

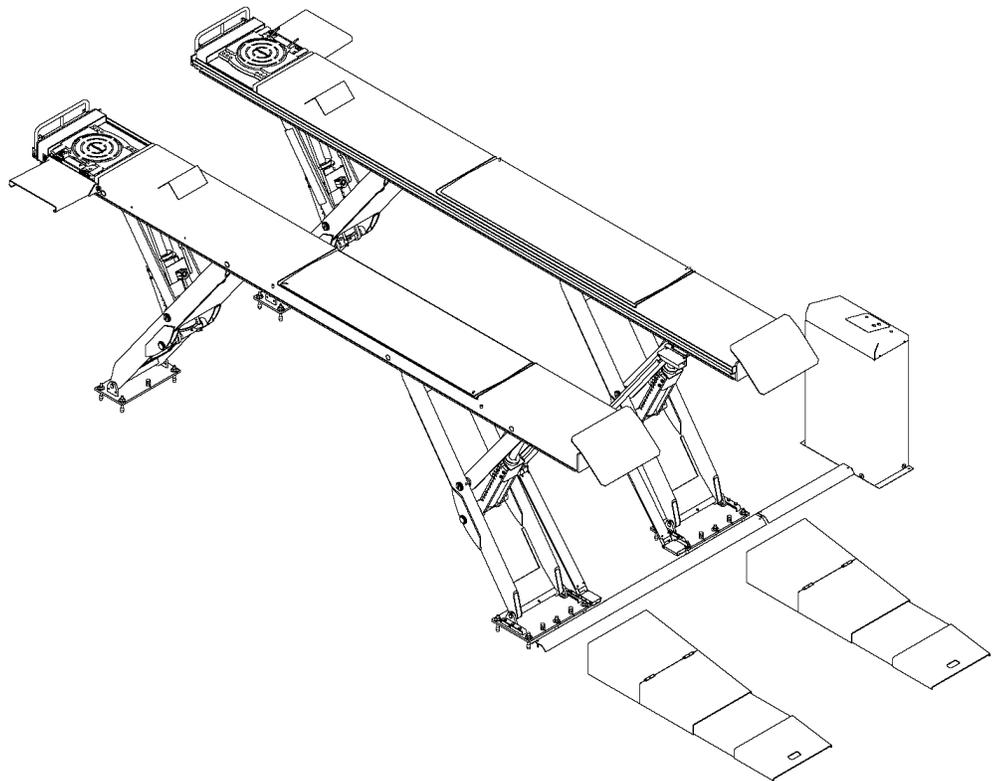
Quatra™ Full-Rise Scissor Lift

Installation and Operation Manual

Manual P/N 5900085 — Manual Revision A1 — October 2019

Models:

- XR-12000L
- XR-12000AL



XR-12000AL shown.

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

 **DANGER**

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 setup and operation, you agree that you fully understand the contents of this manual.

Manual. Quatra™ Full-Rise Scissor Lifts, *Installation and Operation Manual*, Manual Part Number 5900085
Manual Revision A1, Released October 2019.

Copyright. Copyright © 2020 by BendPak Inc. All rights reserved. You may make copies of this document if you agree that: you will give full attribution to BendPak Inc., you will not make changes to the content, you do not gain any rights to this content, and you will not use the copies for commercial purposes.

Trademarks. BendPak and the BendPak logo are registered trademarks of BendPak Inc. All other company, product, and service names are used for identification only. All trademarks and registered trademarks mentioned in this manual are the property of their respective owners.

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

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

Safety. Your new product was designed and manufactured with safety in mind. Your safety also depends on proper training and thoughtful operation. Do not set up, 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 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 that all parts are in place and operating correctly.
- Carefully inspect the product on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with approved replacement parts.
- Keep all instructions permanently with the product and make sure all labels are clean and visible.
- **Only use the Lift if it can be used safely!**

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

Model: _____

Serial: _____

Date of Manufacture: _____

BP BendPak Santa Paula, CA USA www.bendpak.com	
MODEL NUMBER	
DESCRIPTION	
LIFT CAPACITY	DATE OF MFG.
VOLTAGE	SERIAL NUMBER
<input type="checkbox"/> 110-240V, 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	
WARRANTY VOID IF DATA PLATE IS REMOVED PN 5905951	
EAC	

Table of Contents

Introduction	3	Operation	45
Shipping Information	4	Maintenance	49
Safety Considerations	4	Troubleshooting	50
Components	6	Wiring Diagrams	51
Specifications	8	Labels	53
FAQ's	10	Parts Drawings	55
Installation Checklist	11	Maintenance Log	70
Installation	12		

Introduction

This manual describes all models of the Quatra™ Full-Rise Scissor Lift:

- **XR-12000L:** Full Rise Scissor Lift, offering easy access to Vehicles from the front, back, and underneath. Raises Vehicles up to 12,000 lbs (5,443 kg). ALI certified.
- **XR-12000AL:** The Alignment version of the XR-12000L, with extended Platforms. ALI certified.

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

This manual is mandatory reading for ***all Quatra™ Lift installers and users.***

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

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

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

Technical support and service is available from your dealer, on the Web at bendpak.com/support, by email at techsupport@bendpak.com, or by phone at **(800) 253-2363**, extension 196.

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

Shipping Information

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

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

If you discover missing or damaged goods **after** you receive the shipment and have signed the bill of lading, notify the carrier at once and request the carrier to make an inspection. If the carrier will not make an inspection, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

It is difficult to collect for loss or damage after you have given the carrier a signed bill of lading. If this happens to you, file a claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs. Our willingness to assist in helping you process your claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

Safety Considerations

Read this manual carefully before using your new product. Do not set up or operate the product until all installers/operators are familiar with all operating instructions and warnings.

General Safety Information

- The Quatra™ Lift series are Full-Rise Scissor Lifts. Use them only for their intended purpose.
- The product should only be operated by authorized, trained personnel.
- You **must** wear OSHA-approved (publication 3151) personal protective equipment at all times when installing, using, maintaining, or repairing the Lift: leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection **are mandatory**.
- When the product is in use, keep people and body parts well away from it.
- **Never** exceed the rated capacity of the Lift.
- Make sure all operators read and understand this *Installation and Operation Manual*. Keep the manual near the device at all times.
- Do not make any modifications to the product; this voids the warranty and increases the chances of injury and property damage.
- Make a visual inspection of the product **before** using it. Check for damage or missing parts. Do not use the product if you find any issues. Instead, take it out of service, then contact your dealer, email techsupport@bendpak.com, visit bendpak.com/support, or call **(800) 253-2363**.
- BendPak recommends making a **thorough** inspection of the product at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.

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

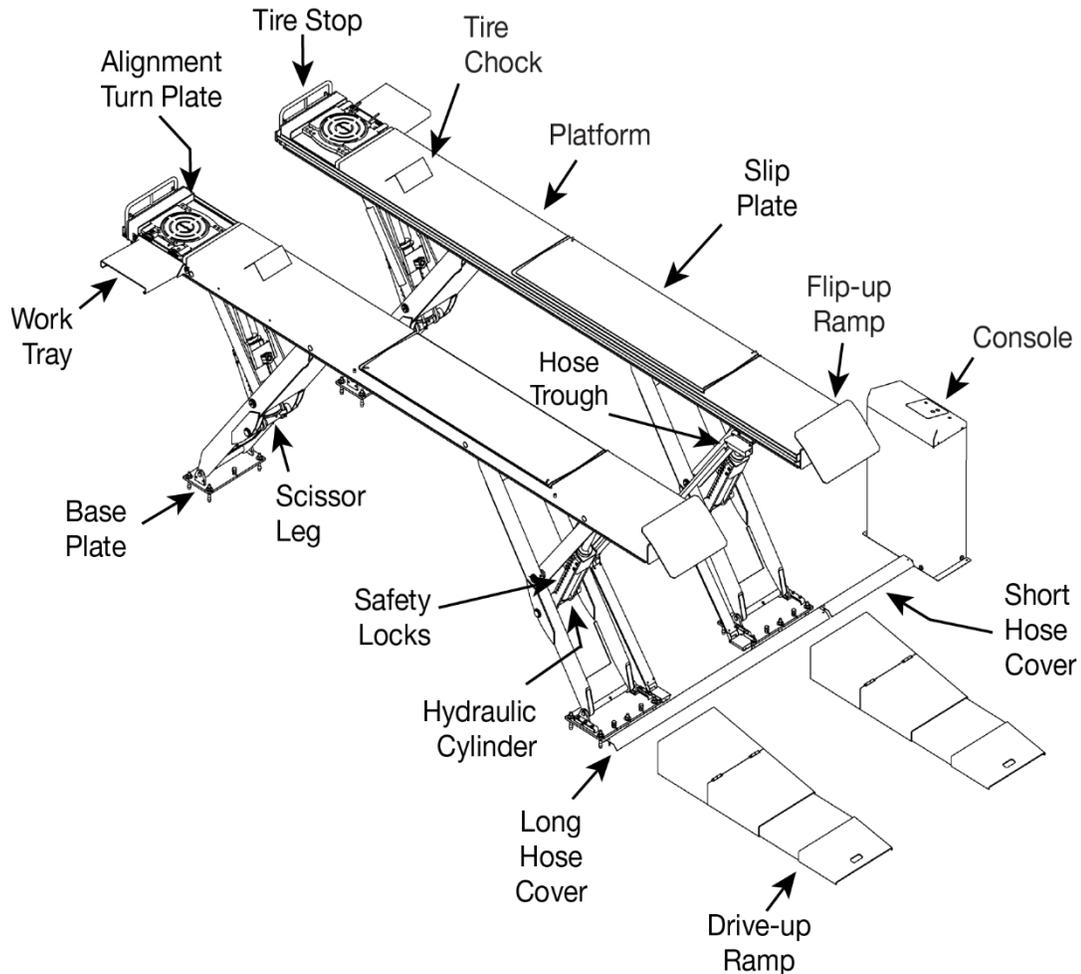
BendPak Inc. assumes **no** liability for damages resulting from:

- Use of the product for purposes other than those described in this manual.
- Modifications to the equipment without prior, written permission from BendPak Inc.
- Damage to the equipment from external influences.
- Incorrect operation of the equipment.

Components

Lift components include:

- **Console.** Hosts the Lift Controls and the Power Unit. The Hydraulic Hoses and Air Line connect to the Power Unit inside the Console.
- **Power Unit.** Provides Hydraulic Fluid to the Hydraulic Cylinders, goes inside the Console; connects to an external power source and to the Lift Controls.
- **Drive-up Ramps.** Used for driving a Vehicle onto the Platforms.
- **Flip-up Ramps.** Attach to the Rear of the Lift, used for driving a Vehicle over the Drive-up Ramps and onto the Platforms; also works as a Tire Chock for your Rear Tires.
- **Platforms.** The tops of the Runways. Flat steel plates that raise and lower off the ground.
- **Base Plates.** The bottoms of the Lift. They hold the Hydraulic Cylinders, the Scissor Legs, the Safety Locks, and the Air Release. You anchor the Frames in place using the Anchor Bolt holes in each Base.
- **Frames.** A Platform, Base, and Scissor Legs taken together are called a Frame.
- **Hydraulic Cylinders.** Push the Platforms up to raise a Vehicle, move them down to lower it.
- **Safety Locks.** Hold the Platforms in place. Each Frame has multiple Safety Lock positions, which let you select the best height for your needs.
- **Air Cylinders.** Push the Platforms off their Safety Locks so you can lower the Lift. You must provide an air pressure supply (minimum 50 psi / 10 CFM, regulated to a maximum of 125 psi).
- **Hose Troughs.** Cover the Air and Hydraulic Hoses from the underside of the Frames to where they reach the Hose Covers on the ground. Installed at the Rear of the Lift, in between the Runways.
- **Hose Covers.** Protect the Hydraulic Hoses and the Air Line as they are routed to the Console. Installed at the Rear of the Lift.
- **Work Trays.** Hold tools when you are working on your Vehicle. Installed near the Front of the Lift.
- **Tire Stops.** Hold the Front Tires of the Vehicle in position. Installed at the Front of the Lift.
- **Tire Chocks.** Prevents against accidental movement of the Tires. Goes behind the Rear Tires.
- **Slip Plates.** A large movable plate on both Runways towards the Rear of the Lift; used for Vehicle alignments (XR-12000AL only).
- **Turn Plates.** Goes at the Front of the Lift. Movable plates that lets you perform Vehicle alignments (XR-12000AL only).



Power Unit found inside the Console. Hydraulic Hoses and Air Line are routed under the two Hose Covers to the Console. Alignment Turn Plates and Slip Plate available for XR-12000AL only.

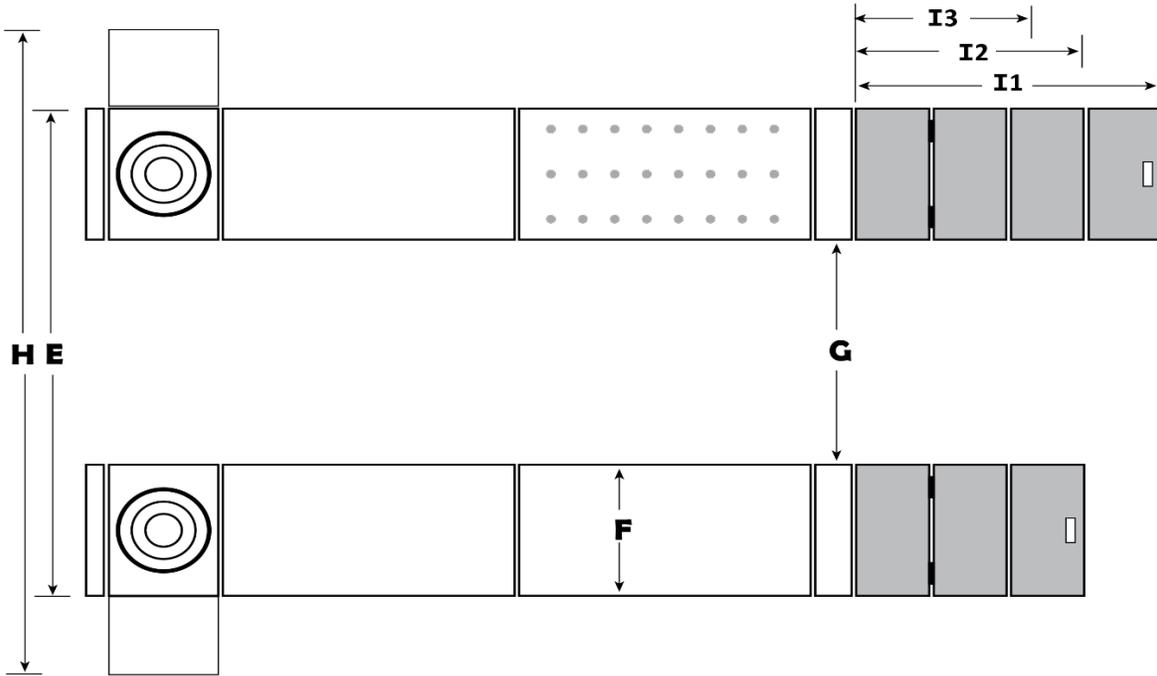
Additional Products

There are additional products you can purchase separately to use with your Lift:

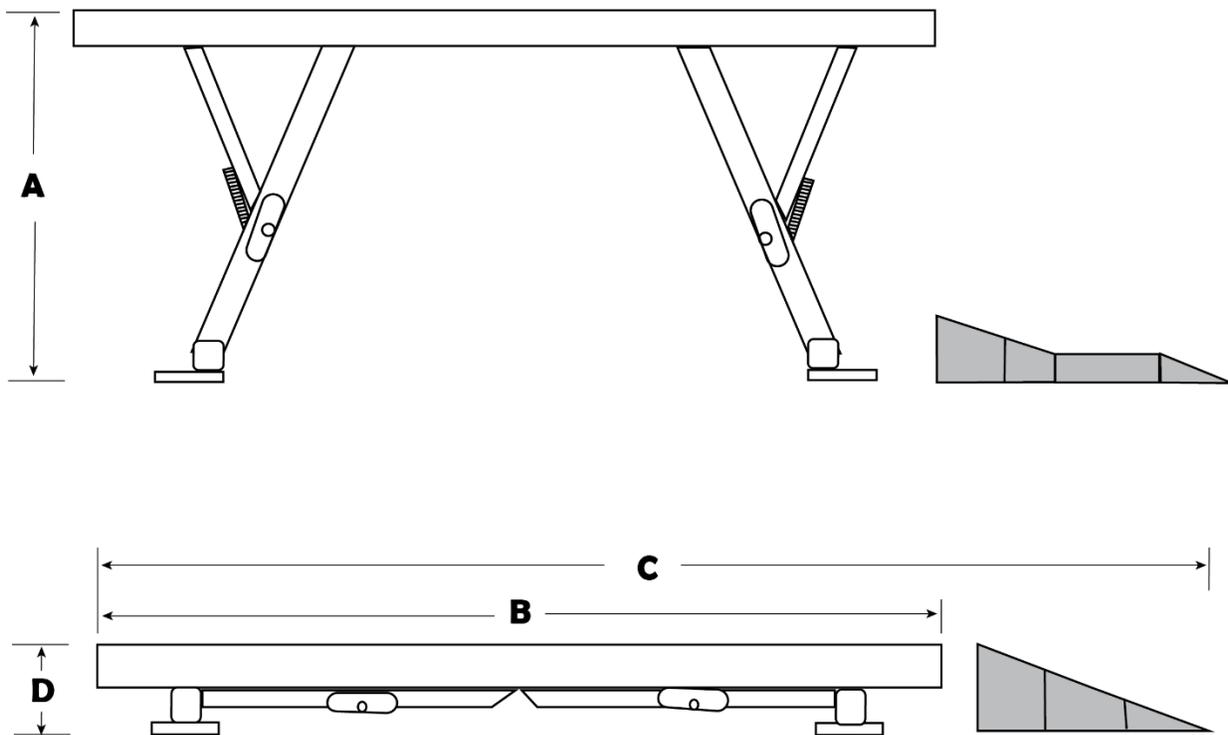
- **Aligner.** An Aligner is a hardware/software product that lets you perform wheel alignments using advanced imaging technology. See the [Aligner Page on the BendPak website](#) for more information.
- **Rolling Bridge Jack.** A Rolling Bridge Jack raises the wheels of a Vehicle off the Frames off the Lift, making it easier to perform services such as brake jobs and suspension work while the Vehicle is still on the Lift.
You can raise two wheels off the Runways if you have one Rolling Bridge Jack. It takes two Rolling Bridge Jacks to raise all four wheels off the Runways. See the [Rolling Bridge Jack page on the BendPak website](#) for more information.
- **Rolling Oil Drain Pan.** Holds automotive fluid when you are performing oil changes on your Vehicle. See the [Rolling Oil Drain Pan page on the BendPak website](#) for more information.

Specifications

Top View



Side View



Model	XR-12000L	XR-12000AL
Lifting Capacity	12,000 lbs. (5,443 kg)	
A Lifting height	75" (6.3 feet) / 1,912 mm	
B Length of Platforms	193" (16.1 feet) / 4,904 mm	218.5" (18.3 feet) / 5,550 mm
C Total length with Ramps	276.75" (24 feet) / 7,029 mm	300.25" (25 feet) / 7,627 mm
D Lowered height	11.75" / 298 mm	
E Overall width	89.5" (7.6 feet) / 2,274 mm	
F Platform width	23.75" (2 feet) / 604 mm	
G Width between Ramps	40.5" (3.5 feet) / 1,028 mm	
H Width with trays	120.25" (10 feet) / 3,057 mm	
I1 Ramp Length (Extended)	79" (6.7 feet) / 2,007 mm	
I2 Ramp Length (Collapsed)	56" (4.8 feet) / 1,422 mm	
I3 Ramp Length (Stowed)	22" (1.10 feet) / 559 mm	
Min. 4-Wheel Alignment	N/A	87" (7.3 feet) / 2,210 mm
Max. 4-Wheel Alignment	N/A	160" (13.4 feet) / 4,064 mm
Min. 2-Wheel Alignment	N/A	194" (16.2 feet) / 4,928 mm
General Service Wheelbase	175.5" (14.8 feet) / 4,458 mm	199" (16.7 feet) / 5,055 mm
Min. Wheelbase @ Capacity ¹	135" (11.3 feet) / 3,429 mm	155" (13 feet) / 3,937 mm
Min. Wheelbase @ 75% Capacity ¹	120" (10 feet) / 3,048 mm	135" (11.3 feet) / 3,429 mm
Min. Wheelbase @ 50% Capacity ¹	120" (10 feet) / 3,048 mm	110" (9.2 feet) / 2,794 mm
Min. Wheelbase @ 25% Capacity ¹	80" (6.8 feet) / 2,032 mm	90" (7.6 feet) / 2,286 mm
Max. Operating Pressure	2800 PSI	
Motor	220 VAC, 60 Hz, 1 Ph (<i>special voltages available upon request</i>)	

¹ The Lift supports less weight than its rated capacity if the Vehicle's wheelbase is shorter; this is because the wheels are closer to the middle of the Runways, where there is less strength.

Specifications subject to change without notice.

Frequently Asked Questions

Question: How much weight can the Quatra™ Lifts raise?

Answer: They can raise Vehicles up to 12,000 pounds (5,443 kg).

Q: What is the difference between the XR-12000L and XR-12000AL models?

A: The “A” in the XR-12000AL means you can perform Vehicle alignments. Additionally, the XR-12000AL has longer Platforms.

Q: How high does a “Full-Rise” Scissor Lift raise a Vehicle?

A: The Quatra™ Lifts can raise 75 inches (6.3 feet) off the ground.

Q: Does the Lift have to be anchored in place?

A: Yes, you **must** anchor the Lift. The Lift may be less stable if you do not anchor the Bases, and you could void the ALI certification.

Q: Can I install my Lift outdoors?

A: No. Your Lifts are approved for indoor installation and use only. Outdoor installation is **prohibited**.

Q: Are the Left and Right Frames interchangeable?

A: No; the Utility Rails that are on the inside of the Frames must face each other.

Q: Can I put the Console on either side of the Lift?

A: The short answer is, yes. The longer answer is that the Hydraulic Hoses and Air Lines on each Frame come pre-attached (the Right Frame has shorter Hydraulic Hoses than the Left Frame) so the Console goes on the same side as the shorter set of Hydraulic Hoses to properly reach. If you want the Console to be on the Left side of the Lift after the Frames are already positioned in place, you will need to undo the two Hydraulic Hoses sticking out from the Rear of each Frame and swap them.

Q: Which end of the Lift is the “Front”?

A: The location of the Tire Stops mark the Front of the Lift.

Q: Do I need an air supply?

A: Yes. An Air Supply **not exceeding 125 psi** is required to disengage the Safety Locks when you want to lower the Lift.

Q: Does it matter if I drive my Vehicles in front first or back them in?

A: BendPak strongly recommends driving your Vehicle in front first, because that makes it easier to center the Vehicle’s wheels on the Runways. Also, don’t forget to put the Front Tires up against the Tire Stops and chock the Rear Wheels.

Q: What does a Safety Lock do?

A: Safety Locks hold the Platforms up, **once they are engaged**. Even if the Lift loses power, the Platforms stay where they are if they were left engaged on a Safety Lock. **Only leave your Lift either fully lowered or engaged on a Safety Lock.**

Installation Checklist

Following are the steps needed to install the Lift. Perform them in the order shown.

- 1. Review the installation Safety Rules.
- 2. Make sure you have the necessary Tools.
- 3. Plan for Electrical Work.
- 4. Select the Installation Site.
- 5. Choose the Console Location.
- 6. Check Clearances around the Lift.
- 7. Unload and Unpack.
- 8. Create Chalk Line Guides.
- 9. Position the Lift Components.
- 10. Lift the Platforms off the Bases.
- 11. Anchor the Console.
- 12. Install the Hose Troughs.
- 13. Connect the Hydraulic Hoses.
- 14. Understand Compression Fittings and Tubing.
- 15. Connect the Air Lines.
- 16. Install the Hose Covers.
- 17. Contact the Electrician.
- 18. Connect the Power Unit (***Electrician required***).
- 19. Install a Power Disconnect Switch (***Electrician required***).
- 20. Install a Thermal Disconnect Switch (***Electrician required***).
- 21. Anchor the Bases.
- 22. Anchor the Console (if it is not already anchored).
- 23. Level the Lift.
- 24. Install the Accessories.
- 25. Lubricate the Lift.
- 26. Review the Final Checklist.
- 27. Leave the Manual for the Owner/Operator.

