

# Mid-Rise Scissor Lift

## Installation and Operation Manual

Manual P/N 5900030 — Manual Revision D — April 2021

**Models:** • MDS-6EXT • MDS-6EXTF • MDS-6LP • MDS-6LPF



*Model MDS-6EXT 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 and assume full responsibility of product use.***

**Manual.** MDS-6 Series Mid-Rise Scissor Lifts, *Installation and Operation Manual*, Manual Part Number 5900030, Manual Revision D, released April 2021.

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**Limitations.** Every effort has been made to ensure complete and accurate instructions are included in this manual. However, product updates, revisions, and/or changes may have occurred since this manual was published. BendPak reserves the right to change any information in this manual without incurring any obligation for equipment previously or subsequently sold. BendPak is not responsible for typographical errors in this manual. Feel free to contact us at any time to get the latest information about any product: [bendpak.com](http://bendpak.com).

**Warranty.** The BendPak warranty is more than a commitment to you: it is also a commitment to the value of your new product. Contact your nearest BendPak dealer or visit [www.bendpak.com/support/warranty](http://www.bendpak.com/support/warranty) for full warranty details. Go to [bendpak.com/support/register-your-product/](http://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: \_\_\_\_\_

|  |                      |
|--|----------------------|
| <b>BP BendPak</b> Santa Paula, CA USA<br>www.bendpak.com |                      |
| MODEL NUMBER   |                      |
| DESCRIPTION  |                      |
| LIFT CAPACITY  | DATE OF MFG.         |
| <b>VOLTAGE</b>   | <b>SERIAL NUMBER</b> |
| <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        |                      |
|  | <b>UPC</b>           |
| <b>DANGER!</b><br>Disconnect Power Before Servicing      |                      |
| WARRANTY VOID IF DATA PLATE IS REMOVED PN 5905951        |                      |
| <b>EAC</b>   |                      |

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## Introduction

This manual describes the following Mid-Rise Scissor Lift models:

- **MDS-6EXT:** Mid-Rise Scissor Lift with extended length Platforms that can raise up to 6,000 lbs. (2,722 kg). ALI certified.
- **MDS-6EXTF:** The flush-mount version of the MDS-6EXT. ALI certified.
- **MDS-6LP:** Mid-Rise Scissor Lift with normal length Platforms but a higher rise that can raise up to 6,000 lbs (2,722 kg). ALI certified.
- **MDS-6LPF:** The flush-mount version of the MDS-6LP. ALI certified.

More information about the full line of BendPak products is available at [bendpak.com](http://bendpak.com).

This manual is mandatory reading for users of the MDS-6EXT/F and MDS-6LP/F models, including anyone who sets up, operates, maintains, or repairs them.

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

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

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

Technical support and service is available from your dealer, on the Web at [bendpak.com/support](http://bendpak.com/support), by email at [support@bendpak.com](mailto:support@bendpak.com), or by phone at **(800) 253-2363**.

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.

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# 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 products are mid-rise Scissor Lifts. Use them only for their intended purpose.
- The products 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.
- Make sure all operators read and understand this *Installation and Operation Manual*. Keep the manual near the device at all times.
- Make a visual inspection of the product before using it. Check for damage or missing parts. Do not use the product if you find any issues. Instead, take it out of service, then contact your dealer, email [support@bendpak.com](mailto:support@bendpak.com), visit [bendpak.com/support](http://bendpak.com/support), or call **(800) 253-2363**.
- Make a **thorough** inspection of the product at least once a year. Replace any damaged or severely worn parts or warning labels.

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## Symbols

Following are the symbols used in this manual:



**DANGER** Calls attention to an immediate hazard that **will** result in injury or death.



**WARNING** Calls attention to a hazard or unsafe practice that **could** result in injury or death.



**CAUTION** Calls attention to a hazard or unsafe practice that could result in minor personal injury, product, or property damage.



**NOTICE** Calls attention to a situation that, if not avoided, could result in product or property damage.



**Tip** Calls attention to information that can help you use your product better.

## Liability Information

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

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

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# Frequently Asked Questions

**Question:** How much weight can MDS-6 Series Lifts raise?

**Answer:** They can raise Vehicles up to 6,000 pounds (2,722 kg).

**Q:** What is the difference between the MDS-6EXT and MDS-6LP Lifts?

**A:** The MDS-6EXT/F has **extended-length Platforms**, so it can raise Vehicles with longer wheelbases. The MDS-6LP/F can **raise Vehicles higher**.

**Q:** How high does a “mid-rise” Scissor Lift raise a Vehicle?

**A:** There are differences between the four models, but they all raise in the neighborhood of three feet, plus a little extra height from the Lift Blocks.

