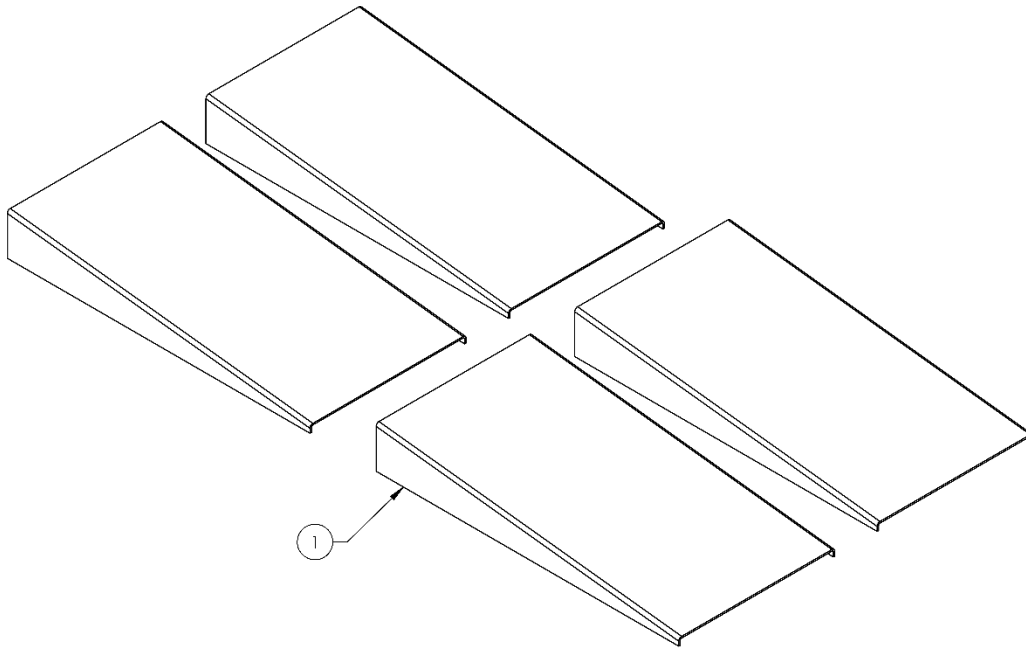
DO NOT SCALE DRAWING




PROPERTIES ARE IN INM

THIRD ANGLE PROJECTION

SCALE: 1:10

SHEET 1 OF 1



ITEM NO	PART NUMBER	DESCRIPTION		QTY	REV
1	5601766	SP-7XE EXTENDED DRIVE UP RAMP WELDMENT		4	A
DO NOT SCALE DRAWING		NAME	DATE	 1645 IRONWOOD DR. SAN ANTONIO, TX 78208	
DRAWN		CA	01/10/2022		
CHECKED					
DIMENSIONS ARE IN INCH		THIRD ANGLE PROJECTION		TITLE: SP-7XE EXTENDED DRIVE UP RAMP KIT, SET OF 4	
				SIZE	REV
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WHERE USED SP-7XE ACCESSORY		SCALE: 1:12		SHEET 1 OF	

Automotive Lift Institute (ALI) Store

You probably checked the [ALI's Directory of Certified Lifts](http://www.autolift.org/ali-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](http://www.autolift.org/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?

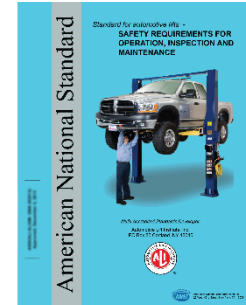
The ALI Store is your trusted source for workplace safety!



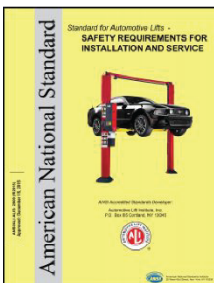
Lifting It Right Online Certificate Course. Make *sure* you and your people are lifting vehicles the right way.



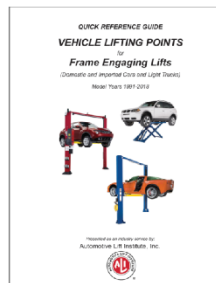
ALI Lift Inspector Certification Program Registration. Become a ALI Certified Lift Inspector.



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



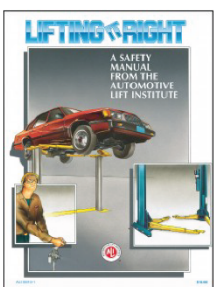
ANSI/ALI ALIS Standard. Safety Requirements for Installation and Service.



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