Installation

This section describes how to install your Lift. Perform the steps in the order listed.

Correct operation of the Lift requires correct installation. **Take your time, read the instructions, do it right.**

 **WARNING** *Only use the factory-supplied parts that came with your Lift.* If you use parts from a different source, you void your warranty and compromise the safety of everyone who installs or uses the Lift. If you are missing parts, visit bendpak.com/support or call **(800) 253-2363**, extension 191.

Being Safe

When installing your 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 lifting tools, such as a Forklift or Shop Crane, to raise heavy components. Do not install this equipment without reading and understanding this manual and the safety labels on the unit.

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

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

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

Tools

You may need some or all of the following tools:

- Rotary hammer drill or similar
- 3/4", 3/8", 1 1/4" masonry bits
- Hammer, crow bar, and two sawhorses
- Industrial Slings
- Open-end wrench set
- Socket and ratchet set
- Medium/Large crescent wrench, torque wrench, pipe wrench
- Four-foot level and 12-foot ladder
- Chalk line
- Medium flat screwdriver
- Tape measure (25-foot recommended)
- Forklift, Shop Crane, or heavy-duty rolling dolly

Planning for Electrical Work

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

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

Notify your Electrician in advance so that they come prepared with appropriate components for connecting to the power source, a Power Disconnect Switch, and a Thermal Disconnect Switch. Refer to **Contact your Electrician** for more information.

Your Electrician needs to:

- **Connect the Power Unit to an electric power source.** An electric power source is required. The Power Unit comes with a Pigtail for wiring to a power source. Have your Electrician connect a power cord with appropriate plug to the electrical box or have them wire it directly into the electrical system at the Lift location.
- **Install a Power Disconnect Switch.** A Power Disconnect Switch ensures you can quickly and completely interrupt electrical power on the Lift in the event of an electrical circuit fault, emergency situation, or when equipment is undergoing maintenance. Refer to **Install a Power Disconnect Switch** for more information.
- **Install a Thermal Disconnect Switch.** A Thermal Disconnect Switch ensures that the equipment shuts down in the event of an overload or overheated motor. Refer to **Install a Thermal Disconnect Switch** for more information.

Note: These components are *not* included with the Lift.

Select a Site

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

- **Architectural plans.** Consult the architectural plans for your desired installation location. Make sure there are no issues between what you want to do and what the plans show.
- **Enough space.** Make sure there is adequate space on all sides, plus enough room above for the Vehicles you will be raising. Refer to **Checking Clearances** for more information.
- **No overhead obstructions.** Make sure the site is free of low-hanging overhead obstructions.
- **Floor.** Only install the Lift on a flat, Concrete floor; do not install on asphalt or any other surface. The surface must be level; do not install if the surface has more than three degrees of slope.

 **WARNING** Installing your Lift on a surface with more than three degrees of slope could lead to injury or even death. Only install the Lift on a level floor. If your floor is not level, considering making the floor level or using a different location.

- **Shimming.** If your Concrete floor is not completely level, you can use Shims under the Base Plates, as needed, to level the Lift. To estimate your Shim requirements, use a transit level and targets to check for flatness. Use the provided Shims as necessary.

NOTICE Do not shim a Base Plate more than half an inch using the provided Shims and Anchor Bolts. A maximum shim of 2 inches is possible by ordering Shim Plates. Contact BendPak at **(800) 253-2363**, extension 191 to order.

- **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. Only install the Lift on concrete.

 **CAUTION** BendPak Lifts are supplied with installation instructions and Concrete anchors that meet the criteria set by the current version of the American National Standard “Automotive Lifts — Safety Requirements for Construction, Testing, and Validation”, ANSI/ALI/ALCTV. You are responsible for any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).

Be sure to check your Concrete floor for the possibility of it being a **post-tension slab**. In this case, you must contact the building architect before drilling. Using ground penetrating radar may help you find the tensioned steel.

- **Power.** You need an appropriate power source near the Console. If you are using the Lift at 220 VAC at 60 Hz, 1 Ph, use a 25 amp or greater fuse. For a 380 VAC, use a 15 amp or greater fuse.
- **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 approved for indoor installation and use only. Outdoor installation is prohibited.
- **Second floor installs.** Do not install your Lift on a second floor or elevated floor without first consulting the building architect and getting their permission.
- **Dress properly.** Wear protective gear (safety goggles, helmet, heavy gloves, suitable working clothes, safety boots, ear protection, and so on) at all times when installing the Lift. Do not wear loose clothing or jewelry; contain long hair; keep hair, clothing, and gloves away from moving parts.

 **WARNING** Always wear appropriate protective gear when working on the Lift.

Choose the Console Location

Before going any further, decide how you want to orient the Console, as it impacts other aspects of the installation.

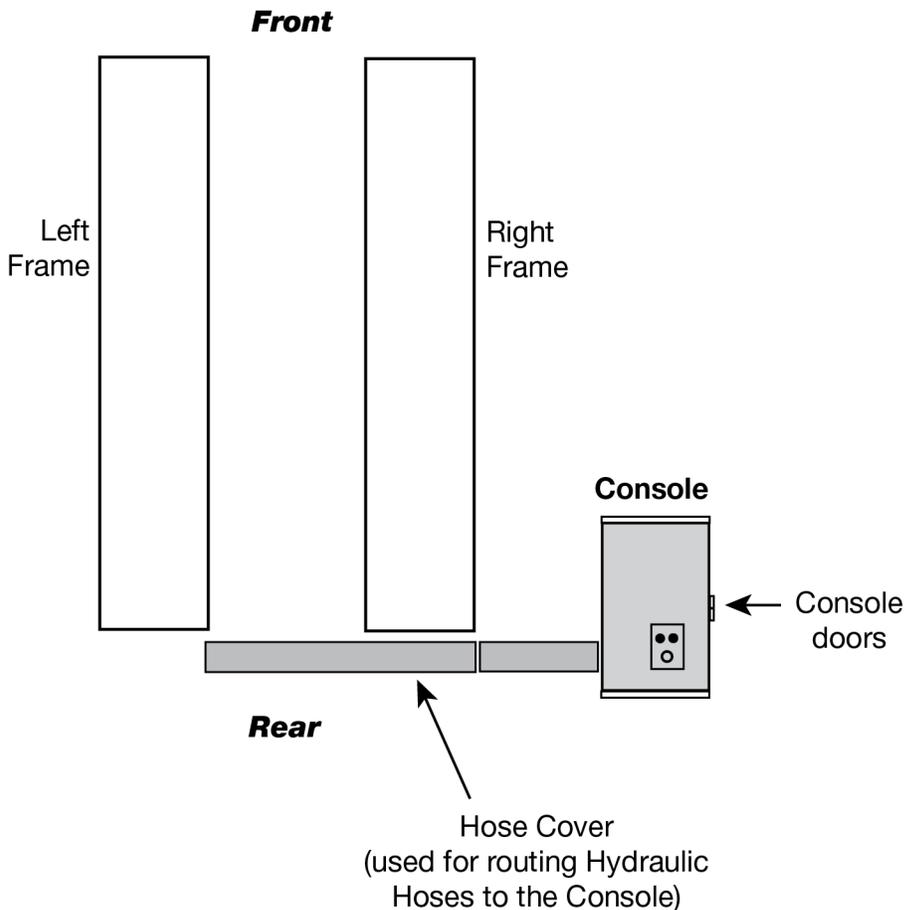
Each Frame has two Hydraulic Hoses (of different lengths) already pre-attached; the Right Frame comes with shorter Hydraulic Hoses, so the Console must go on the right side of the Lift in order for those Hydraulic Hoses to reach the Console where they attach. If this configuration works for you, then continue to the next procedure.

If you prefer to position the Console on the **Left** side of the Lift, you will need to undo the two Hydraulic Hoses from each Frame and swap them; this needs to be done before you route the Hydraulic Hoses to the Console.

In most cases, the Console location is determined based on the access to the power source. If access to the power source is not an issue for you, choose the option that best fits your setup.

See [Connect the Hydraulic Hoses](#) for a list of the Hose lengths and connector locations.

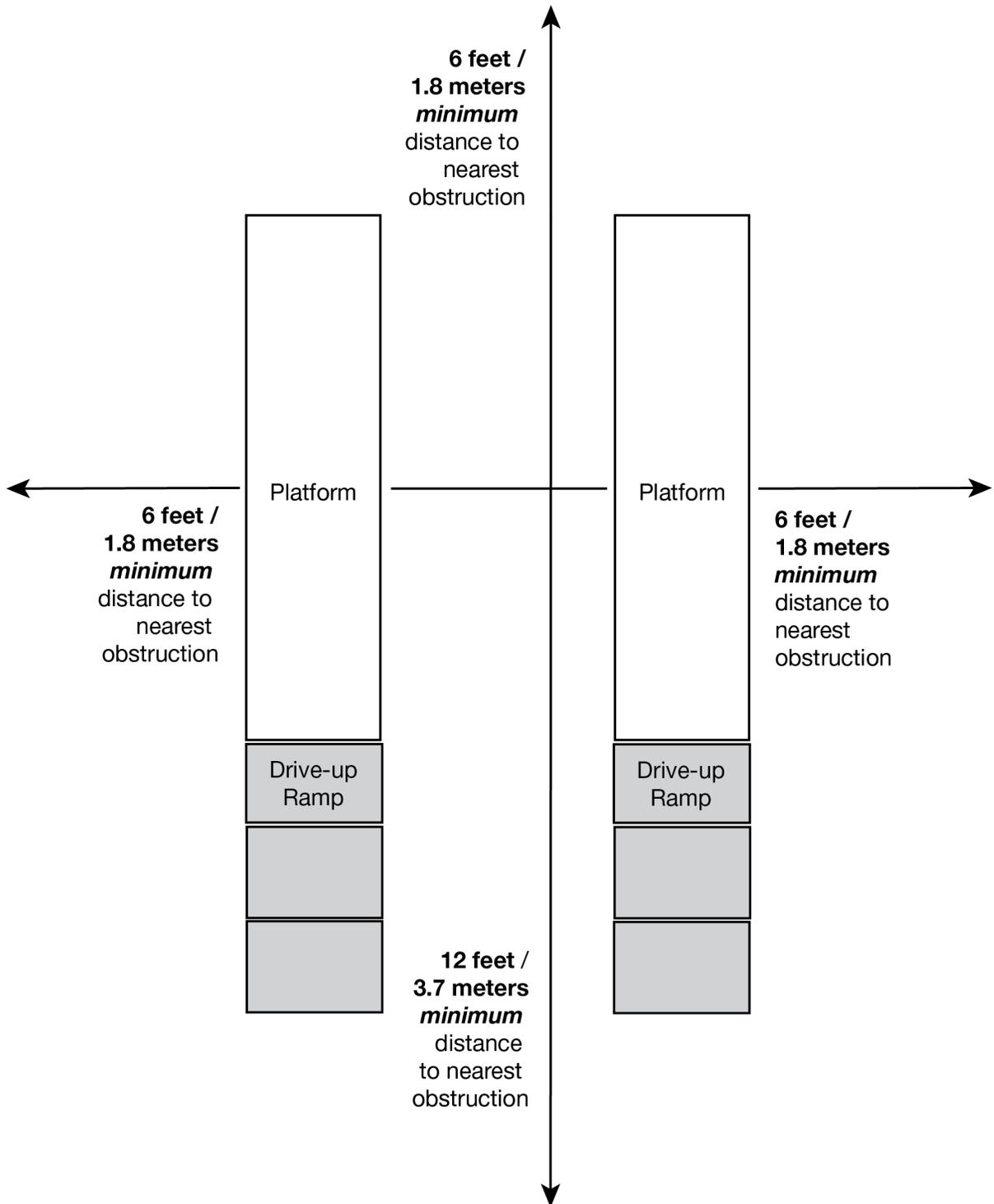
The following drawing positions the Console on the right side of the Lift.



Top View. The Rear of the Console must face the Lift in order to route the Hydraulic Hoses through the back opening. Drawing not to scale. Not all components are shown.

Checking Clearances

For safety purposes, a certain amount of clear space around the Lift is **required**. More space is needed at the Rear of the Lift for Vehicles to drive on and off the Platforms.



Unloading and Unpacking

When the components of your Lift are delivered to the site, have them dropped off as close as possible to the area where you will be installing the Lift.

Once the components are unloaded, they are your responsibility to move around. The Frames are very heavy, so the closer you unload them to the installation location, the better off you will be.

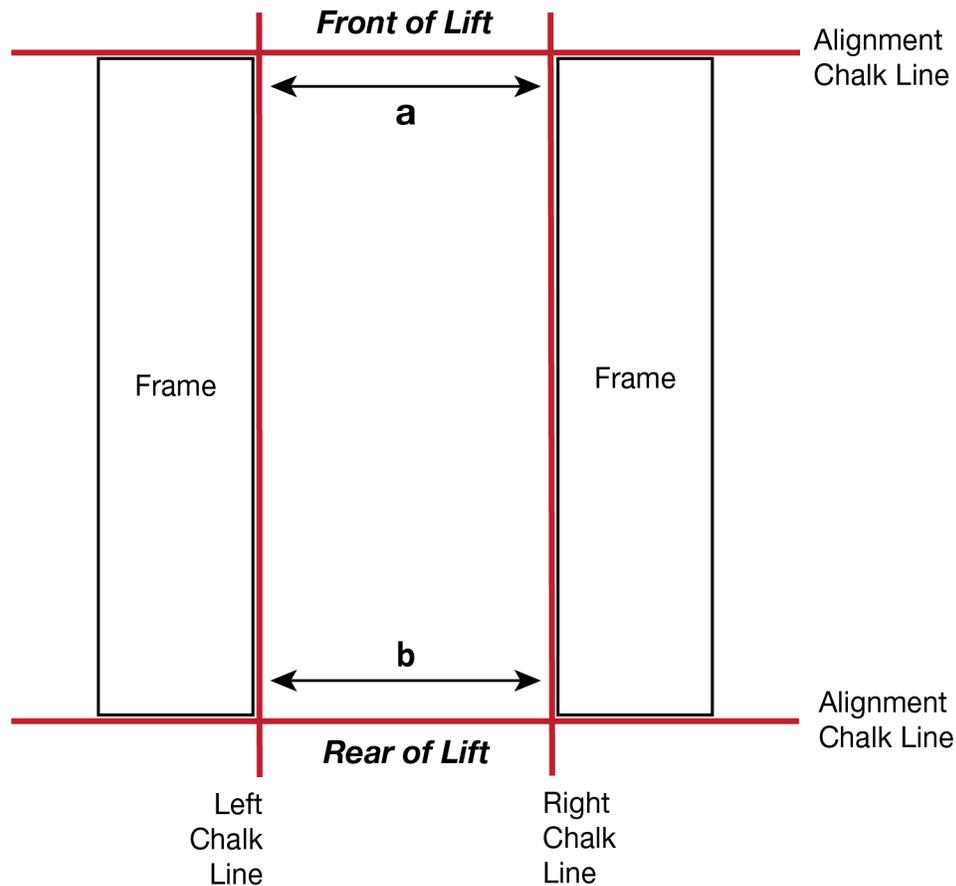
 **CAUTION** Some Lift components are extremely heavy. If handled incorrectly, they can damage materials like tile, sandstone, and brick. Try to handle the Lift components twice: once when delivered and once when moved into position. You **must** have a Forklift or Shop Crane to move them into position. Use care when moving them.

Creating Chalk Line Guides

Create Chalk Line Guides so that the edges of the Frames fit into the four corners created by the Chalk Line Guides.

Refer to **Specifications** to determine the **Overall Width** and **Outside Length** values for your Lift.

Note: Do not use the **Overall Length** value; this includes the Ramps, which are not taken into consideration for creating Chalk Line Guides.



To create Chalk Line Guides:

1. Decide where you want to locate the Lift.
Keep in mind that the Console must be within 35 inches from the Lift.
2. Create an Alignment Chalk Line where you want the Front of the Lift.
Make the Alignment Chalk Line longer than the overall width of the Platforms.
3. Add two more Chalk Lines perpendicular to the Alignment Chalk Line and 40.5 inches (1,029 mm) apart. *Remember, this is a Lift that can be used for alignment services, so you want your measurements to be correct.*
Make the Chalk Line long enough for the entire length of the Ramp. This line will be your reference when laying down the Base Plates.
4. Create the Rear Chalk Line parallel to the Front Chalk Line.
Make the Alignment Chalk Line longer than the overall width of the Platforms
5. Double check all dimensions and make sure that the layout is perfectly aligned.

Align the Frames into Position

Once you have created the Chalk Line Guides, move the Frames into position.

To align the Frames into position:

1. Use a Forklift or Shop Crane to lower the Frames into the layout you created.
The Frames go on the *inside* of the Chalk Lines.
2. Align the Base Plates with the Chalk Lines.
3. Move the two Frames into position where the Left and Right Chalk Lines intersect the alignment Chalk Line.
4. Measure the distance between the two Platforms at point **a** and **b**.

The Frames need to be same distance apart at both points. If **a** and **b** are not the same, adjust the Platform locations; make sure they are the same distance apart and parallel to each other.

5. Double check that the Frames are correctly positioned and the Utility Rails are facing the inside of the Lift.

Lift the Platforms off the Bases

You must raise the Platforms off their Bases in order to complete other aspects of the installation. **Be sure to leave the Lift on a Safety Lock when you raise it.**

 **WARNING** The Frames are extremely large and heavy. You must use a Forklift or Shop Crane to move the Platform off the Bases; make sure the Safety Locks are engaged when you reach the desired height.

To lift the Platforms off the Bases:

1. Use a Forklift or Shop Crane to raise the Platform off of its Base Plate, using care so that the Base Plates do not move.

Make sure to hold down the Base while you raise the Platform.



Tip

Once the Platform and Base are separated by more than half an inch (~13 mm), you can put Industrial Slings (straps) around each end to continue raising the Platform off the Base.

2. Raise the Platform to the first Safety Lock, then make sure the Frames are secure on a Locking position.

 **WARNING** Do not leave or work on the Lift without first confirming that the Platforms are secure on a locking position; if not, you or anyone else working on the Lift could be seriously injured.

3. Repeat the same procedure for the other Frame.

Important: **Do not bolt down the Bases at this point.** This will be done later in the installation process.

Anchor the Console

The Console comes assembled from the factory; there are still connections to make to the Power Unit. That will be covered later in the installation.

The Rear of the Console must face the Lift to route the Hydraulic Hoses and Air Line through the back opening. The Console can be up to 35 inches away from the Rear of the Lift.



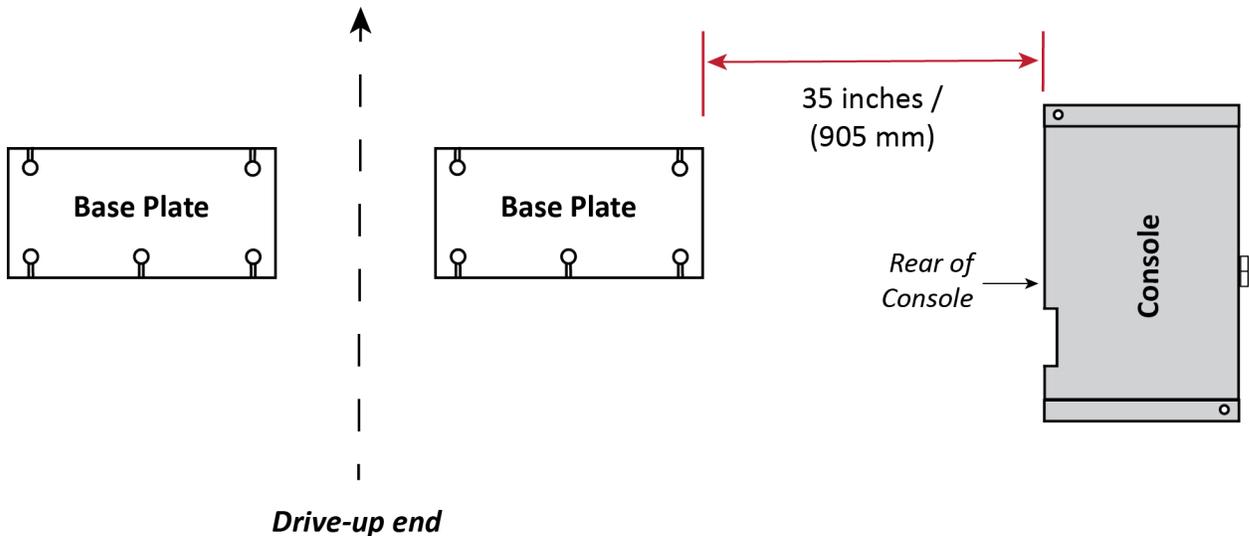
Tip

If you want to place the Console further than 35 inches from the Lift, you will need to purchase Hydraulic Hoses that are long enough to reach the Lift from the desired location. You may be able to obtain these Hoses from the local hydraulics shop, once you know how long you need them; you will also need longer Air Lines. For safety purposes, **the Console operator must always have a clear, unobstructed view of the Lift.**

The following procedure describes anchoring the Console into place. If you prefer, you can defer anchoring the Console. Anchoring the Console is a relatively permanent decision, so delaying the procedure gives you more time to decide where you would like to position the Console. It is easier to change the Console location later if it is not already anchored.

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

The following drawing shows how to arrange the Console next to the Lift.



Top View. Not to scale. Not all components are shown.

To anchor the Console:

1. Select a site for the Console that permits operators to have a clear, unobstructed view of the Lift.
Make sure the Rear of the Console is facing the Lift.
2. Remove the Console from its packaging and move it to the selected location.
3. If you are ready to anchor the Console in place, locate two 3/8" by 2 1/4" Anchor Bolts from the Parts Box.
4. Using the holes in the Console Base as a guide, drill two 3/8" wide by 3" deep into the Concrete.
Go in straight; do not let the drill wobble. Use a carbide bit (conforming to ANSI B212.15)
5. Remove all dust from the holes; use a wire brush, vacuum, hand pump, or compressed air.
Do not ream the hole. Do not make the hole any wider than the drill made it.
6. Insert an Anchor Bolt with Washer into each hole, then tap it down into the hole.
7. Turn the Anchor Bolt **clockwise** to the recommended installation torque, 25-30 pound feet, using a Torque Wrench.

Important: Do **not** use an Impact Wrench to torque the Anchor Bolts.

Install the Hose Troughs

Before you make connections to the Console, attach the Hose Troughs to the Frames; they connect near the Rear of the Frames. The Hose Troughs protect the Hydraulic Hoses and the Air Line as they are routed to the Console.

The Hose Troughs are **not** interchangeable; the Window near the top of the Trough must face the inside of the Frame.

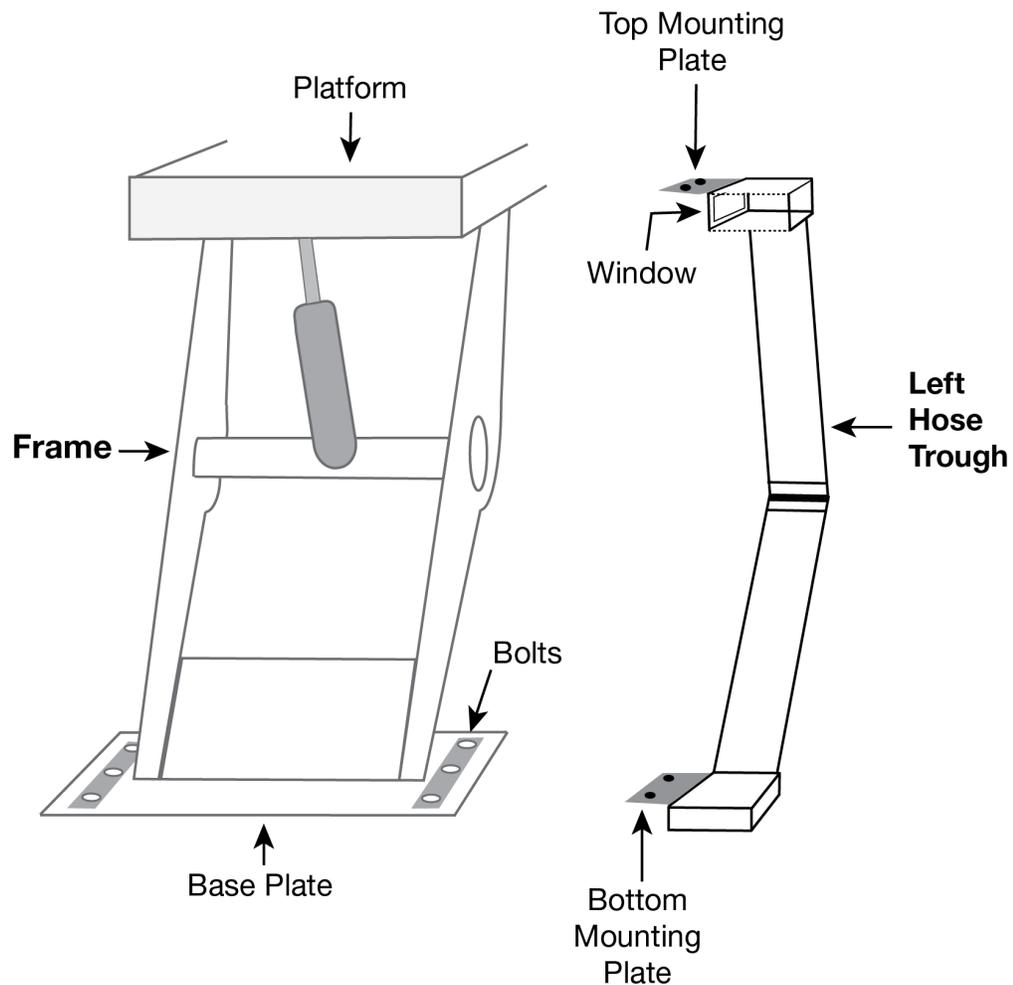


Tip

It is easier to route the Hydraulic Hoses and Air Line through the Hose Trough **before** attaching the Trough to the Frame.