**Q:** What does “flush mount” mean?

**A:** It means the Frames of the MDS-6EXT**F** and MDS-LP**F** are installed below the surface of the Concrete, in a Concrete Cutout, so Vehicles drive straight onto the Platforms without having to go up a Ramp (the tops of the Platforms are “flush” with the floor).

**Q:** Can the Lifts covered in this manual be installed outdoors?

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

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

**A:** Yes. The Hydraulic Hoses and the Covers that come with the Lifts are long enough to support the Console being up to 40 inches away on either side. Make sure to position the Console next to the Cylinder side of the Lift near the Side Holes in the Bases; the Air Line, Return Line, and Hydraulic Hoses are routed through them.

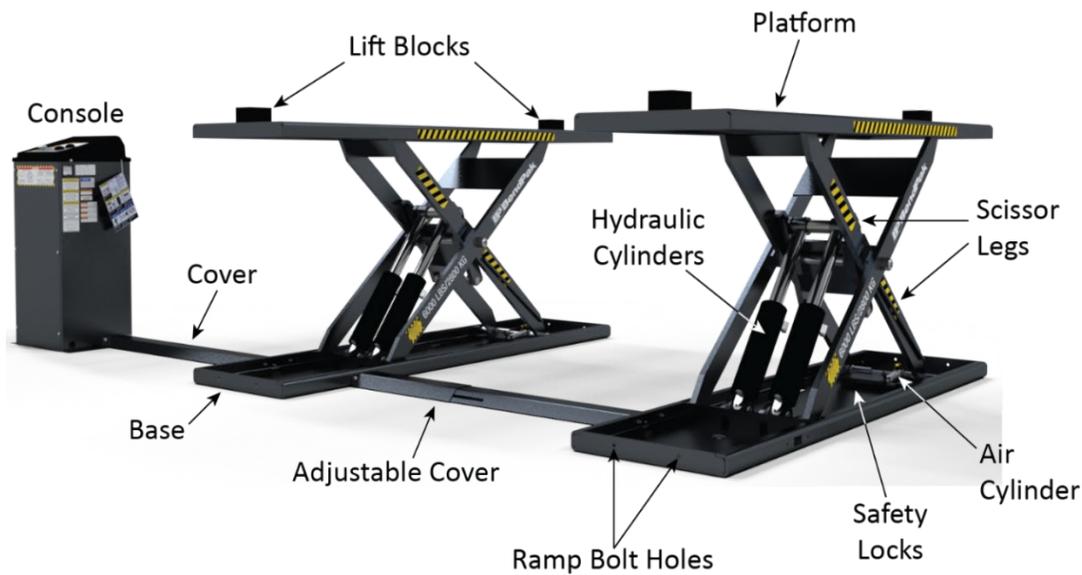
**Q:** What does a Safety Lock do?