When you are ready to attach the Hose Troughs to the Frames, return to this section.

The following drawing shows how to orient the Hose Trough next to the Frame.



Not necessarily to scale. Not all components shown. Drawing shows the Hose Trough at the Rear of the Left Frame.

To install the Hose Troughs:

1. Raise the Platforms to a height that works for you, then make sure they are engaged on a Safety Lock.

You want enough height to attach the Hose Trough near the top of the Platform and by the Base Plate without issue.

See [Lift the Platforms off the Bases](#) for more information.

 **WARNING** Do not allow anyone to go under or near the Frames without first confirming that the Lift is engaged on a Safety Lock position.

2. Find the supplied Bolts (2), Washers (2), and Nuts (2) from the Parts Bag for each Hose Trough.
3. Place the Left Hose Trough into position at the Rear of the Left Frame.
4. Raise the Hose Trough into a standing position and align the two holes on the Mounting Plate to the marked holes on the underside of the Platform, at the Rear of the Frame.
5. Attach the Trough to the Frame using a Bolt, Washer, and Nut per each hole.
Finger tighten the Nuts into place for now. You will securely tighten the Nuts later.
6. Remove two Bolts from the Base Plate, then attach the Bottom Mounting Plate to the Frame Base Plate using the same Bolts you just removed.
7. Repeat steps 2 through 6 for the other Hose Trough.

Connect the Hydraulic Hoses

Hydraulic Hoses provide Hydraulic Fluid to the Hydraulic Cylinders, which are used to raise and lower the Frames. The Hydraulic Hoses on the Lift connect to the Valve Block inside the Console; the Valve Block controls the flow of Hydraulic Fluid to each Hydraulic Cylinder on the Lift.

Your Lift comes with the Hydraulic Hoses already pre-attached to the Frames, so you need to connect the Hydraulic Hoses labeled S1 through S4 to the matching Valve on the Valve Block.

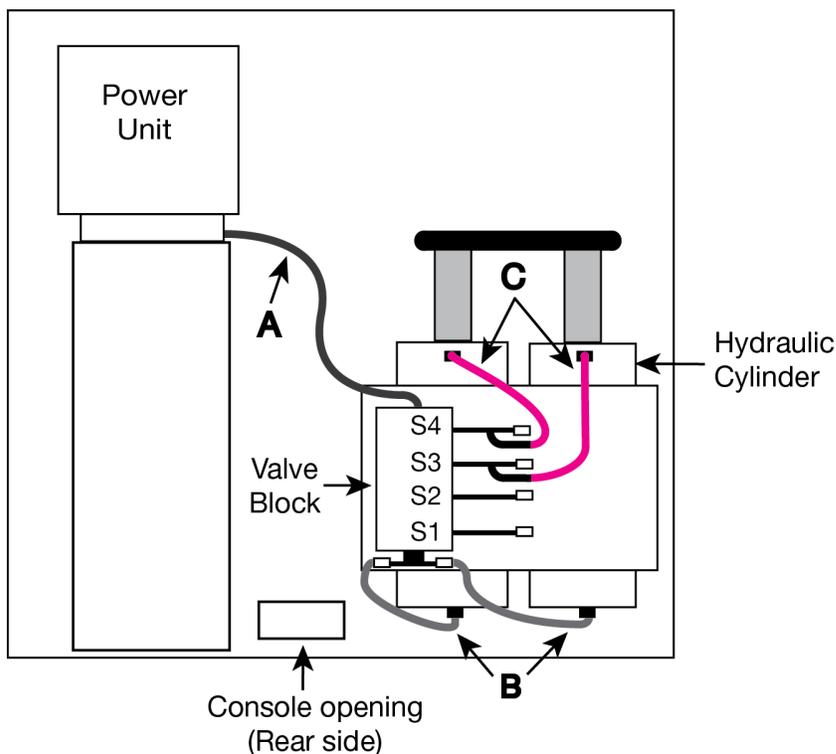
In the following drawings, the Hydraulic Hoses are labeled A through I; these letters are *not* on the Hoses. You have to match the Hose letter with the length information.

⚠ CAUTION Be careful working with loose Hydraulic Hoses; they are easy to trip on.

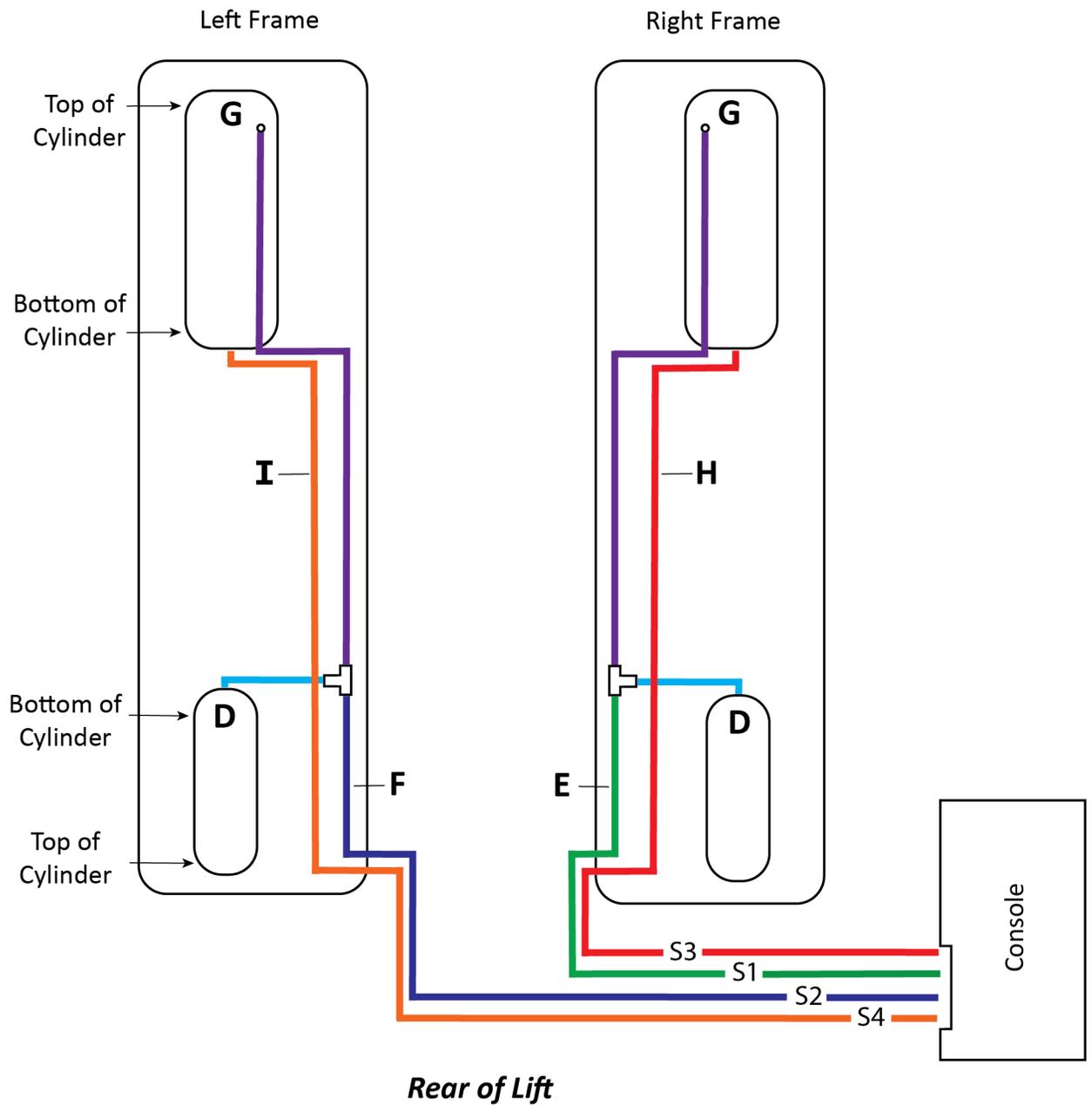
Your Lift comes with nine Hydraulic Hoses of different lengths:

Hose	Length	Qty
A	15.75" (1.3 feet) / 400 mm	1
B	19.75" (1.6 feet) / 500 mm	2
C	30" (2.5 feet) / 760 mm	2
D	57" (4.8 feet) / 1,448 mm	2
E (S1)	197" (16.4 feet) / 5,000 mm	1
F (S2)	238" (19.8 feet) / 6,047 mm	1
G	242" (20 feet) / 6,147 mm	2
H (S3)	446.5" (37 feet) / 11,340 mm	1
I (S4)	473.5" (39.5 feet) / 12,028 mm	1

The following drawing shows the hydraulic connections inside the Console.



The following drawing shows the general arrangement of how the Hydraulic Hoses are routed from the Frames to the Console.



Top view. Some components exaggerated for clarity. Drawing not to scale. Not all components shown



IMPORTANT! PLEASE READ



Avoiding Hydraulic Fluid Contamination

On occasion, contaminants such as water, dirt, or swarf (also known as chips or shavings that are left over from the production process) can get into the Hydraulic Hoses and Fittings that come with the Lift, eventually getting into the Hydraulic Fluid and potentially causing issues. Some of these issues may include one side of the Lift lowering faster than the other, Hydraulic Fluid leaking from the Power unit, slow operation, and so on.

BendPak recommends that you clean the hydraulic components that come with the Lift **prior** to making connections to the Hydraulic System. There are several ways to clean Hydraulic Hoses and Fittings:

- Use an air compressor to blow out contaminants. Clean, dry air is preferred. Keep in mind that the contaminants are going to come out the other end, so be prepared for that.
- For Hydraulic Hose ends and Fittings that are not too long, soak part of a rag in the same Hydraulic Fluid they are going to use, then use the rag to clean out the Fittings and the ends of the Hydraulic Hoses. Do not use water or other common cleaning fluids, as they should never be mixed with Hydraulic Fluid.
- Use a projectile cleaning system that shoots expandable cleaning “pellets” through the Hydraulic Hoses to clean them all the way through. Eaton and Ultra Clean make these types of systems.

Some additional steps to keep the Hydraulic Fluid clean:

- **Always use clean equipment.** If you use a dirty bucket or funnel to transfer the Hydraulic Fluid into the Hydraulic Fluid Reservoir, the more likely it is that contaminants will be introduced to the Fluid. When using cleaning rags, use a lint-free rag.
- **Cover the fittings.** During installation or when performing maintenance on the Lift, do not leave the ends of the Fittings exposed; the same applies for the Hydraulic Hoses. When you are ready to attach a Hydraulic Fitting to the Hydraulic Cylinder, make sure to remove any thread seal tape on the Cylinder left over from the shipping plugs.
- **Filter the new Hydraulic Fluid.** Just because it is new does not necessarily mean it is *clean*. Use an offline filtration cart or kidney loop system to make sure the Hydraulic Fluid is clean before being transferred into the Reservoir.
- **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.
- **Proper storage.** Keep the Hydraulic Fluid sealed in its container until ready for use. Store the Fluid in a clean, dry, and cool area.

To connect the Hydraulic Hoses to the Console:

1. Find the two Hydraulic Hoses at the Rear of each Frame.

Important: *If you placed the Console on the left side of the Lift*, make sure to undo the Hydraulic Hoses from each Frame and swap them **before** you route the Hydraulic Hoses through the Hose Troughs. It is important that you reinstall the Hoses at the same locations from which you removed them; the longer Hydraulic Hose of each set connects to the top of the Front Hydraulic Cylinder (a Tee Fitting), and the shorter Hose connects to the bottom of the same Cylinder. Refer to the previous drawing for more information.

2. Uncoil the roll of Hydraulic Hoses and then push the Hoses all the way through the Hose Trough.
Do the same for the other Frame.

3. Gather the Hydraulic Hoses at the bottom of the Hose Troughs and bring them to the opening at the bottom of the Console, then push the Hoses through the opening.

4. Open the front doors of the Console to have access to the Valve Block inside, if you have not already done so.

5. Connect the four pre-marked Hoses to the corresponding marked port on the Valve Block.

(Example: Hose S1 connects to the S1 Hydraulic Port on the Valve Block.)

6. The Power Unit should already be connected to the Valve Block.

If it is not, attach a Hydraulic Elbow Fitting (-06 JIC x -06 ORB) to the closest Hydraulic Power Out connector on the Power Unit, attach a Hydraulic Elbow Fitting (-06 NPT L x -04 JIC) to the top of the Valve Block, then connect the two Elbow Fittings using Hose A.

See [Connect the Power Unit](#) for more about the connector locations.

Once all connections have been made, check for loose connections; secure them if you find any.

Working with Compression Fittings and Tubing

Your Lift comes with ¼ inch, black, polyethylene Tubing (also called Poly-Flo® Tubing) that is used with Compression Fittings to create the Air Lines.

Important: Compression Fittings are not the same as Hydraulic Fittings; they work differently. ***This section covers Compression Fittings only.***

The components involved with Compression Fittings include:

- **¼ inch, black, polyethylene Tubing.** The Air Lines require multiple Tubing pieces. Create the Tubing pieces from the long roll of Tubing supplied with your Lift.
- **Elbow Compression Fittings.** The Air Lines use four Elbow Compression Fittings.
- **Tee Compression Fittings.** The Air Lines use three Tee Compression Fittings.
- **Nuts, Ferrules, Rods, and Threads.** Many of the connectors on the 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.

1. 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.
2. Slide the Ferrule over the Tubing, away from the Fitting and towards the Nut.
3. With the Nut and the Ferrule out of the way, push the Tubing further over the Rod until it stops.
4. 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.

5. Tighten the Nut.

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

Connect the Air Lines

Your Lift uses air pressure in two ways:

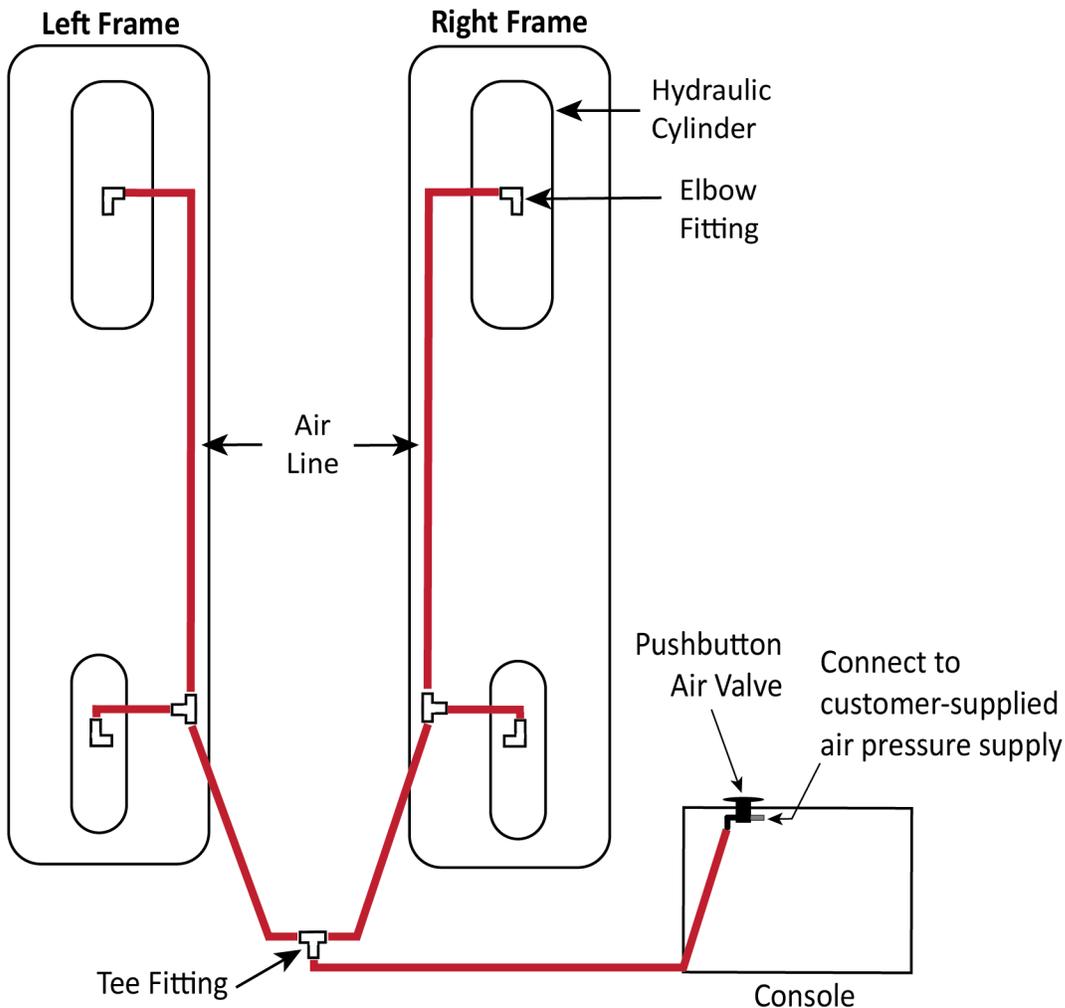
- It helps lower the Platforms. The Air Line connects to the Air Line connector at the top of the Hydraulic Cylinder.
- It pushes the Lift off the Safety Locks so you can lower the Platforms. The Air Line also connects to the Air Cylinders.

It is the responsibility of the Lift owner to provide an air pressure supply (minimum 50 psi / 3 to 25 CFM, regulated to a maximum of 125 psi).

The air pressure supply is distributed to the Air Cylinders and the Air Lower connectors using .25 inch black, plastic Tubing (also called Poly-Flo® Tubing).

Your Air Lines come pre-attached to the Frames (like the Hydraulic Hoses); you need to cut three tubing lengths to connect the Air Lines from the Rear of each Frame to the Pushbutton Air Valve (the Console).

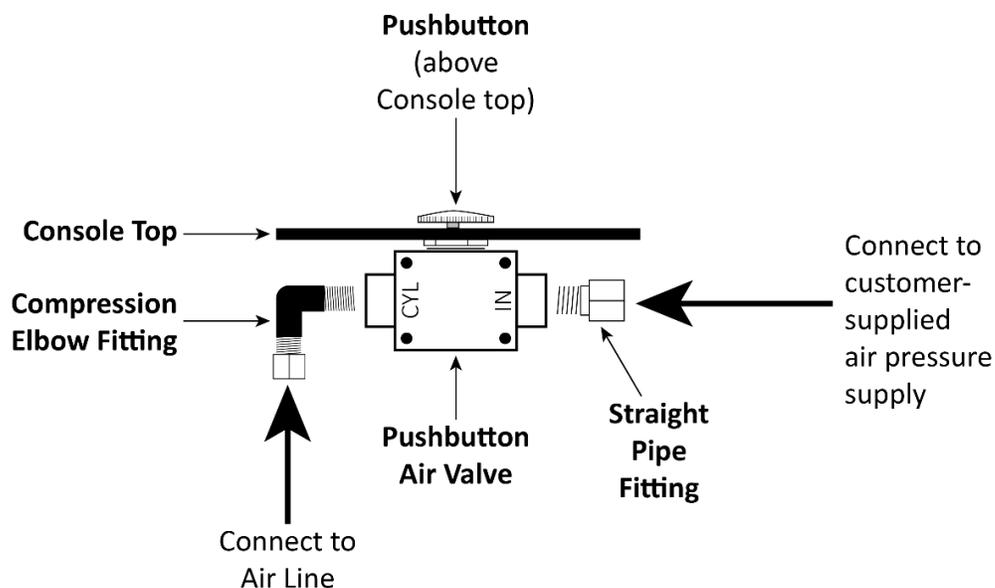
The following drawing shows how to route the Air Lines to the Pushbutton Air Valve.



Drawing shows a top view of the Frames and a front view the Console; the Console is normally perpendicular to the Frames. Not necessarily to scale. Not all components shown.

To Route the Air Lines to the Console:

1. Undo the roll of Air Lines at the Rear end of each Frame.
2. Determine the Tubing lengths needed to reach from the Rear of each Frame, through the Hose Trough, and to ground where a Tee Fitting will go.
3. Cut the necessary tubing lengths for each Frame.
4. Route the tubing through the Hose Trough.
Do the same for the other Frame.
5. Connect the two Air Lines using a Compression Tee Fitting, as shown in the previous drawing.
See [Working with Compression Fittings and Tubing](#) for more information.
6. Cut a final tubing length to connect from the Compression Tee Fitting to the Console.
7. 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 tubing length to the compression end of the Elbow Compression Fitting.
8. Also on the underside of the Console top, attach the male end of a Straight Expander 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 Expander Fitting.



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

Anchor the Hose Covers

The Hose Covers protect the Hydraulic Hoses and the Air Line as they are routed to the Console; they go underneath the Rear of the Frames.

Your Lift comes with two Covers that need to be bolted down:

- **A Short Cover.** Spans from the outside edge of the Right Frame to the Console.
- **A Long Cover.** Spans the overall width of the two Frames, has two Windows that face the inside of the Lift to route the Hydraulic Hoses and Air Line through.

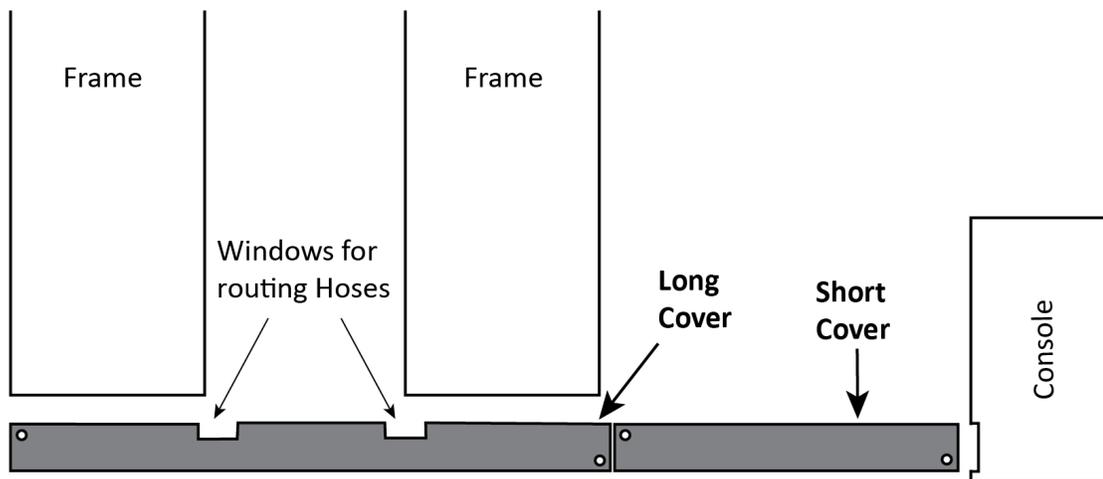
⚠ WARNING Watch your head when installing the Hose Covers; the Ramps and other components of the Lift may be sticking out from the Frames. Always take notice of your workspace to avoid injury.

To install the Hose Covers:

1. Start with the Long Cover, orienting it so that the Windows are facing the Base Plates for the Hoses to be routed through.

Make sure the Shorter Cover lays between the outside of the Right Frame and the Console.

The following drawing shows how to position the Covers at the Rear of the Frames.



Drawing shows Covers are separated from Frame for clarity. Drawing not to scale. Not all components are shown

2. Use chalk or a marker to mark where the anchoring holes will be on the Concrete, then set the Covers aside for now.
3. Drill four holes in the marked spots with a 5/16" drill to a depth of 1-1/2".
4. Thoroughly remove all dust from the holes and insert four plastic Concrete Anchors in the holes that were drilled.
Use size M5 x 30 mm Floor Anchors.
5. Align the Hose Covers with the holes you created, then fasten them to the ground using the appropriate screws.
Use size M5 x 55 mm Screws.

Contact the Electrician

As mentioned previously, there are certain installation tasks that **require** a certified Electrician.

⚠ DANGER All wiring **must** be performed by a licensed, certified Electrician. If someone who is not a certified Electrician attempts these tasks, they could be electrocuted, resulting in serious injury or death.

The Electrician needs to:

- **Connect to a Power Source.** A power source is required. The Power Cable and Plug are *not* included with the Lift. Have your Electrician connect a power cord with appropriate plug to the electrical box on the Lift (for connection to a power outlet) or have them wire it directly into the electrical system at the Lift location.
- **Install a Power Disconnect Switch.** Ensures you can quickly and completely interrupt electrical power to the Lift in the event of electrical circuit fault, emergency situation, or when equipment is undergoing service or maintenance. You must put it within sight and easy reach of the Lift operator. Refer to **Install a Power Disconnect Switch** for more information.
- **Install a Thermal Disconnect Switch.** *Optional.* Ensures the equipment shuts down in the event of an overload or an overheated motor. Refer to **Install a Thermal Disconnect Switch** for more information. ***The motor on the Power Unit is not thermally protected.***

The Electrician is responsible for providing:

- an appropriate power cable and plug for connecting to the power source
- a Power Disconnect Switch
- a Thermal Disconnect Switch (the Power Unit's motor is **not** thermally protected)

Refer to **Wiring Diagrams** for additional wiring information.

Connect the Power Unit

Some components of the Power Unit come assembled from the factory; you still need to make connections, they are described here.

The standard Power Unit for your Lift is 208-230 VAC at 60 Hz, 1 Ph.

⚠ DANGER All wiring **must** be performed by a licensed, certified Electrician. If someone who is not a certified Electrician attempts these tasks, they could be electrocuted, resulting in serious injury or death.

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

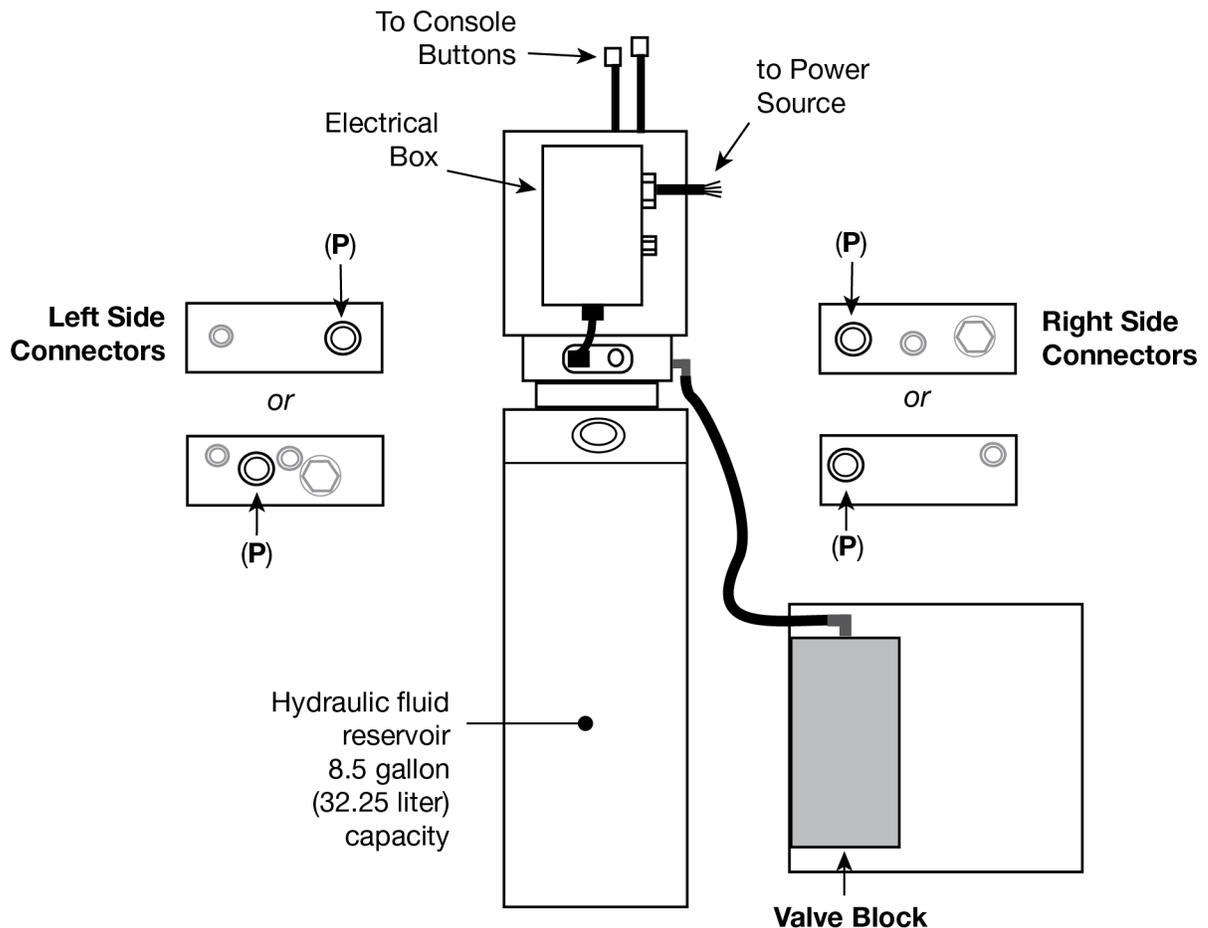
⚠ CAUTION The Power Unit's motor is **not** thermally protected.

The Power Unit has multiple connections:

- **Power Source.** The Power Unit connects to an incoming power source.
- **Controls.** The Power Unit connects to the controls on the top of the Console.
- **Hydraulic System.** The Power Unit connects to the Valve Block.
- **Hydraulic Reservoir.** The Power Unit **requires** Hydraulic Fluid.

Hydraulic Out Ports on the Power Unit are labeled **P** below. Port labels on individual Power Units may be slightly different or may not be present at all.

The following drawing shows the connections to make to the Power Unit.



To connect the Power Unit:

1. Open the front doors of the Console, if they are currently in place.

For the Raise and Lower Buttons on the Console, the wiring comes from the factory connected to the appropriate Button.

2. For the connection to the hydraulic system, the Power Unit should already be connected to the Valve Block.

See **Connect the Hydraulic Hoses** for more information.

3. For the Power Source, have your Electrician locate the Pigtail coming out of the Electrical Box, open the Electrical Box, remove the Pigtail, and then wire a Power Cord (with appropriate Plug) **inside** the Electrical Box.

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

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

⚠ DANGER All wiring **must** be performed by a licensed, certified Electrician. If someone who is not a certified Electrician attempts these tasks, they could be electrocuted, resulting in serious injury or death. Do not perform **any** maintenance or installation on the Lift without first making sure that main electrical power has been disconnected from the Lift and **cannot** be re-energized until all procedures are complete.

Important electrical information:

- Improper electrical installation can damage the Power Unit Motor; this damage is not covered under warranty.
 - Use a separate circuit breaker for each Power Unit.
 - Protect each circuit with a time-delay fuse or circuit breaker. For a 220 VAC, single phase circuit, use a 25 amp or greater fuse. For a 380 VAC, use a 15 amp or greater fuse.
4. For the Hydraulic Fluid Reservoir, you need to fill it with approved Hydraulic Fluid.

The Power Unit's Hydraulic Fluid Reservoir must be filled with 8.5 gallons / ~32 liters of Hydraulic Fluid or automatic transmission fluid before you begin operation. When you receive it, the reservoir is empty; the Power Unit will not work correctly until it is filled with approved fluids.

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

Install a Power Disconnect Switch

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

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

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

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

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

 **DANGER** Installing a Thermal Disconnect Switch **must** be performed by a licensed, certified Electrician. If your organization has Lockout/Tagout policies, make sure to implement them after connecting to a power source.

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

Install a Thermal Disconnect Switch

 **WARNING** The motor on the Power Unit supplied with your Lift has no thermal overload protection.

Have the Electrician connect a motor Thermal Disconnect Switch or overload device that will make sure the equipment shuts down in the event of an overload or an overheated motor.

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

High running amps that exceed the motor's full load amps (FLA) rating may result in permanent damage to the motor.

BendPak strongly recommends you **not** exceed the rated duty cycle of the motor.

Anchor the Bases

Before you anchor your Lift, make sure the two Frames are correctly aligned. Make sure that you have all the appropriate overhead and surrounding clearances.

⚠ CAUTION Poor alignment can impact how the Lift raises and lowers. Take the time now, before you anchor the Lift in place, to make sure it is correctly aligned.

Concrete specifications are:

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

Anchor Bolt specifications are:

- **Length:** 4.75 inches (120.5 mm)
- **Diameter:** .75 inch (19 mm)
- **Anchor torque:** 85-95 pound feet (do *not* torque less than 80 or more than 105)

⚠ WARNING Your Concrete and Anchor Bolts **must** meet these specifications. Only install your Lift on a Concrete surface. If you install the Lift on asphalt or any other surface, or your Concrete or Anchor Bolts do not meet these specifications, it could lead to product damage, Vehicle damage, personal injury, or even loss of life.

BendPak Lifts are supplied with installation instructions and Concrete fasteners meeting the criteria as prescribed by the current version of the American National Standard “Automotive Lifts – Safety Requirements for Construction, Testing, and Validation” ANSI/ALI ALCTV.

⚠ WARNING Use only the Anchor Bolts that came with your Lift. If you use components from a different source, you void your warranty and compromise the safety of everyone who installs or uses the Lift.

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

The following drawing shows the locations of the Anchor Bolt Holes.



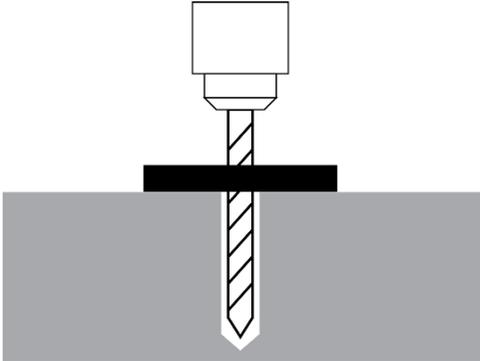
Drawing not necessarily to scale. Not all components are shown.

To anchor the Bases:

1. Find the necessary hardware: Anchor Bolts (5), Nuts (5), and Washers (5) **per Base Plate**.
2. Make sure the Bases are where you want them.

Important: Once you anchor the Bases into place, it is difficult to change the location; The Anchor Bolts are not easily removed. BendPak strongly recommends making sure the Bases are in the correct location **before** anchoring the Bases into place.

3. Using the holes in the Bases as guides, drill the holes for the Anchor Bolts 4 inches deep.

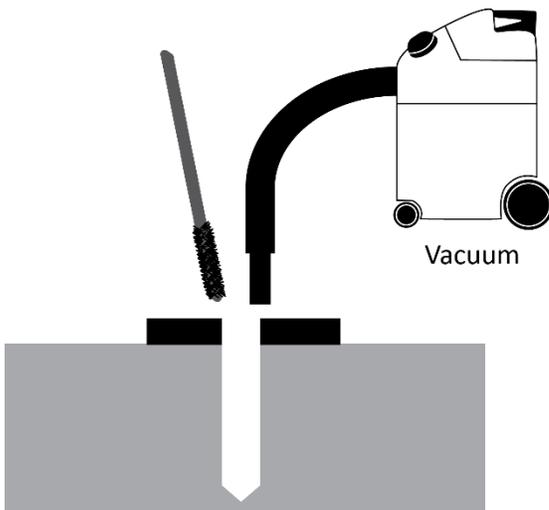


Go in straight; do not let the drill wobble.

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

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

4. Vacuum each hole clean.

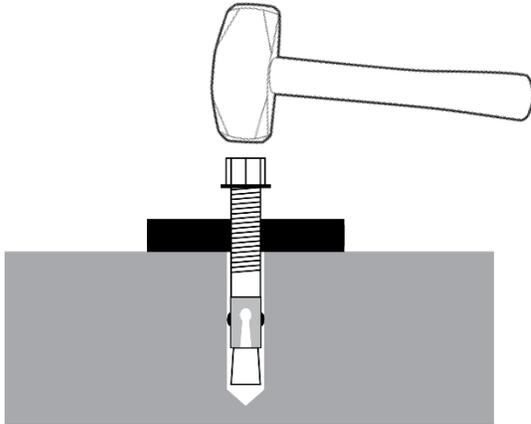


If a Vacuum is not available, you can use a wire brush, hand pump, or compressed air; just **make sure to thoroughly clean each hole**.

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

5. Make sure the Washer and Nut are in place, then insert the Anchor Bolt into the hole.

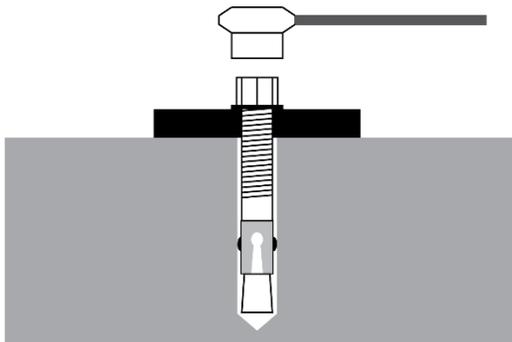
The Expansion Sleeve of the Anchor Bolt may prevent the Anchor Bolt from passing through the hole in the Base; this is normal. Use a hammer or mallet to get the Expansion Sleeve through the Base and into the hole.



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.

6. Hammer or mallet the Wedge Anchor the rest of the way down into the hole.
Stop hammering when the Washer is snug against the Base.
7. Wrench each Nut **clockwise** to the recommended installation torque, 85-95 pound feet, 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.

Anchor the Console

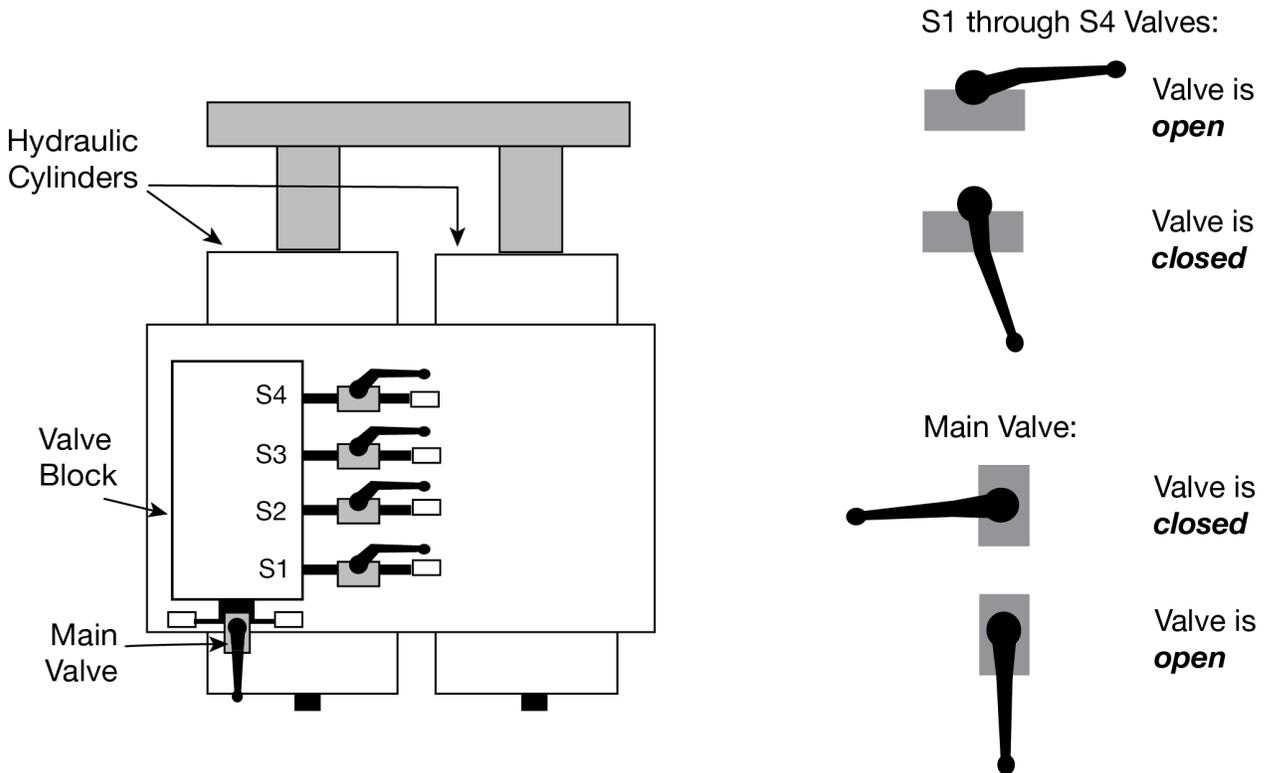
If you have not yet anchored the Console, do so now.

Refer to [Anchor the Console](#) for instructions.

Level the Lift

Before putting your Lift into normal operation, you need to raise and lower it a few times; you want to make sure that the Frames are raising and lowering equally. This also helps you get a feel for how to operate your Lift, ensures it is working correctly, and helps get any residual air out of the Hydraulic System.

The following drawing shows the connections to the Valve Block inside the Console.



Drawing shows inside the Console. Not necessarily to scale. Not all components are shown.

⚠ WARNING Do not level the Lift with a Vehicle on the Platforms; you can damage the Lift. If the Vehicle falls off, it could cause severe injury to anyone nearby.

To level the Lift:

1. Open the Console doors to have access to the Valve Block.
2. Make sure the Hydraulic Reservoir is full of Hydraulic Fluid.
3. Open the S1 through S4 Valves on the Valve Block.

The Main Valve remains closed.

4. Press **Raise** on the Console.

It takes about a minute or so before the Frames start rising, this is *normal*.

5. When the Frames rise, hold **Raise** for another four seconds, and then release **Raise**.
6. Press **Lower** until the Frames are fully lowered.
7. Repeat Steps 4 through 6 twice more, then continue to the next step.

-
8. Close Valves S3 and S4, then press **Raise** for about four seconds.
The Main Valve remains closed.
 9. Release **Raise**, then press **Lower** until the Frames are fully lowered.
 10. Repeat Steps 8 and 9 twice more, then continue to the next step.
 11. Close Valves S1 and S2, reopen Valves S3 and S4, then press **Raise** for about four seconds.
The Main Valve remains closed.
 12. After four seconds, release **Raise**, then press **Lower**.
 13. Repeat Steps 11 and 12 twice more, then continue to the next step.
 14. Press **Raise** and raise the Frames to their **Full Height**.
 15. Release **Raise**, then press **Lower**.
 16. Check the Hydraulic Fluid Reservoir for low levels of Hydraulic Fluid; add more if necessary.
If the Power Unit has a change in sound, it probably needs more Hydraulic Fluid.
 17. Open the Main Valve, then make sure the S1 through S4 Valves are closed.
 18. Press **Raise** for about four seconds, then release **Raise**.
 19. Press **Lower** to lower the Frames to the ground.
If the Frames are raising and lowering at the same time, no further adjustments are necessary; close the Console doors.
If the Frames are not raising and lowering at the same time, repeat steps 11 through 19.

Installing Accessories

The accessories available for your Lift include:

- **Tire Stops.** Placed at the front of the Lift. Hold the Front tires of your Vehicle in position.
- **Work Trays.** Placed at the Front of the Lift. Hold your tools when you are working on a raised Vehicle.
- **Flip up Ramps.** Placed at the Rear of the Lift, allows for Vehicles to be driven onto the Platforms from the Drive-up Ramps.
- **Drive-up Ramps.** Placed at the Rear of the Lift, allows for Vehicles to be driven onto the Platforms.
- **Alignment Turn Plates** (XR-12000AL only). Placed at the Front of the Platforms. Used for alignment services.

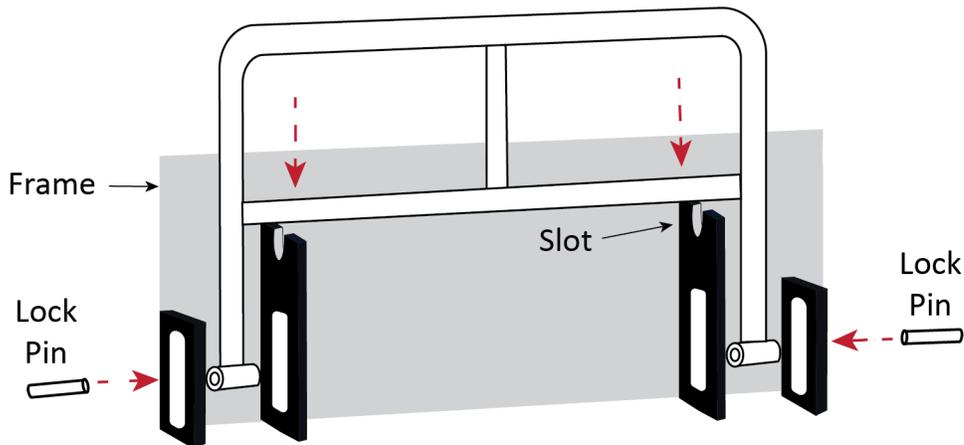
⚠ WARNING You **must** wear OSHA-approved (publication 3151) personal protective equipment at all times when installing, using, maintaining, or repairing the Lift: leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection are **mandatory**.

Tire Stops

Tire Stops attach to the Front of the Lift. They prevent the Tires of the Vehicle on the Platforms from going too forward.

To install the Tire Stops:

1. Find the two Tire Stops and Hinge Pins from the Parts Box.
2. Place the middle handle of the Tire Stop into the slots on the Frame, then slide the Lock Pins in as shown below.



Not necessarily to scale. Not all components shown.

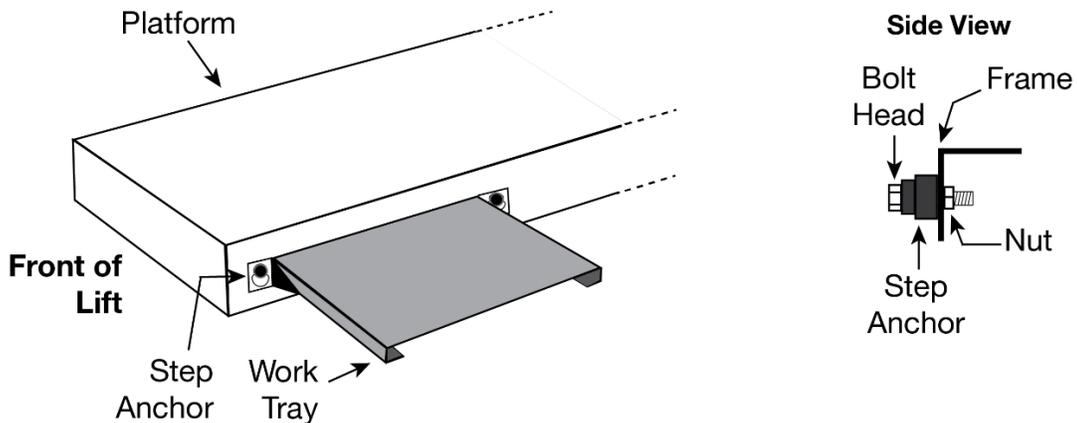
3. Secure the Lock Pins with a C Ring on both sides of the Pin.
When you want to lower the Tire Stop, lift the Tire Stop and fold it down so that it hangs.
4. Repeat steps 2 and 3 for the other Tire Stop.

Work Trays

Work Trays go at the front of the Lift, on the outside edge of the Frames; they provide space to place your tools when a Vehicle is raised on the Platforms.

To install the Work Trays:

1. Find the two Work Trays, Step Anchors, and necessary hardware.
The Step Anchors attach to the Frame and hold the Work Trays in place.
2. Attach the Step Anchors to the side of the Frame using a Bolt and Nut per each hole.
3. At the front of the Lift, align the holes on the Work Tray with the Step Anchors, and then drop the Tray into place.



View is front of the Lift, facing the Left Frame. Drawing not to scale. Not all components shown.

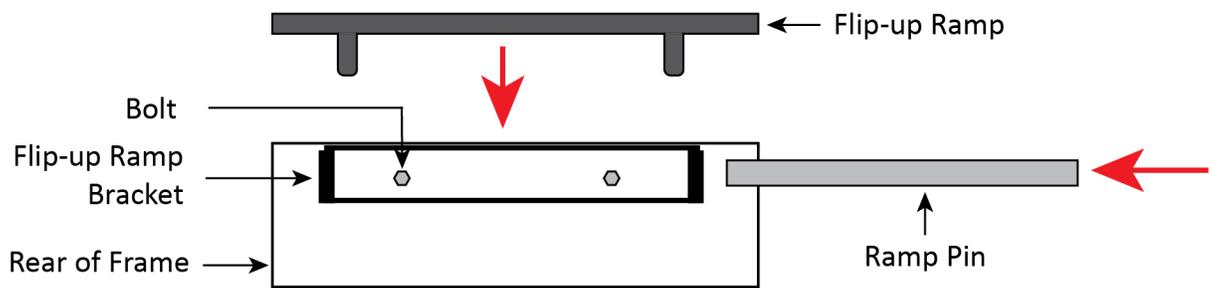
4. To remove, lift the Work Tray upward and then pull the Step away from the Ramp.
Keep the Work Trays in an accessible area for future use.

Flip-up Ramps

Flip-up Ramps go at the Rear of the Frames, allowing for Vehicles to drive onto the Platforms from the Drive-up Ramps.

To install the Flip-up Ramps:

1. Find the Flip-up Ramps (2), Flip-up Ramp Brackets (2), and Ramp Pins (2) from the Parts Box.
2. Use two M10 x 35 mm Bolts to attach the Flip-up Bracket to the Rear of the Frame.
3. Place the Flip-up Ramp between the Ramp Bracket, then slide the Ramp Pin in place.



Front view. Not to scale. Not all components shown.

4. Secure a C Ring on either side of the Ramp Pin to hold it in place.
5. Repeat steps 2 through 4 for the other Flip-up Ramp.

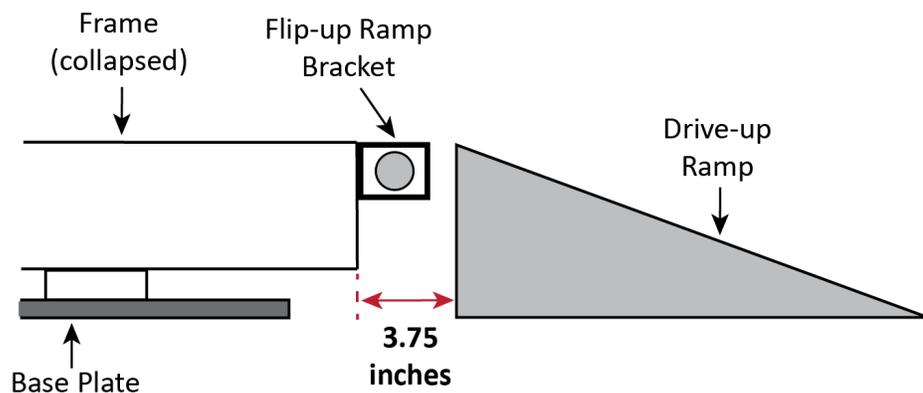
Drive-up Ramps

Drive up Ramps go at the Rear of the Frames, so that the Vehicles can be driven onto the Platforms.

To install the Drive-up Ramps:

1. Make sure the Frames are fully lowered.
2. With the Drive-up Ramps in the collapsed position, position them so that they match up evenly with the Frames, leaving about 3.75 inches (95 mm) between the Frame and the Drive-up Ramp.

The 3.75 inch figure allows room for the Flip-up Ramp Bracket.



Side view. Not necessarily to scale. Not all components are shown.

3. Use Chalk or a marker to mark where the Anchor Bolt locations will be on the Concrete, then remove the Ramps for now.
4. Drill each hole in the Concrete approximately 4 inches deep using a Rotary Hammer and 3/4 inch Concrete drill-bit.
5. After drilling the Anchor Holes, fully remove any dust build-up from each hole using compressed air or a wire brush.

Refer to [Anchor the Bases](#) for more information.

6. Align the Anchor holes on the Ramps with the holes that were just drilled in the Concrete.
7. Locate the appropriate Washers and Nuts from the Parts Bag on the Anchors and then tap each Anchor into each hole with a Hammer until the Washer is snug against the Base.
8. Torque each Nut clockwise to the recommended installation torque, 85 – 95 pound feet, using a Torque Wrench.

Important: Do *not* use an impact wrench for this procedure.

Alignment Turn Plates

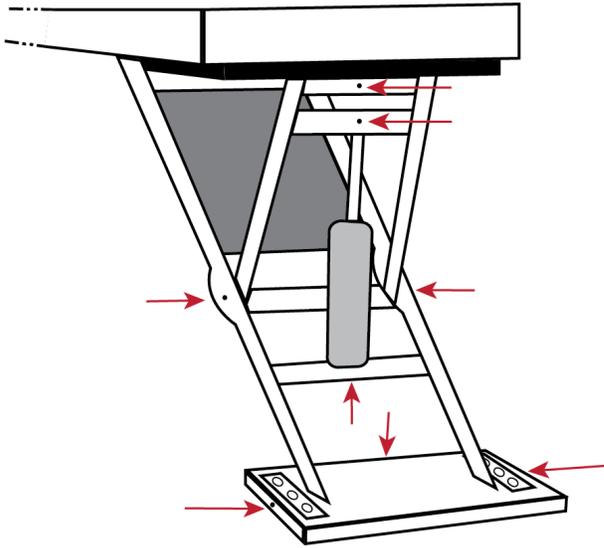
Alignment Turn Plates are used for Vehicle alignments. They are placed at the Front of the Lift.

To install the Alignment Turn Plates:

To use the Alignment Turn Plates, remove the Turn Plate covers at the Front of the Platforms and place the Turn Plates in the lowered space. If you need to make adjustments, use the leveling Bolts on the underside of the Turn Plate pockets.

Lubricate the Lift

Your Lift has eight lubrication points by each Base Plate.



Put a small amount of white lithium grease or similar on each lubrication point before you use the Lift and monthly after putting the Lift in operation.

Final Checklist Before Operation

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

- Review the [Installation Checklist](#) to make sure all steps have been performed.
- Make sure all the Fittings on the Lift are securely tightened.
- Make sure the Power Unit is getting power from the power source.
- Check the Power Unit's Hydraulic Fluid Reservoir; it must be full of approved Hydraulic Fluid or automatic transmission fluid. **You will harm the motor by running it without enough fluid.**
- Check the Hydraulic System for leaks.
- Check to see that all Anchor Bolts are correctly torqued.

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 is going to use the Lift.

Operation

This section describes how to operate your Lift.

⚠ 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 Ramp or a Platform. **When the Lift is moving, keep all people, animals, and objects at least 30 feet away from it.**

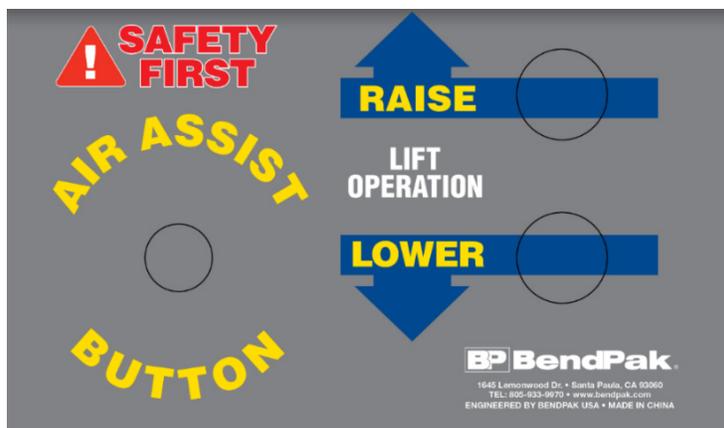
Lift Operation Safety

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

- **Check the Lift.** Check the Lift for any missing, heavily worn, or damaged parts. Do not operate the Lift if you find any issues; instead, take it out of service, then contact your dealer, email techsupport@bendpak.com, visit bendpak.com/support, or call **(800) 253-2363**, extension 196.
- **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 people or animals 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 Platform. **When raising the Lift, do not leave it until it is positioned 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, alcohol, or medication 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. Never raise just one side, one corner, or one end of a Vehicle.

The Console

Operation of the Lift is controlled via the Console.



The controls on the Console are:

- **Raise** Button. Raises the Platforms.
- **Lower** Button. Lowers the Platforms.
- **Air Assist** Button. Releases the Safety Locks so that the Platforms can be lowered. *If you do not press the Air Assist when pressing the Lower Button, the Lift will stop at the closest Safety Lock.*

Raising a Vehicle

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

To raise a Vehicle:

1. Make sure the Platforms are on the ground. If they are not, move them to the ground.
2. Drive the Vehicle onto the Platforms.

When driving a Vehicle onto or off the Platforms, try to keep the wheels in the middle of the Platforms.

Put the Vehicle in park, put on the parking brake, and turn off the engine.

If the Vehicle is a manual transmission, put it into first gear before turning it off. You do not want the Vehicle moving while it is raised on the Lift.

3. Get out of the Vehicle and make sure the wheels are securely on the Platforms.

If any part of the wheel is not securely on the Platform, carefully drive the Vehicle back off the Lift and then drive it back on, making sure to keep the wheels in the middle of the Platforms.

4. Walk completely around the Vehicle and make sure there are no obstructions or any other issues that will interfere with the raising of the Lift. If there are, fix them before raising the Vehicle.
5. At the Console, press and hold the **Raise** button.

 **WARNING** Do *not* make any adjustments to the Valve Block with a Vehicle raised on the Platforms; the Frames may become uneven and a Vehicle could fall off, resulting in property damage or serious injury to anyone nearby.

If the Lift becomes unstable or the Vehicle begins moving, release the **Raise** button immediately and carefully lower the Lift back down to the ground.

6. When the Platforms reach the desired height, go up a little bit more, then release the **Raise** button.
7. Press the **Lower** button briefly to move the Lift down onto the most recently passed Safety Lock and make sure that all Safety Teeth on the Top Safety Arm are engaged.

 **WARNING** Only leave your Lift either engaged on a Safety Lock or fully lowered.

8. With the Platforms securely on a locking position, check around the Vehicle to make sure everything looks good.

If you see anything wrong, fix it before anyone gets near the Platforms.

About Safety Locks

Each Frame comes with its own Safety Lock mechanism. Safety Locks hold a raised Vehicle in place once the Safety Locks are engaged.

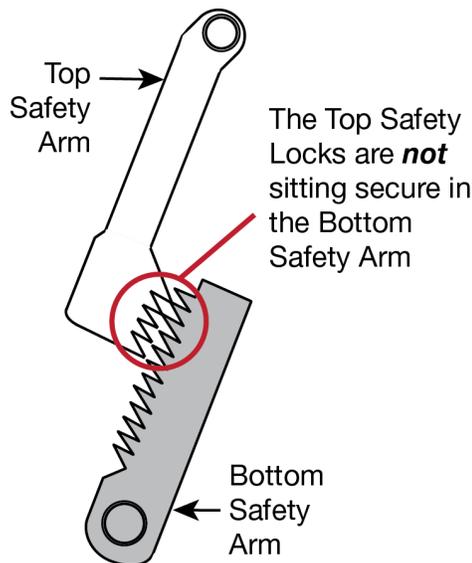
Safety Locks serve two important functions:

- **Safety.** Safety Locks hold the Platforms in place. Once engaged on Safety Locks, the weight of the Vehicle pressing down holds the Platforms in place. If the power goes out, the Safety Locks hold the Platforms, and anything on them, in place.

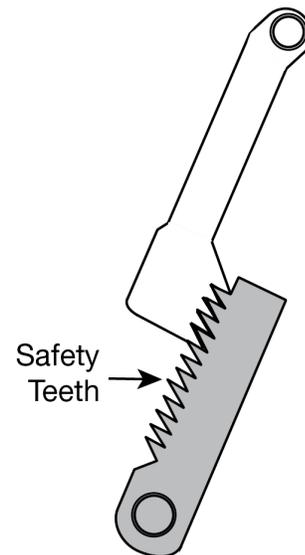
⚠ WARNING Although rare, it is possible for Hydraulic Fluid in the Hydraulic Cylinders to leak, causing the Lift to slowly come down if it is not engaged on its Safety Locks. **When you are operating your Lift, only leave it on a Safety Lock or fully lowered.**

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

The following drawing shows the general movement of the Safety Locks as they engage.



Not engaged on a Locking Position.



Engaged on a Locking Position.

To place your Lift onto a Safety Lock:

1. At the Console, press **Raise**.
The Platforms rise.
2. When the Platforms are slightly past the desired height, release **Raise**.
The Lift stops rising.
3. Press **Lower** briefly to move the Lift down onto the most recently passed Safety Lock.

⚠ WARNING Do not raise the Platform a random distance; make sure to leave it engaged on a Safety Lock or fully lowered.

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.
This moves the Lift off of the Safety Locks.
3. After a second or two, release the **Raise** button.
4. Press and hold the **Safety Lock Release** button, then press and hold the **Lower** button.
If you do not press and hold the Safety Lock Release, the Lift will stop at the next Safety Lock.
5. When the Platforms are fully lowered, release both buttons.
6. Carefully drive the Vehicle off of the Platforms.

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; if the power is re-energized during maintenance, you or someone else could be electrocuted. If your organization has Lockout/Tagout policies, make sure to implement them after connecting to the power source.

 **WARNING** Always use Jack Stands for any maintenance on the Lift. Never go under the Frames unless Jack Stands are securely in place.

To maintain your Lift:

- **After one hour of use:** Check the Hydraulic Fluid levels. Refill if low.
- **Daily:** Keep the Lift clean. Wipe up any 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.***
- **Daily:** Check all Air Lines and Hydraulic Hoses for excessive signs of wear.
- **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 Hydraulic Fluid levels. Refill if low.
- **Every two months:** Check all Anchor Bolts to make sure they are tight. If not, tighten them.

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

Troubleshooting

This section describes how to troubleshoot your Lift.

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

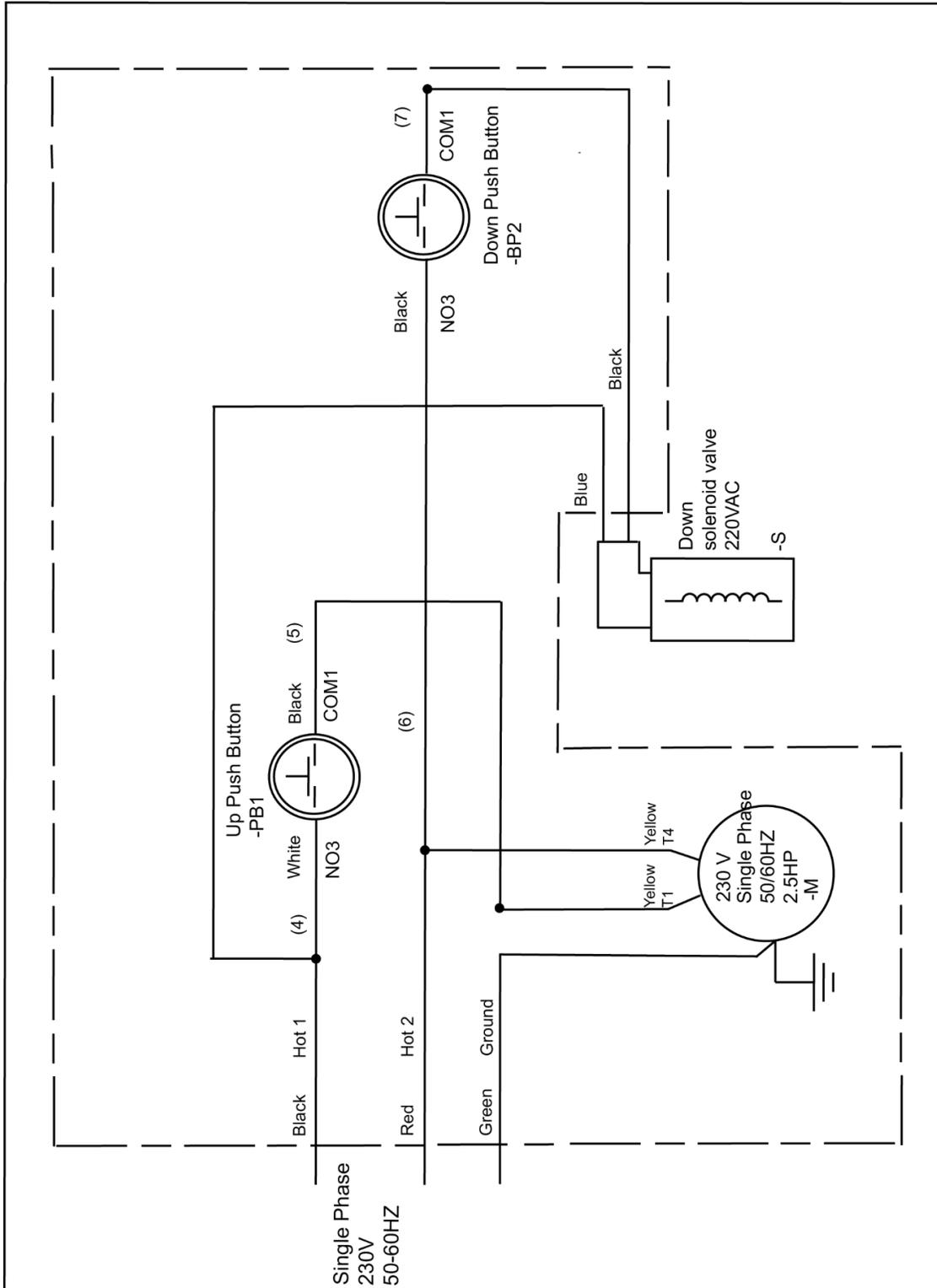
Important: All repair work **must** be done by qualified personnel.

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. This is called bleeding the cylinders.
Platforms do not go up or down.	Make sure the Power Unit is connected to an appropriate power source. Make sure none of the Hydraulic Hoses are pinched or leaking. Make sure there is sufficient Hydraulic Fluid in the reservoir on the Power Unit. Make sure Lift is not overloaded.
Hydraulic Fluid is old or dirty.	Replace the dirty fluid with clean, approved Hydraulic Fluids, such as Dexron III, Dexron VI, Mercon V, Mercon LV, Shell Tellus S4 / S3 / S2, or comparable.
Platforms make odd noises when in use.	Lubricate hinge points using white lithium grease.
Platforms are slowly lowering on their own.	Make sure both Platforms are on Safety Locks. Only leave the Lift fully lowered or engaged on Safety Locks.

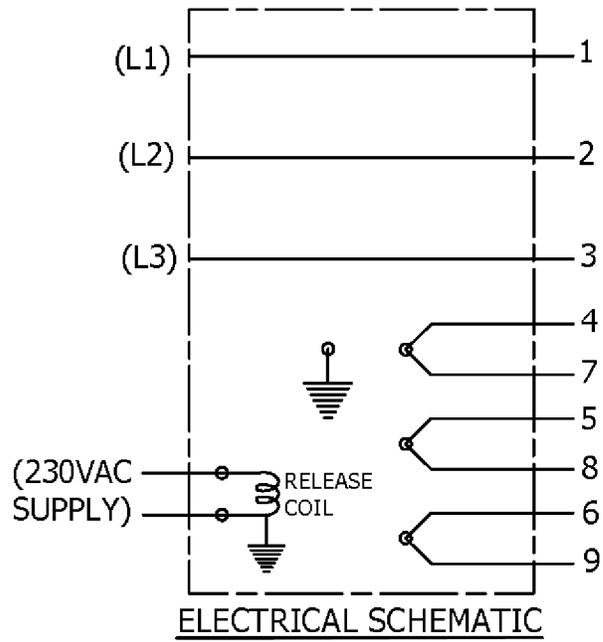
If you continue to have problems with your Lift, take the Lift out of service, then contact your dealer, visit bendpak.com/support, email techsupport@bendpak.com, or call **(800) 253-2363**, extension 196.

Wiring Diagrams

5585320



5585321



Labels

A



G



B



C



D



H



E



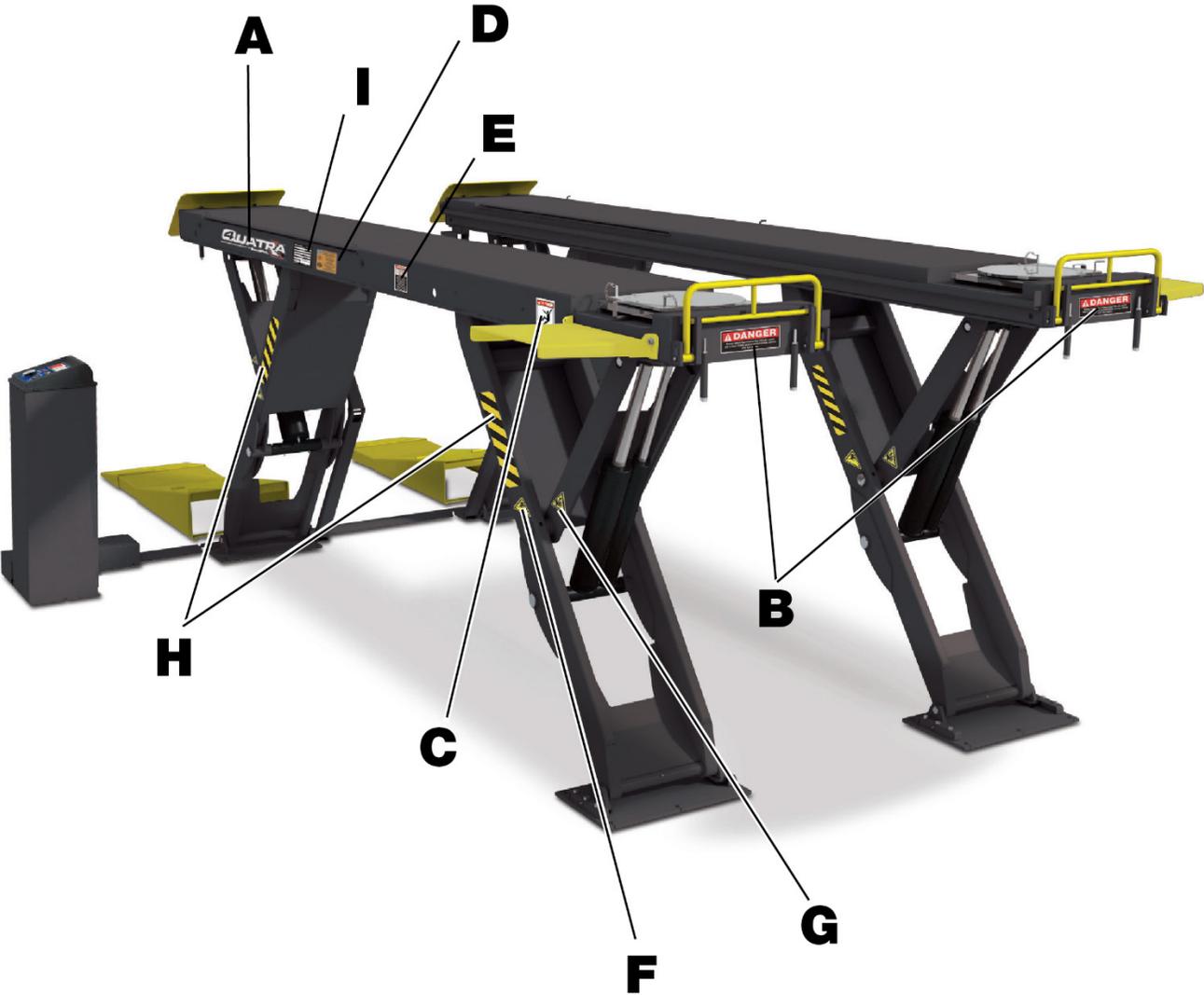
F



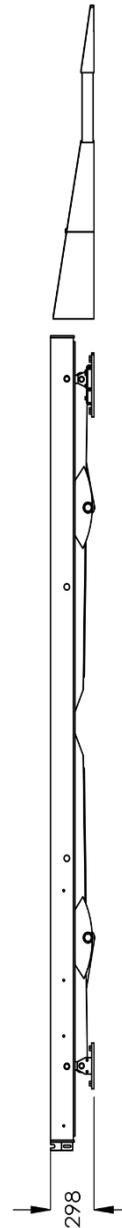
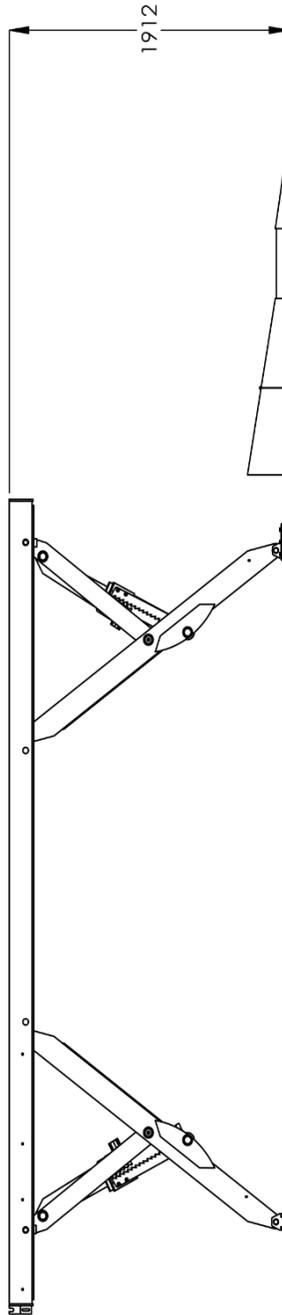
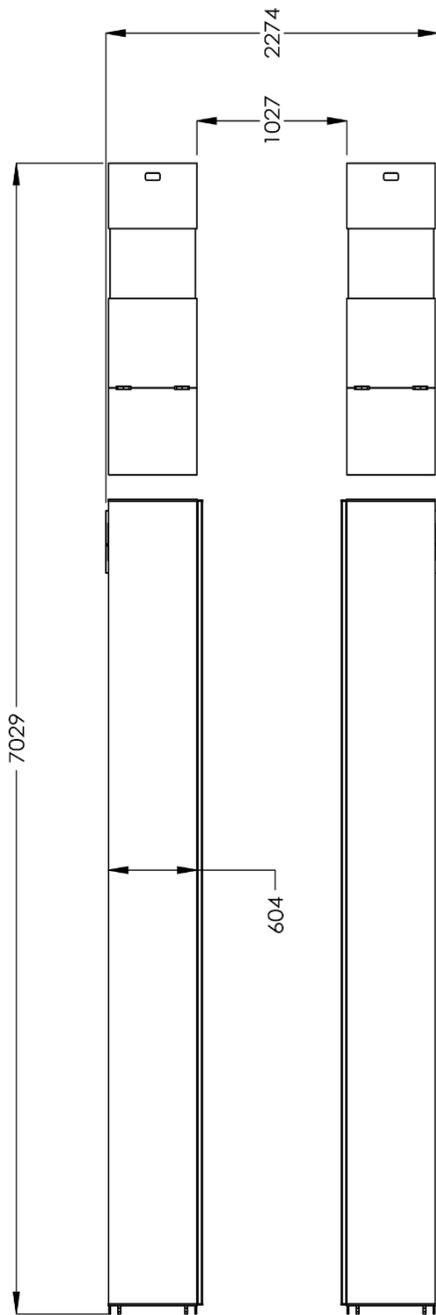
I



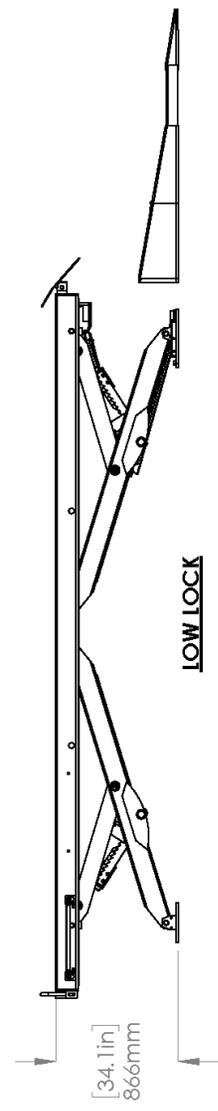
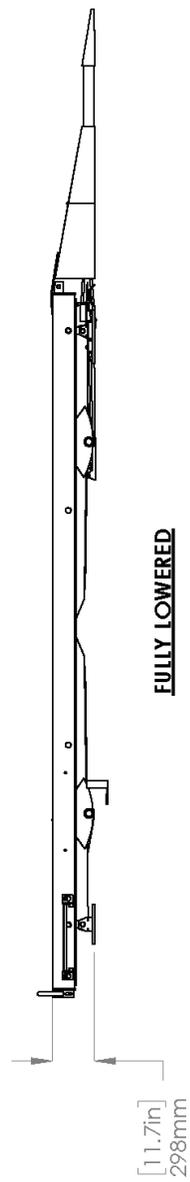
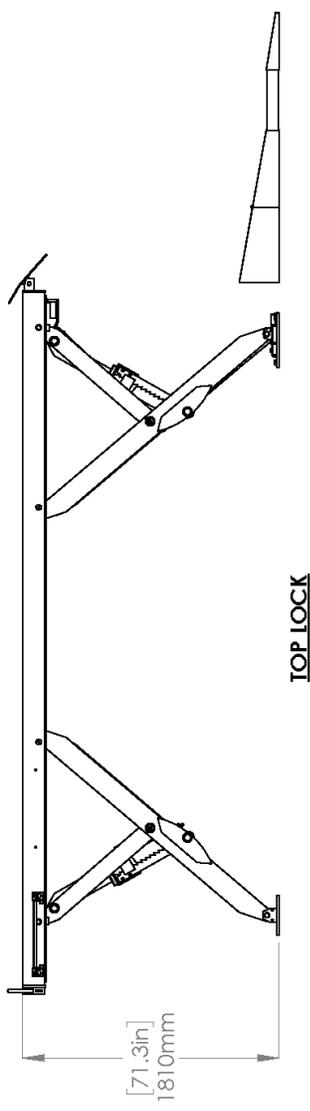
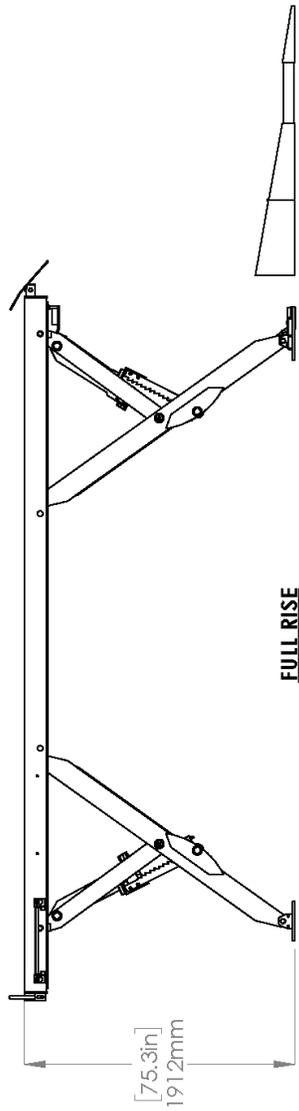
XR-12000L & XR-12000AL Product Label Positioning



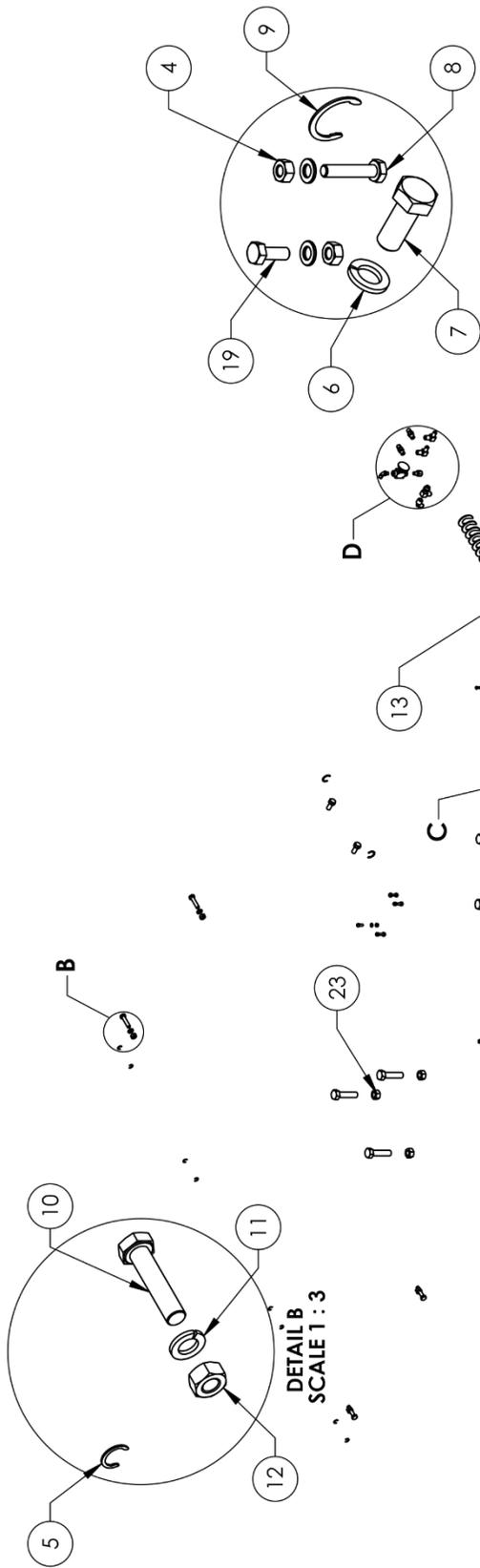
Parts Drawings



BendPak 1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE:	XR-12000L PRODUCTION LIFT VER C
SIZE DWG. NO.	A 5260188
REV	D
SCALE: 1:40	
SHEET 2 OF 2	



BP BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE: XR-12000L PRODUCTION LIFT VER C	
SEE DWG. NO.	REV
A 5260188	G
SCALE: 1:40	
SHEET 3 OF 3	



DETAIL A
SCALE 1 : 3

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5535119	M5 x 30mm FLOOR ANCHOR	4	---
2	5530312	RHP'S M5 x 52mm	4	---
3	5545005	M6 FLAT WASHER	8	PRE
4	5535112	NUT M6 x 1.0	8	---
5	5540116	TRUARC Ø12mm 5103-50	4	---
6	5545701	WASHER M12 SPRING LOCK	4	---
7	5530152	HHB M12 x 1.75 x 30mm	4	---
8	5530047	HHB M6 x 1 x 30mm	4	---
9	5540006	SNAP RING TRUARC 5103-100	4	---
10	5530167	HHB M10 x 1.5 x 45mm	4	---
11	5545700	WASHER M10 x Ø18 SL	4	---
12	5535998	NUT M10 x 1.5	4	---
13	5545535	C WASHER SHIM FOR LIFTS	20	---
14	5550489	FIG TEL 1/4-1/4 TUBE INS	1	---
15	5590175	PUSH BUTTON AIR VALVE	1	---
16	5550486	FIG NPL 02 NPT x 04 NPT	1	---
17	5550410	FIG ELB 1/4 TUBE INS 1/8 NPT	1	---
18	5550183	FIG ELB 06 JIC 06L ORB	1	---
19	5530019	HHB M6 x 1 x 16	4	---
20	5530016	FIG JIC 04 JIC 06 NPT	2	---
21	5550147	FIG NPL 04 JIC x 04 NPT	2	---
22	5530086	FIG ELB 04 NPT x 04 JIC	1	---
23	5535106	HEX NUT M18 x 2.5	12	---
24	5530264	HHB M18 x 2.5 x 7.5	12	---
			12	A

DO NOT SCALE DRAWING

NAME	DATE
TM	01/15/2013
DB	10/12/2016

DRAWN: TM
CHECKED: DB

1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

BendPak
EQUIPMENT DIVISION

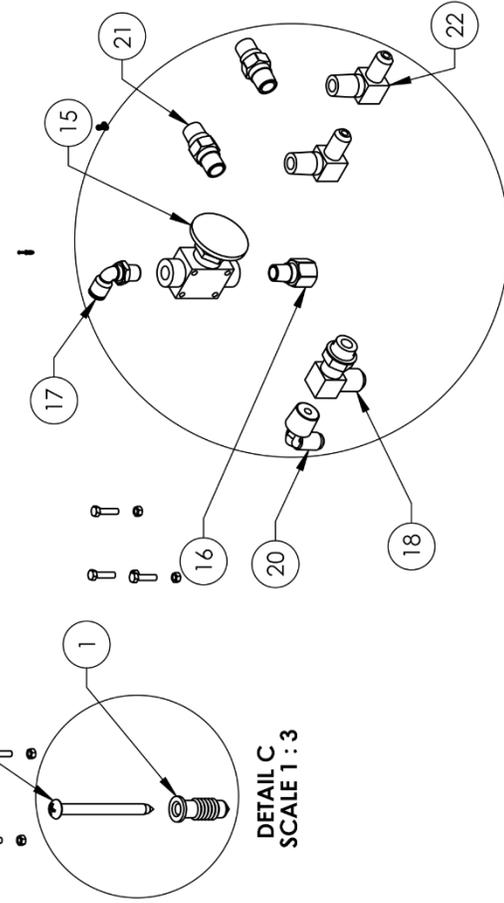
TITLE: XR-12000 SERIES PARTS BAG

THIRD ANGLE PROJECTION

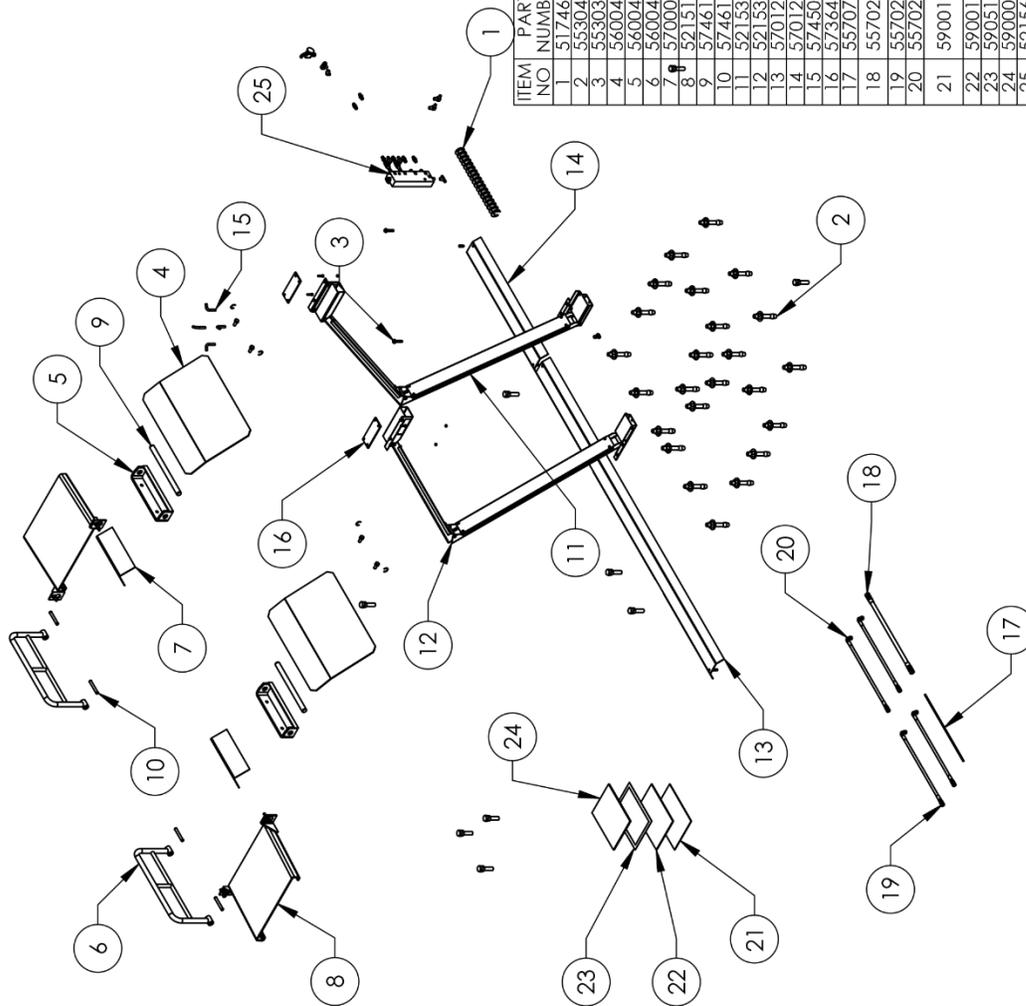
SIZE DWG. NO. A 5174680

REV C

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. NO PART OF THIS DRAWING IS TO BE REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. © 2016



DETAIL D
SCALE 1 : 4



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5174680	XR-12000 SERIES PARTS BAG	1	C
2	5530456	AB 3/4" x 4 - 3/4"	24	-
3	5530326	AB Ø3/8" x 2-1/4"	2	B
4	5600437	XR-12 SERIES FLIP UP RAMP WELDMENT	2	A
5	5600435	XR-12 SERIES FLIP UP RAMP BRACKET WELDMENT	2	A
6	5600436	XR-12 SERIES TIRE STOP WELDMENT	2	B
7	5700072	WHEEL CHOCK	2	A
8	5215179	WORK STEP	2	B
9	5746114	XR-12 SERIES FLIP UP RAMP PIN	2	A
10	5746115	XR-12 SERIES TIRE STOP HINGE PIN	4	A
11	5215364	XR-12000 SERIES RIGHT SIDE HOSE TROUGH ASSEMBLY	1	E
12	5215365	XR-12000 SERIES LEFT SIDE HOSE TROUGH ASSEMBLY	1	E
13	5701290	XR-12000 SERIES UNDER RAMP FLOOR TROUGH	1	D
14	5701293	XR-12000 SERIES FLOOR TROUGH	1	D
15	5745050	SLIP PLATE LOCK PIN	4	A
16	5736461	XR-12000 SERIES HOSE TROUGH RAMP CONNECTOR PLATE	2	A
17	5570795	1/4" POLY-FLO TUBING 400mm Ds	4500mm	-
18	5570206	PL-6SR XR-12000 SERIES HYDRAULIC HOSE ASSY Ø10 x 400mm Ds	1	B
19	5570211	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 500mm S8	2	A
20	5570212	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 760mm S8	2	A
21	5900152	ALIGN OIM OPERATION INSPECTION & MAINTENANCE	1	-
22	5900147	SAFETY MANUAL ALI / SM 93-1	1	-
23	5905151	SAFETY TIPS CARD ALI-ST 90	1	-
24	5900050	XR-12000/12000A INSTALLATION MANUAL	1	-
25	5215628	XR-12000 VALVE BLOCK ASSEMBLY	1	A

DO NOT SCALE DRAWING

DRAWN	TM	01/21/2013
CHECKED	DB	10/12/2016

THIRD ANGLE PROJECTION

SMILEY FACE SYMBOL

PROPRIETARY AND CONFIDENTIAL
THIS IS THE SOLE PROPERTY OF BENDPAK INC. ANY
REPRODUCTION OR TRANSMISSION OF THIS DRAWING WITHOUT
THE WRITTEN PERMISSION OF BENDPAK INC. IS
PROHIBITED.

1645 LEMONWOOD DR.
SANTA PAULA, CA 95060

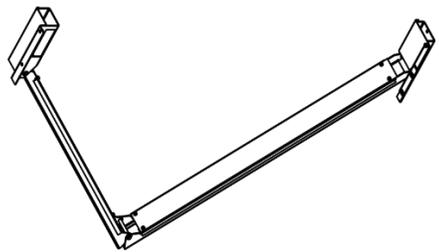
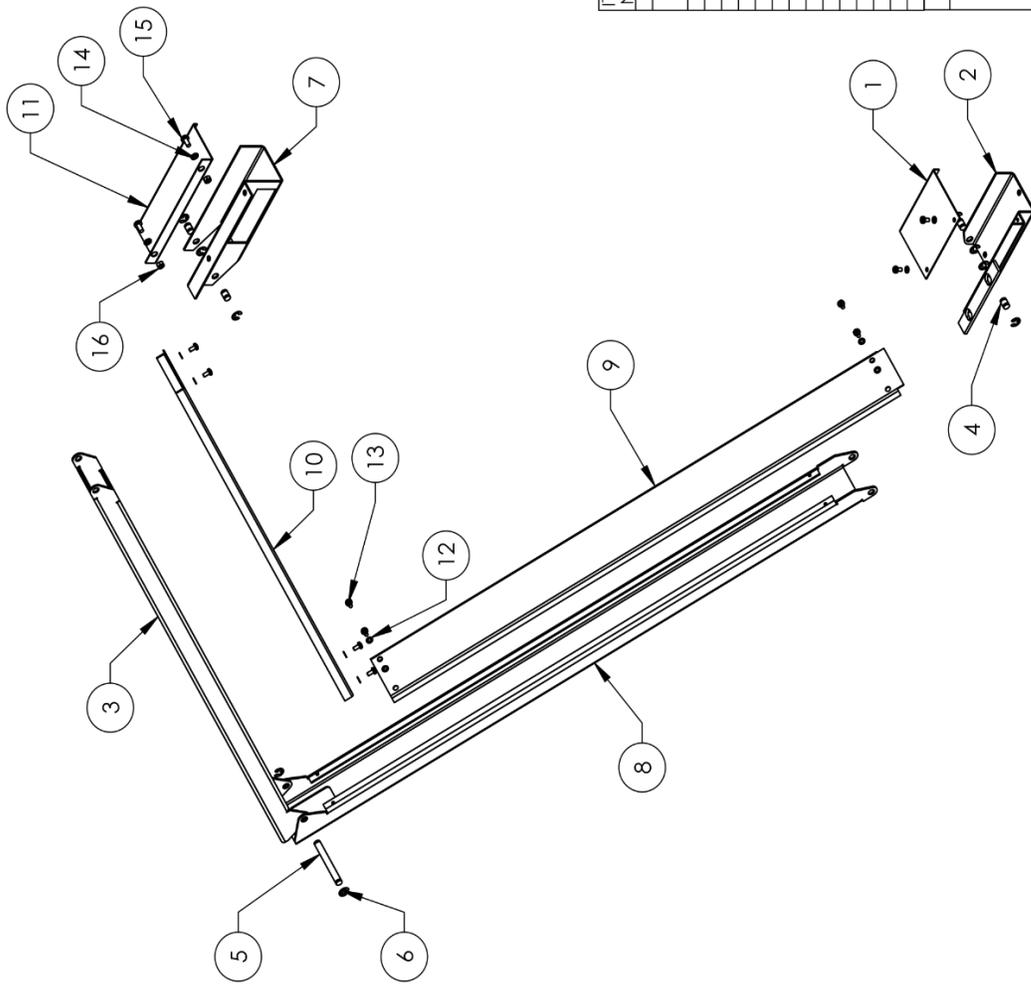
BendPak
HYDRAULIC SCISSOR LIFTS

TITLE:
XR-12000 SERIES PARTS BOX

SIZE DWG. NO. **A** 5250098

REV **E**

NEXT ASSEMBLY	5260101
	5260102



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5701277	XR-12000 SERIES BOTTOM TROUGH BRACKET COVER	1	B
2	5600642	XR-12000 SERIES BASE HOSE TROUGH MOUNT WELDMENT LH	1	C
3	5701280	XR-12000 SERIES TOP TROUGH	1	B
4	5746112	XR-12000 SERIES TROUGH SHORT HINGE PIN	4	B
5	5746165	XR-12000 SERIES TROUGH LONG HINGE PIN	1	B
6	5540128	ERING Ø3/8" OD TRUARC-5133-37	10	---
7	5701274	XR-12000 SERIES RAMP HOSE TROUGH MOUNT LH	1	B
8	5701278	XR-12000 SERIES BOTTOM TROUGH	1	B
9	5701281	XR-12000 SERIES BOTTOM HOSE TROUGH COVER	1	B
10	5701282	XR-12000 SERIES TOP HOSE TROUGH COVER	1	B
11	5701283	XR-12000 SERIES TOP HINGE BRACKET COVER	1	B
12	5545008	WASHER M5 X Ø10 FLAT	10	---
13	5530045	BHPS M5 X 0.8 X 10	10	---
14	5545005	M6 FLAT WASHER	2	---
15	5530023	BHPS M6 X 1 X 13	2	---
16	5535112	NUT M6 X 1.0	2	---

NAME	DATE
DRAWN AC	03/31/2010
CHECKED CA	02/25/2016

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

DIMENSIONS ARE IN MM

1645 LEMONWOOD DR.
BendPak, SANTA PAULA, CA 93060

TITLE: XR-12000 SERIES LEFT SIDE HOSE TROUGH ASSEMBLY

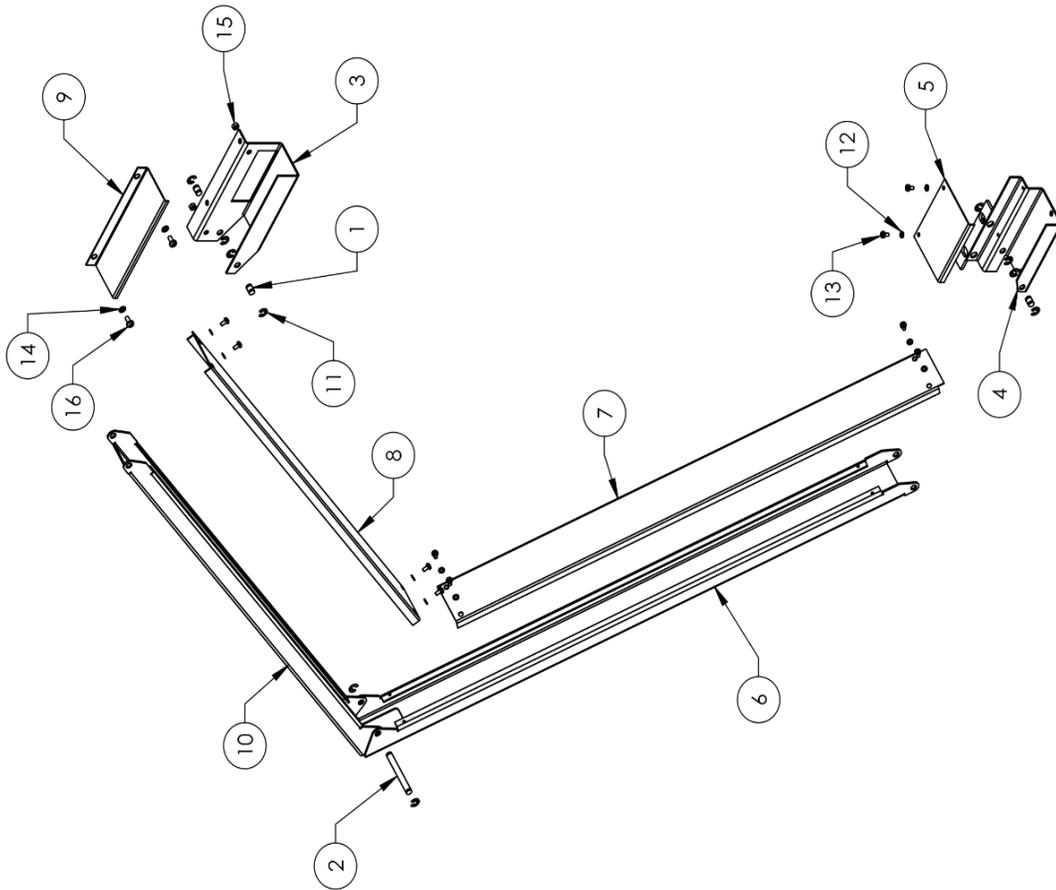
SIZE DWG. NO. A 5215365

REV E

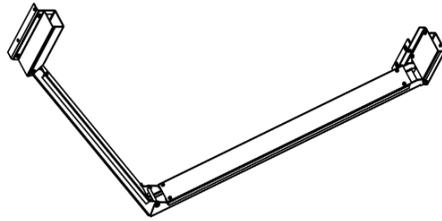
SCALE: 1:10

SHEET 1 OF 1

PROPRIETARY AND CONFIDENTIAL
THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION OR TRANSMISSION WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.

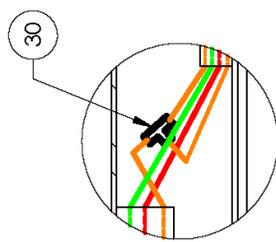
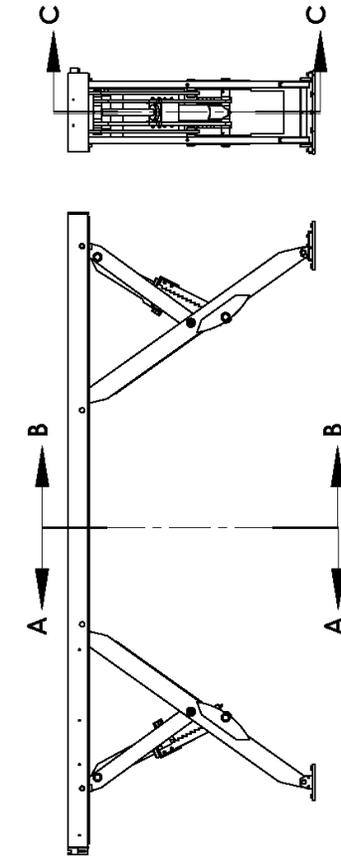


ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE

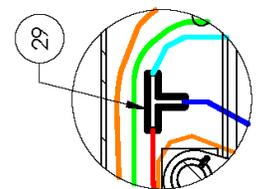


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5746119	XR-12000 SERIES TROUGH SHORT HINGE PIN	4	B
2	5746165	XR-12000 SERIES TROUGH LONG HINGE PIN	1	B
3	5701276	XR-12000 SERIES RAMP HOSE TROUGH MOUNT RH	1	B
4	5600643	XR-12000 SERIES BASE HOSE TROUGH MOUNT WELDMENT RH	1	C
5	5701277	XR-12000 SERIES BOTTOM TROUGH BRACKET COVER	1	B
6	5701278	XR-12000 SERIES BOTTOM TROUGH	1	B
7	5701279	XR-12000 SERIES TOP HOSE TROUGH COVER	1	B
8	5701280	XR-12000 SERIES TOP HOSE TROUGH COVER	1	B
9	5701281	XR-12000 SERIES TOP HOSE TROUGH COVER	1	B
10	5701282	XR-12000 SERIES TOP HOSE TROUGH COVER	1	B
11	5540128	E RING Ø378" OD TRUARC 5133-37	10	---
12	5545008	WASHER M5 X Ø10 FLAT	10	---
13	5530045	BHPS M5 X 0.8 X 10	10	---
14	5545005	M6 FLAT WASHER	2	---
15	5535112	NUT M6 X 1.0	2	---
16	5530023	BHPS M6 X 1 X 13	2	---

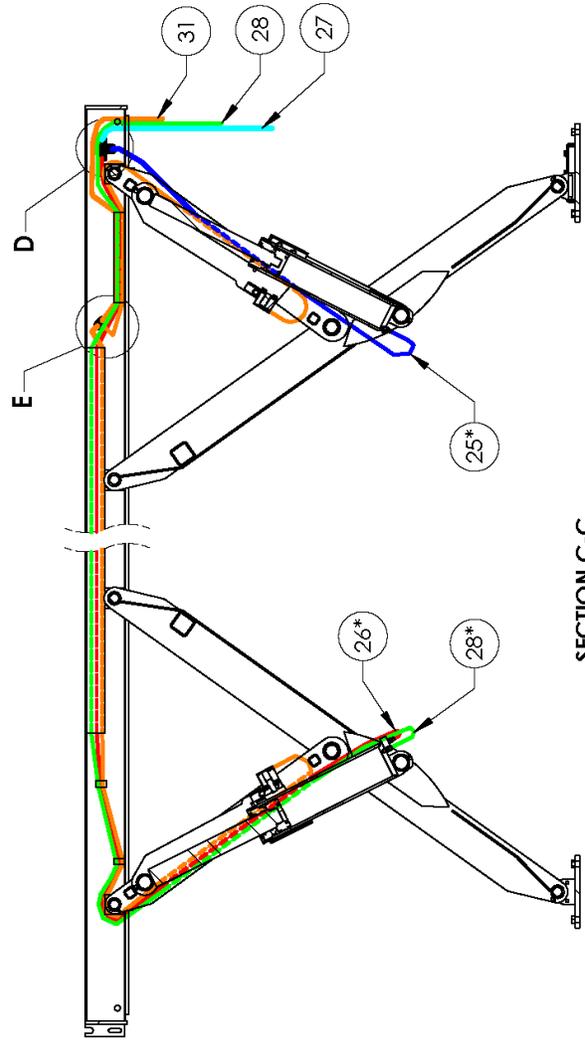
DRAWN AC 03/30/2010		NAME DATE	
CHECKED CA 02/25/2016		1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
THIRD ANGLE PROJECTION			
		TITLE: XR-12000 SERIES RIGHT SIDE HOSE TROUGH ASSEMBLY SIZE DWG. NO. 5215364 REV E	
		DIMENSIONS ARE IN MM PROPRIETARY AND CONFIDENTIAL THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.	
DO NOT SCALE DRAWING		SCALE: 1:10 SHEET 1 OF 1	



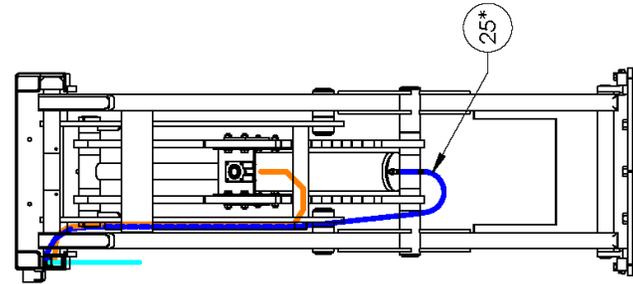
DETAIL E
SCALE 1 : 8



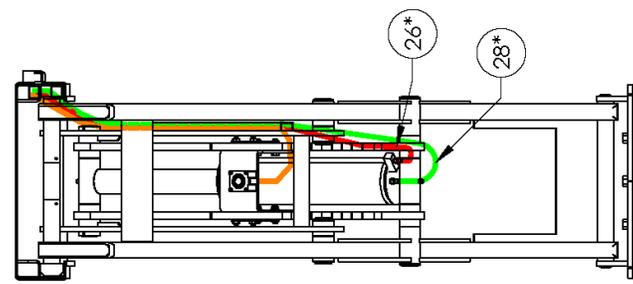
DETAIL D
SCALE 1 : 8



SECTION C-C
SCALE 1 : 25



SECTION B-B
SCALE 1 : 20



SECTION A-A
SCALE 1 : 20

BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: XR-12000L COMPLETE LEFT RAMP ASSEMBLY
VER C

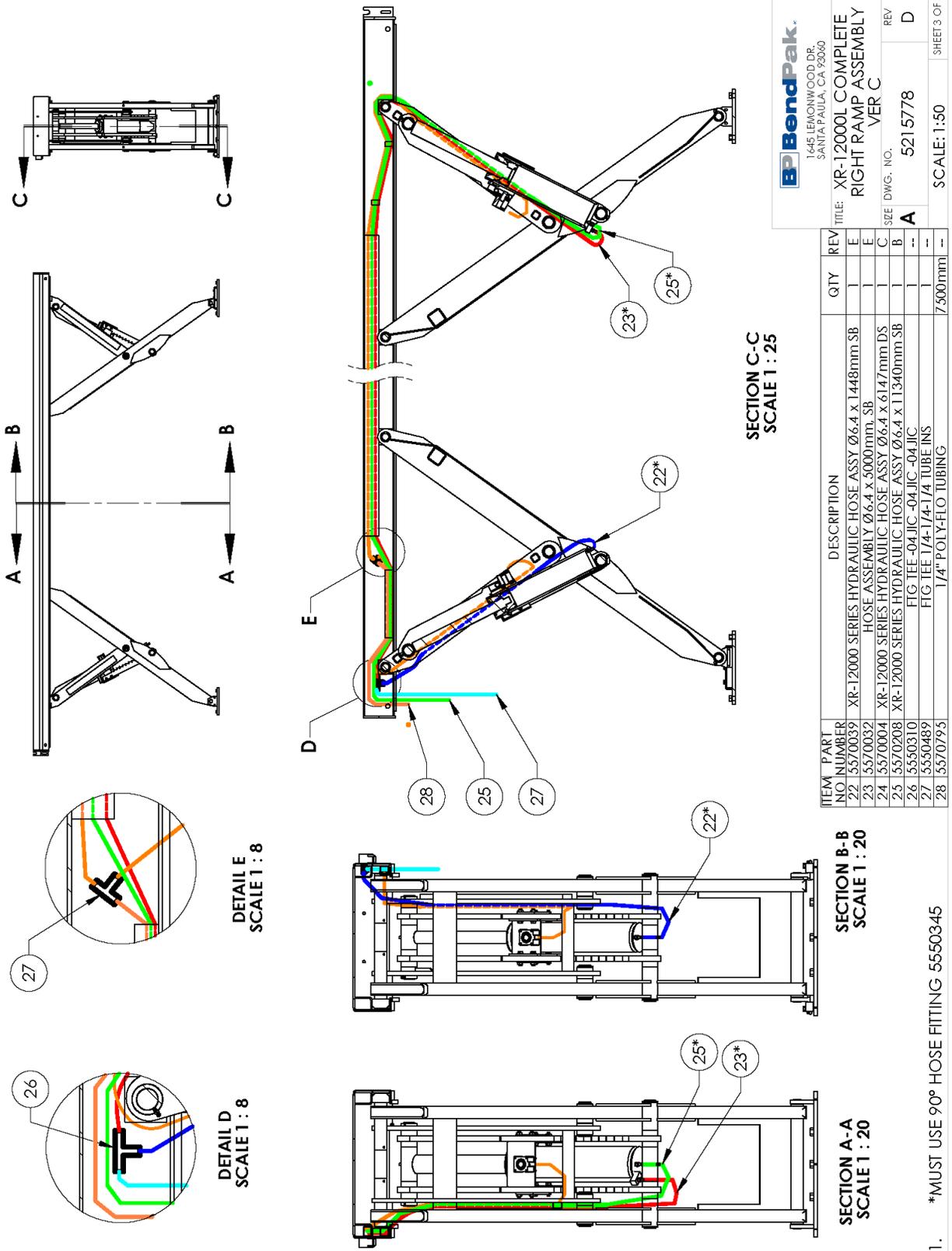
REV D

REV A
SIZE DWG. NO. 5215779

SCALE: 1:50 SHEET 3 OF 3

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
25	5570039	XR-12000.SERIES HYDRAULIC HOSE ASSY Ø6.4 x 1448mm SB	1	E
26	5570905	XR-12000.SERIES HOSE ASSEMBLY Ø6.4 x 6045mm SB	1	D
27	5570004	XR-12000.SERIES HYDRAULIC HOSE ASSY Ø6.4 x 6147mm DS	1	C
28	5570205	XR-12000.SERIES HYDRAULIC HOSE ASSY Ø6.4 x 12028mm SB	1	B
29	5550310	FIG TEE -04 JIC -04 JIC	1	--
30	5550489	FIG TEE 1/4-1/4-1/4 TUBE INS	1	--
31	5570795	1/4" POLY-FLO TUBING	7500mm	--

1. *MUST USE 90° HOSE FITTING 5550345



BendPak
 1645 LEMONWOOD DR.
 SANTA PAULA, CA 95660

TITLE: XR-12000L COMPLETE
 RIGHT RAMP ASSEMBLY
 VER C

REV: D
 SEE DWG. NO. A 5215778

SCALE: 1:50 SHEET 3 OF 3

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
22	5570039	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 1448mm SB	1	E
23	5570032	HOSE ASSEMBLY Ø6.4 x 5000mm SB	1	E
24	5570004	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 6147mm DS	1	C
25	5570208	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 11340mm SB	1	B
26	5550310	FIG TEE -04 JIC -04 JIC	1	--
27	5550489	FIG TEE 1/4-1/4-1/4 TUBE INS	1	--
28	5570795	1/4" POLY-FLO TUBING	7500mm	--

SECTION B-B
 SCALE 1 : 20

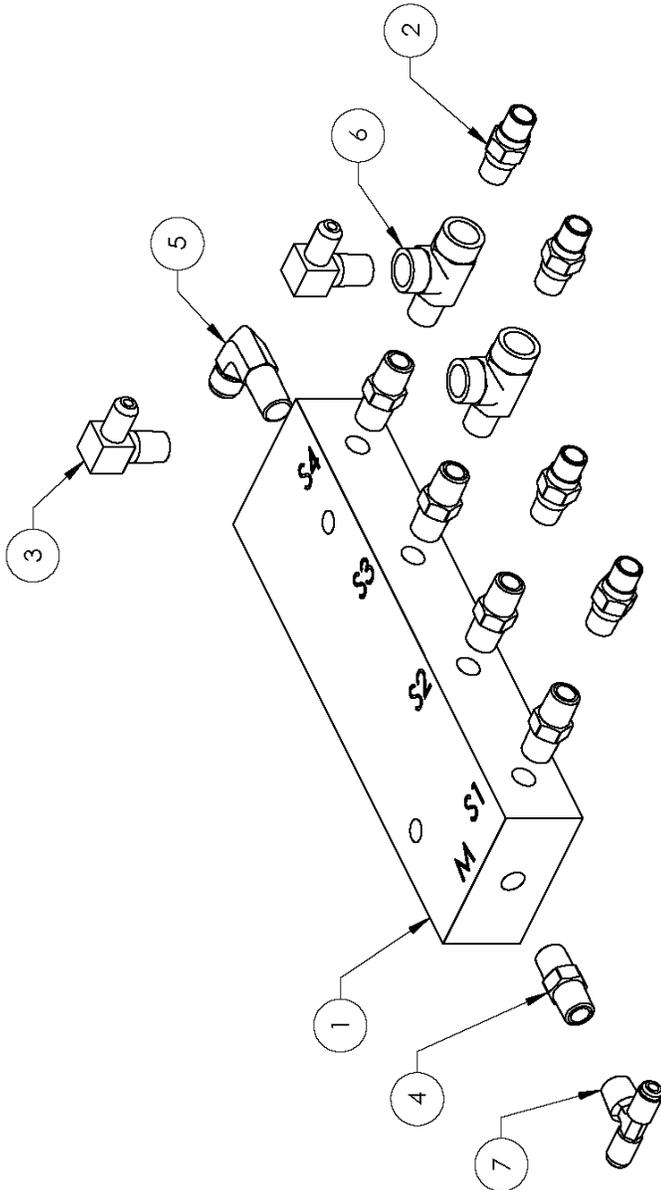
SECTION A-A
 SCALE 1 : 20

SECTION C-C
 SCALE 1 : 25

DETAIL E
 SCALE 1 : 8

DETAIL D
 SCALE 1 : 8

1. *MUST USE 90° HOSE FITTING 5550345



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5711231	XR-12000L VALVE BLOCK	1	B
2	5550147	FIG NPL-04 JIC x-04 NPT	4	--
3	5550086	FIG ELB-04 NPT x-04 JIC	2	--
4	5550298	FIG NPL-04 NPT x-04 NPT	5	--
5	5550299	FIG ELB-04 NPT L x-06 JIC	1	--
6	5550485	FIG TEE-04 NPT L x-04 NPTF x-04 NPTF	2	--
7	5550181	FIG TEE-04 JIC x-04 JIC x-04 NPT	1	--

DO NOT SCALE DRAWING

DRAWN	SH	DATE
		09/06/2013
CHECKED		--

NAME: **BendPak**
 1645 LEMONWOOD DR.
 SANTA PAULA, CA 93060

TITLE: XR-12000 VALVE BLOCK ASSEMBLY

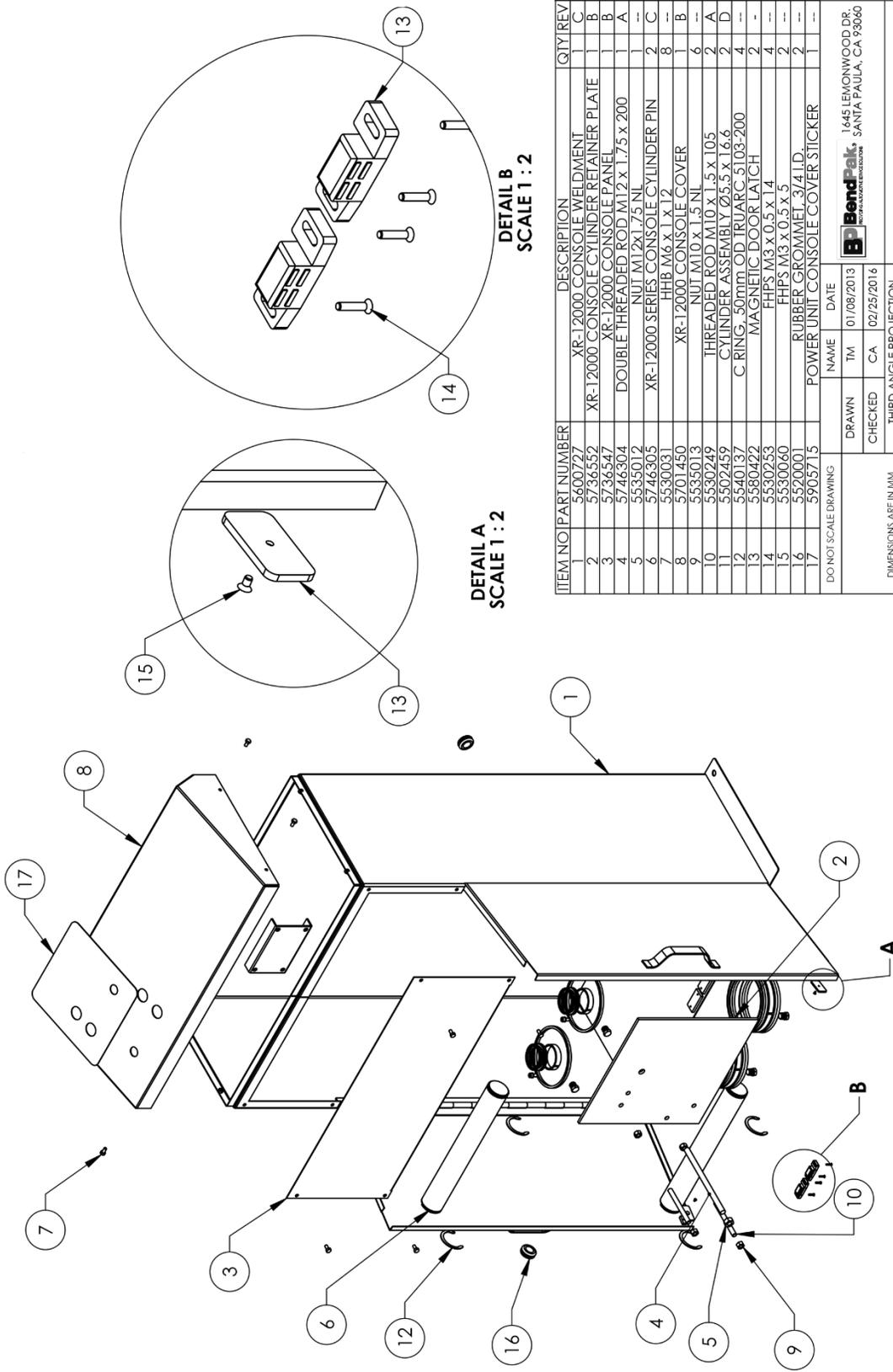
THIRD ANGLE PROJECTION

SIZE DWG. NO. A 5215628 REV C

SCALE: 1:3 SHEET 1 OF 1

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.

DIMENSIONS ARE IN MM



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600727	XR-12000 CONSOLE WELDMENT	1	C
2	5736552	XR-12000 CONSOLE CYLINDER RETAINER PLATE	1	B
3	5736547	XR-12000 CONSOLE PANEL	1	B
4	5746304	DOUBLE THREADED ROD M12 X 1.75 X 200	1	A
5	5535012	NUT M12X1.75 N1	1	A
6	5746305	XR-12000 SERIES CONSOLE CYLINDER PIN	2	C
7	5530031	HHB M6 X 1 X 12	8	B
8	5701450	XR-12000 CONSOLE COVER	1	B
9	5535013	NUT M10 X 1.5 N1	6	A
10	5530249	THREADED ROD M10 X 1.5 X 105	2	A
11	5502459	CYLINDER ASSEMBLY Ø5.5 X 1.6	2	D
12	5540137	C RING - 50mm OD TRUARC 5103-200	4	A
13	5580422	MAGNETIC DOOR LATCH	2	A
14	5530253	FHPS M3 X 0.5 X 14	4	A
15	5530060	FHPS M3 X 0.5 X 5	2	A
16	5520001	RUBBER GROMMET, 3/4 I.D.	2	A
17	5905715	POWER UNIT CONSOLE COVER STICKER	1	A

DO NOT SCALE DRAWING

DRAWN	TM	01/08/2013
CHECKED	CA	02/25/2016

NAME: DATE:

THIRD ANGLE PROJECTION

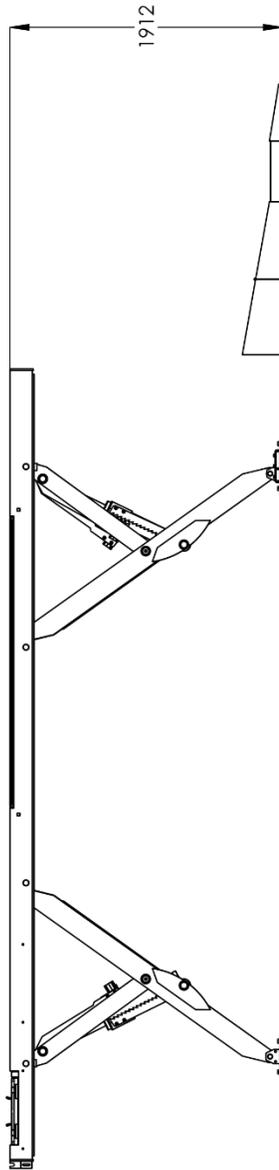
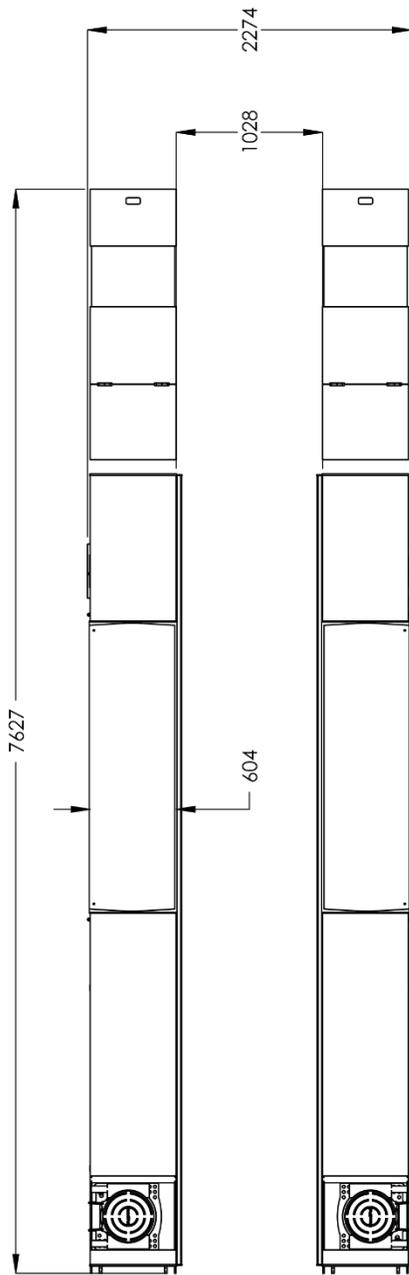
PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. REPRODUCTION IN PART OR AS A WHOLE WITHOUT PERMISSION OF BENDPAK INC. IS PROHIBITED.

1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

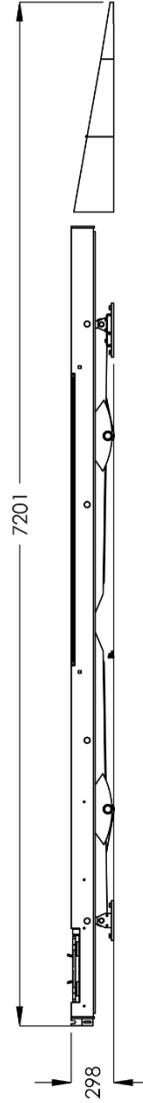
TITLE: XR-12000 CONSOLE ASSEMBLY

SIZE DWG. NO. A 5215579

REV J



RAISED



COLLAPSED

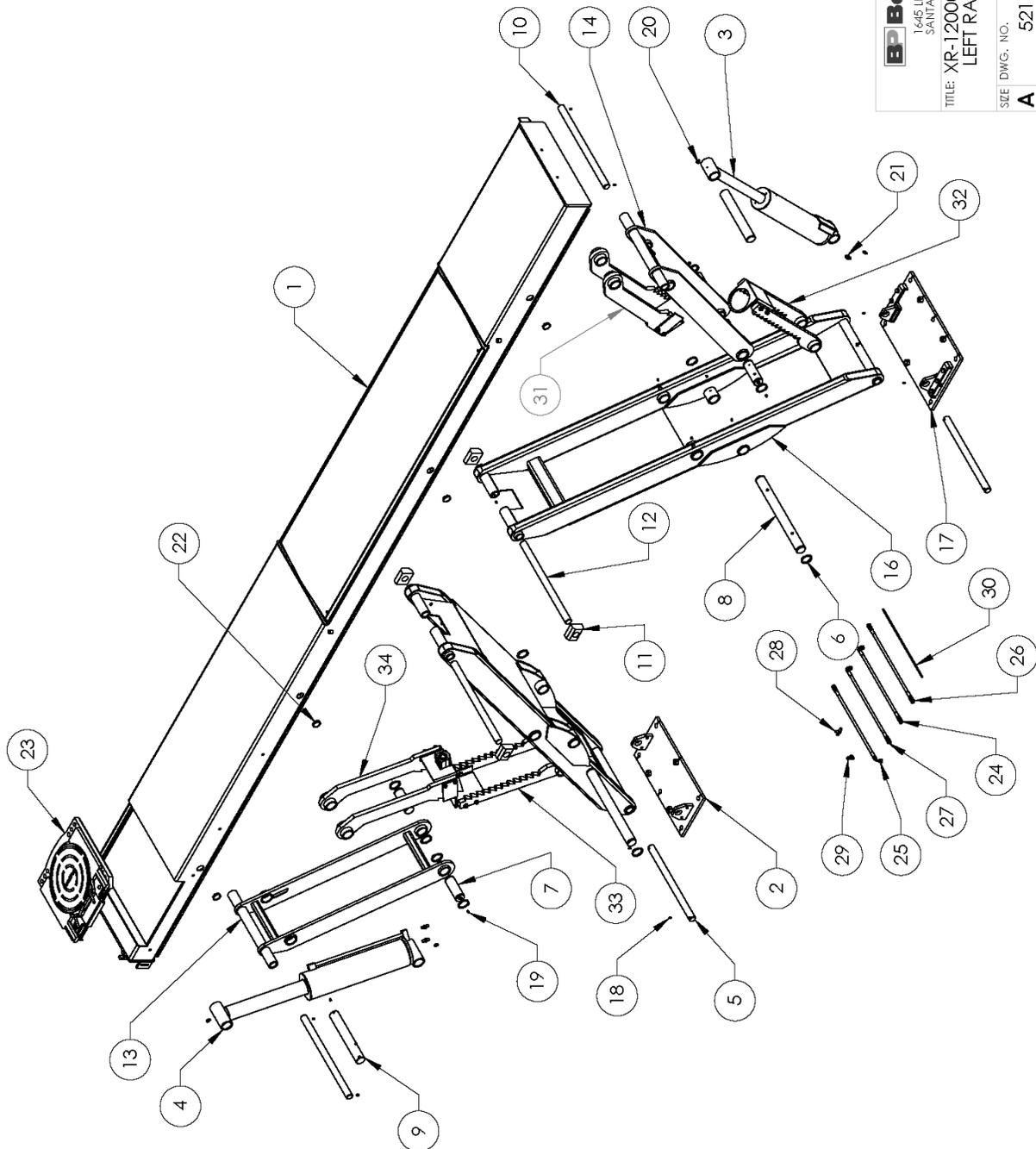
BPI BendPak 1445 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE:	XR-12000AL PRODUCTION LIFT VER C
SIZE DWG. NO.	REV
A	D
SCALE: 1:40	
SHEET 2 OF 2	

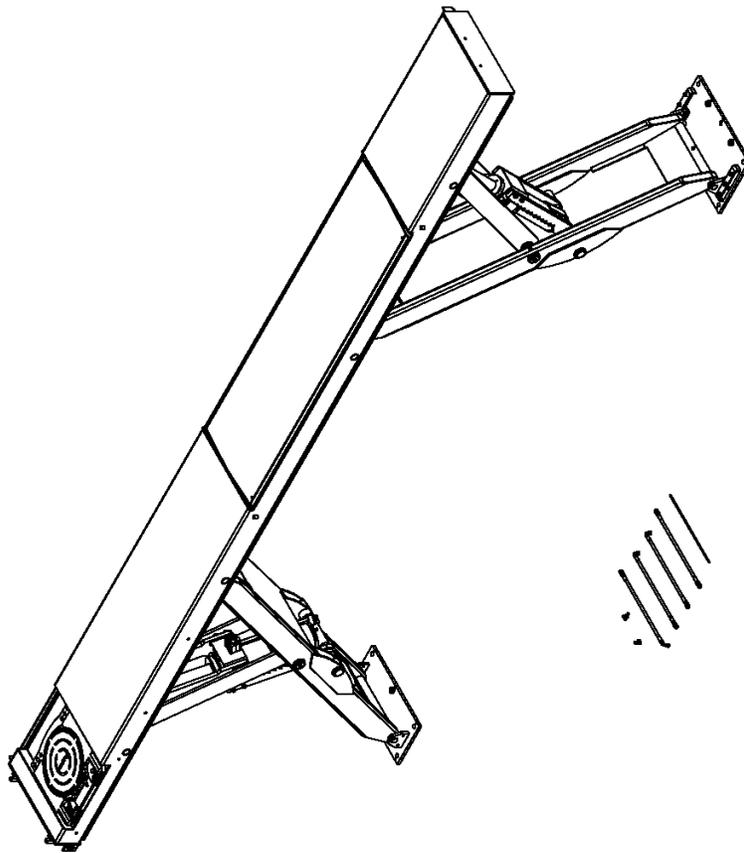
BP BendPak.
 1645 LEMONWOOD DR.
 SANTA PAULA, CA 95060

TITLE: XR-12000AL COMPLETE
 LEFT RAMP ASSEMBLY
 VER C

SIZE	DWG. NO.	REV	
A	5215777	E	

SCALE: 1:28 SHEET 2 OF 3

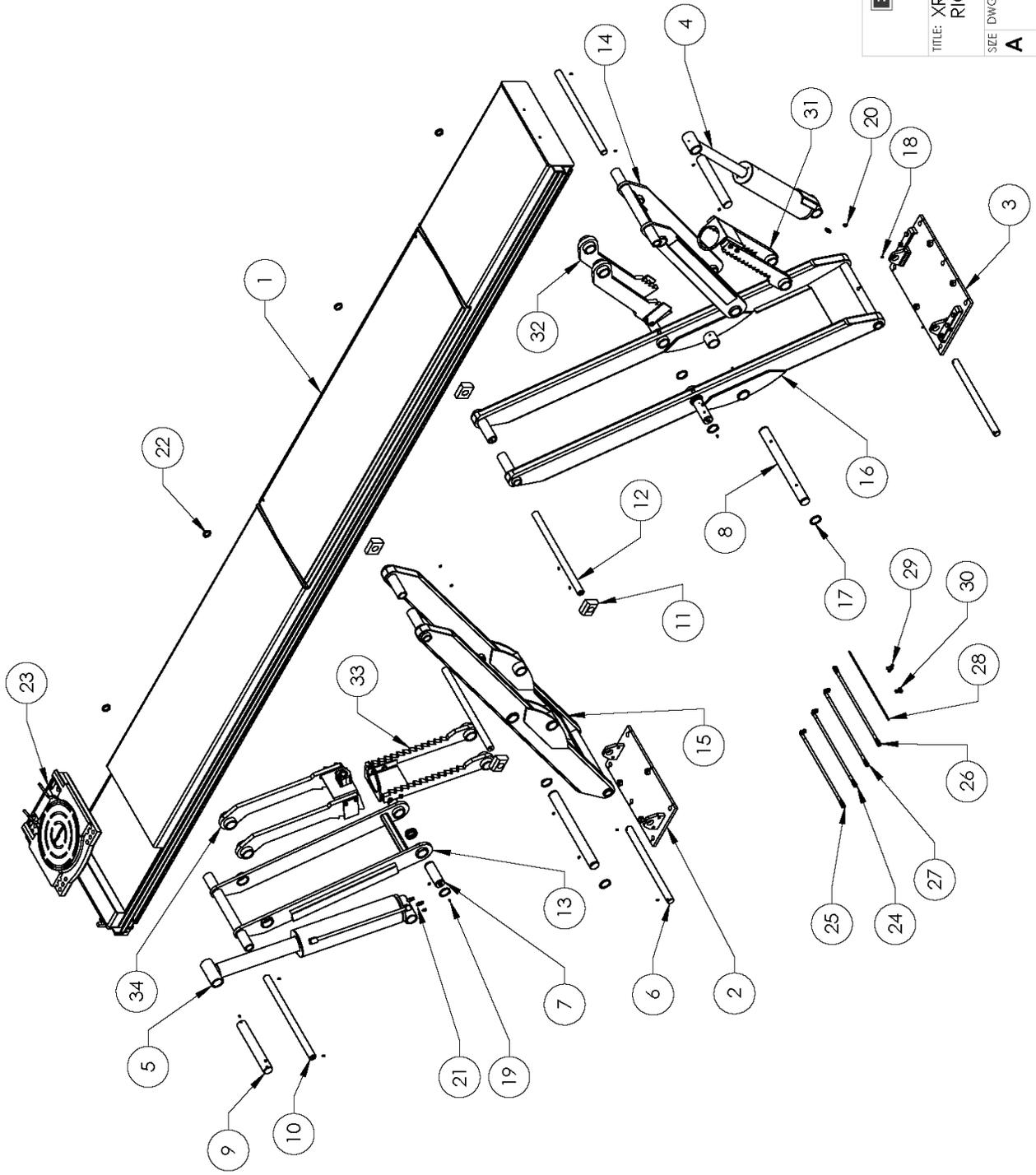


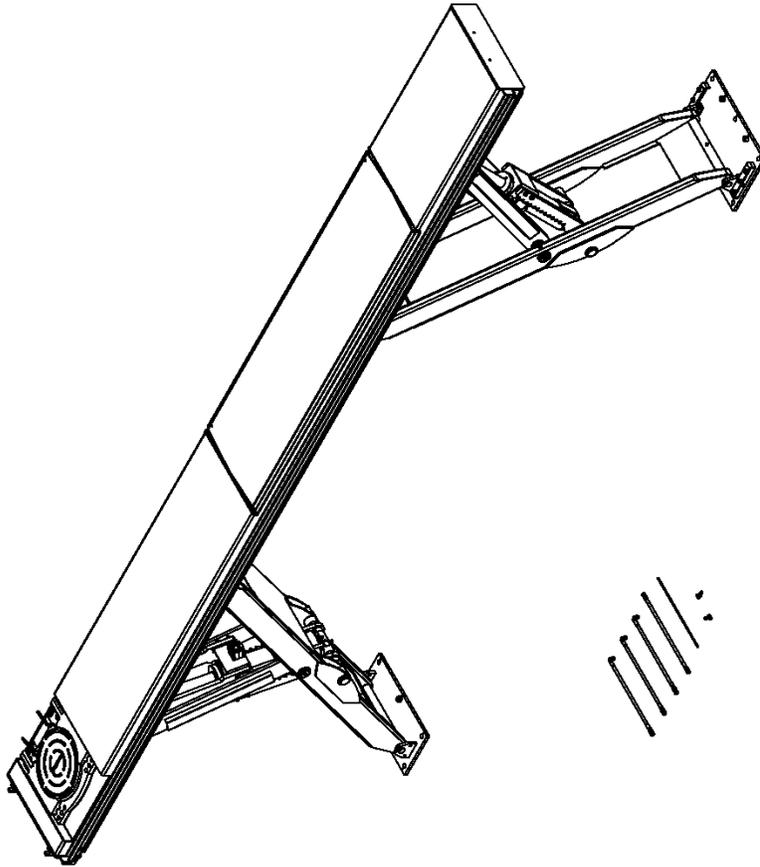


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5215775	XR-12000AL LEFT RAMP ASSEMBLY VER C	1	B
2	5600428	XR-12000 SERIES FIXED BASE PLATE WELDMENT	1	D
3	5502322	OFFSET CYLINDER ASSEMBLY Ø4.0 x 1.7.3	1	L
4	5502026	OFFSET CYLINDER ASSEMBLY Ø5.0 x 1.7.3 LH	1	C
5	5746164	XR-12000 SERIES FRONT LONG WYE BASE PIN	2	B
6	5540127	R RING Ø72.0" OD TRUARC-5160-200	12	--
7	5746163	XR-12000 SERIES WYE HINGE PIN	4	B
8	5746162	XR-12000 SERIES LONG WYE CYLINDER PIN	2	B
9	5746161	XR-12000 SERIES SHORT WYE CYLINDER PIN	2	D
10	5746146	XR-12000 SERIES RAMP SHORT WYE HINGE PIN	2	B
11	5716025	XR-12000 SERIES RAMP SLIDE BLOCK	4	C
12	5746144	XR-12000 SERIES RAMP SLIDE BLOCK PIN	2	B
13	5215773	XR-12000 SHORT WYE ARM ASSEMBLY FRONT LEFT, 5.0" CYLINDER	1	C
14	5215229	XR-12000 SHORT WYE ARM ASSEMBLY REAR LEFT, 4.0" CYLINDER	1	H
15	5215366	XR-12000 LONG WYE ARM ASSEMBLY 5.0" CYLINDER	1	F
16	5215823	XR-12000 LONG WYE ARM ASSEMBLY 4.0" CYLINDER	1	B
17	5215371	XR-12000 SERIES SLIDING BASE PLATE ASSEMBLY	1	F
18	5530108	SSS M8 x 1.25 x 1.2	24	--
19	5550025	FIG GRS M6 x 1.0	4	--
20	5550028	FIG ELB GRS M6 x 1	4	--
21	5550147	FIG NPL -04 JIC x -04 NPT	3	--
22	5580105	STEEL HOLE PLUG 1 1/2"	4	--
23	5700379	ALUMINUM DELUXE ALIGNMENT TURNPLATE ASSEMBLY, SINGLE	1	A
24	5570039	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 1.448mm SB	1	E
25	5570905	XR-12000 SERIES HOSE ASSEMBLY Ø6.4 x 604.5mm SB	1	D
26	5570004	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 61.47mm DS	1	C
27	5570205	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 12028mm SB	1	B
28	5550310	FIG TEE -04 JIC -04 JIC	1	--
29	5550489	FIG TEE 1/4-1/4-1/4 TUBE INS	1	--
30	5570795	1/4" POLY-FLO TUBING	7500mm	--
31	5215768	XR-12000 LOCK LATCH ASSEMBLY REAR, 4.0" CYLINDER	1	D
32	5215766	XR-12000 CYLINDER LOCK ASSEMBLY REAR, 4.0" CYLINDER	1	C
33	5215767	XR-12000 CYLINDER LOCK ASSEMBLY FRONT, 5.0" CYLINDER	1	C
34	5215765	XR-12000 LOCK LATCH ASSEMBLY FRONT, 5.0" CYLINDER	1	D

DO NOT SCALE DRAWING		NAME	DATE
DRAWN	TS	04/26/2018	
CHECKED			
THIRD ANGLE PROJECTION			
DIMENSIONS ARE IN MM 			
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.			
BPI BendPak 1645 LEMONWOOD DR. SANTA PAULA, CA 93060		TITLE: XR-12000AL COMPLETE LEFT RAMP ASSEMBLY VER C	
SIZE DWG. NO.	REV	SCALE: 1:35	
A	5215777	SHEET 1 OF 3	

BendPak 1645 LEMWOOD DR. SANTA PAULA, CA 93060	
TITLE: XR-12000AL COMPLETE RIGHT RAMP ASSEMBLY VER C	
SIZE DWG. NO.	REV
A 5215776	E
SCALE: 1:28	SHEET 2 OF 3





ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5215774	XR-12000AL RIGHT RAMP ASSEMBLY VER C	1	B
2	5600428	XR-12000 SERIES FIXED BASE PLATE WELDMENT	1	D
3	5215371	XR-12000 SERIES SLIDING BASE PLATE ASSEMBLY	1	F
4	5502322	OFFSET CYLINDER ASSEMBLY Ø4.0 x 17.3	1	L
5	5502027	OFFSET CYLINDER ASSEMBLY Ø5.0 x 17.3 RH VER B	1	C
6	5746164	XR-12000 SERIES FRONT LONG WYE BASE PIN	2	B
7	5746163	XR-12000 SERIES WYE HINGE PIN	4	B
8	5746162	XR-12000 SERIES LONG WYE CYLINDER PIN	2	B
9	5746161	XR-12000 SERIES SHORT WYE CYLINDER PIN	2	D
10	5746146	XR-12000 SERIES RAMP SHORT WYE HINGE PIN	2	B
11	5716025	XR-12000 SERIES RAMP SLIDE BLOCK	4	C
12	5746144	XR-12000 SERIES RAMP SLIDE BLOCK PIN	2	B
13	5215584	XR-12000 SHORT WYE ARM ASSEMBLY FRONT RIGHT, 5.0" CYLINDER	1	E
14	5215359	XR-12000 SHORT WYE ARM ASSEMBLY REAR RIGHT, 4.0" CYLINDER	1	K
15	5215366	XR-12000 LONG WYE ARM ASSEMBLY, 5.0" CYLINDER	1	F
16	5215823	XR-12000 LONG WYE ARM ASSEMBLY, 4.0" CYLINDER	1	B
17	5540127	R RING Ø22.0" OD TRUARC 51.60-200	12	--
18	5530108	SSS M8 x 1.25 x 12	24	--
19	5550025	FIG GRS M6 x 1.0	4	--
20	5550028	FIG ELB GRS M6 x 1	4	--
21	5550147	FIG NPL -04 JIC x -04 NPT	3	--
22	5580105	STEEL HOLE PLUG 1 1/2"	4	A
23	5700379	ALUMINUM DELUXE ALIGNMENT TURNPLATE ASSEMBLY, SINGLE	1	A
24	5570039	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 1.448mm 3B	1	E
25	5570032	HOSE ASSEMBLY Ø6.4 x 5000mm, SB	1	E
26	5570004	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 6147mm DS	1	C
27	5570208	XR-12000 SERIES HYDRAULIC HOSE ASSY Ø6.4 x 11340mm SB	1	B
28	5570795	1/4" POLY-FLO TUBING	7500mm	--
29	5550310	FIG TEE -04 JIC -04 JIC	1	--
30	5550489	FIG TEE 1/4-1/4-1/4 TUBE INS	1	--
31	5215766	XR-12000 CYLINDER LOCK ASSEMBLY REAR, 4.0" CYLINDER	1	C
32	5215768	XR-12000 LOCK LATCH ASSEMBLY REAR, 4.0" CYLINDER	1	D
33	5215767	XR-12000 CYLINDER LOCK ASSEMBLY FRONT, 5.0" CYLINDER	1	C
34	5215765	XR-12000 LOCK LATCH ASSEMBLY FRONT, 5.0" CYLINDER	1	D

DO NOT SCALE DRAWING

BP BendPak.
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

DATE: 01/15/2103
DRAWN: TM
CHECKED: --

TITLE: XR-12000AL COMPLETE RIGHT RAMP ASSEMBLY VER C

THIRD ANGLE PROJECTION

SIZE: DWG. NO. 5215776
REV: F

SCALE: 1:35

SHEET 1 OF 3

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS TO BE USED ONLY IN CONNECTION WITH THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.



1645 Lemonwood Drive
Santa Paula, CA 93060 USA