**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.**

**Q:** How many Safety Locks do the Lifts have?

**A:** Three.

# Components



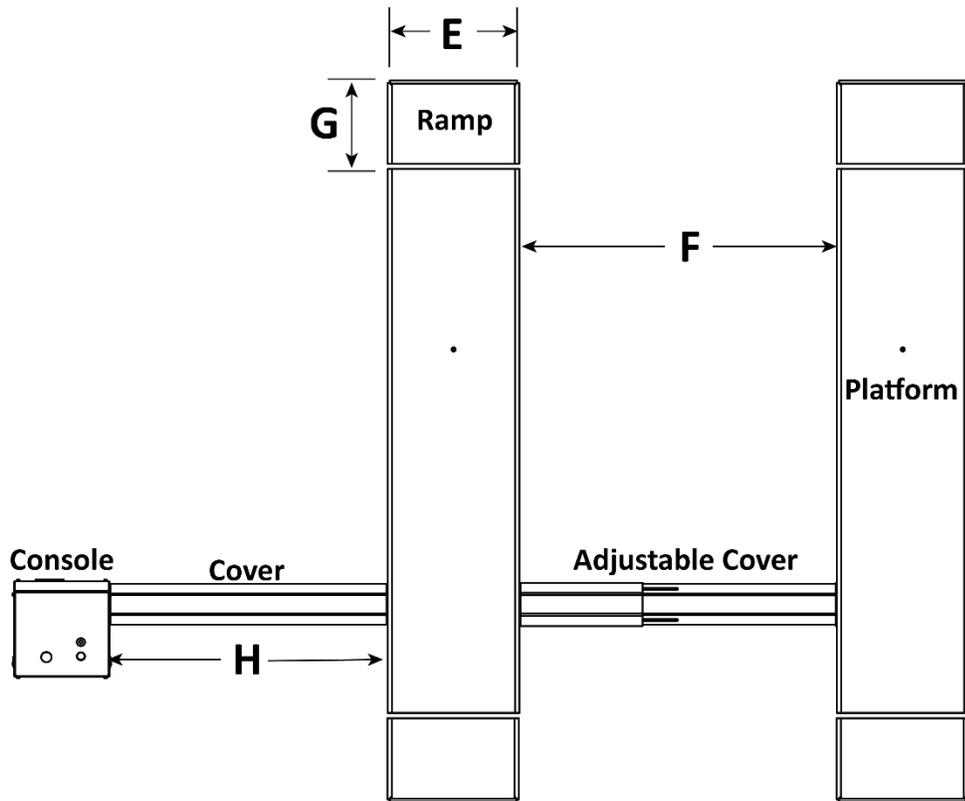
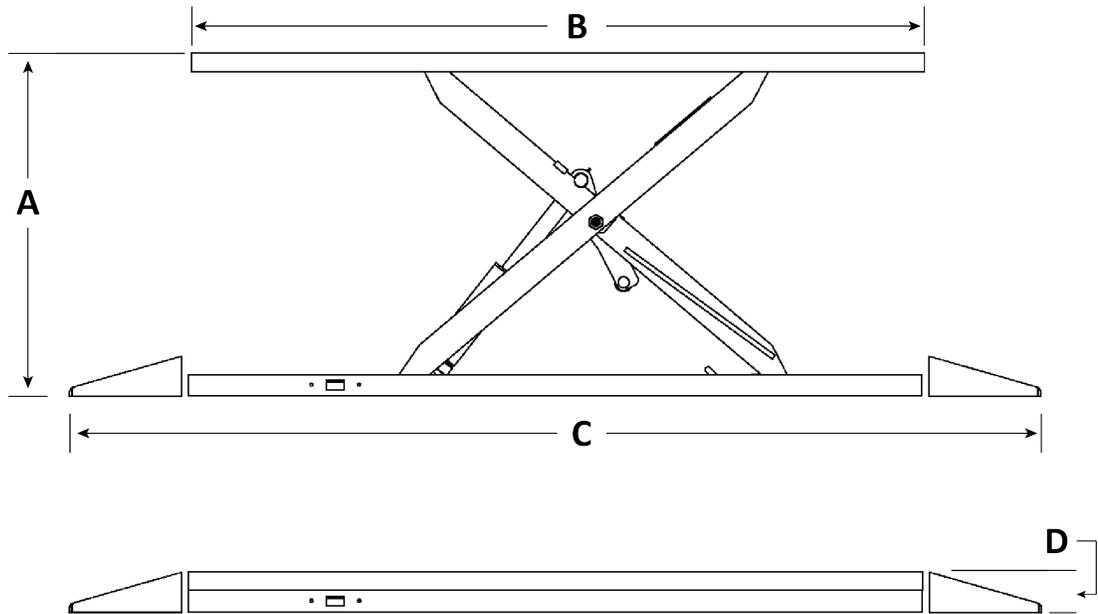
*MDS-6EXT shown without Ramps. Power Unit and Flow Divider are inside the Console. Air and Hydraulic Hoses are routed under the two Covers.*

Lift components include:

- **Console.** Hosts the Lift Controls (on top) and the Power Unit and Flow Divider (inside). The Air and Hydraulic Hoses connect to the Power Unit inside the Console.
- **Power Unit.** Provides Hydraulic Fluid and pressure to the Hydraulic Cylinders. Housed inside the Console. Connects to an external power source and to the Lift Controls.
- **Flow Divider.** Evenly splits the Hydraulic Fluid coming from the Power Unit so that the Platforms raise and lower together.
- **Drive-up Ramps.** Used to drive onto and off of the Platforms for the MDS-6EXT and MDS-6LP. Not included with the MDS-6EXTF or the MDS-6LPF.
- **Platforms.** The tops of the Lift. Flat steel plates that raise and lower.
- **Lift Blocks.** Rubber blocks that make contact with the lifting points on the underside of the Vehicle being raised. Eight tall and eight medium Lift Blocks are included.
- **Base.** The bottoms of the Lift. They hold the Hydraulic Cylinders, the Scissor Legs, the Safety Locks, and the Air Cylinder. You anchor the Lift in place using the Anchor Bolt holes in each Base.
- **Frames.** The Platform, Base, and Scissor Legs taken together are called a Frame. All four models described in this manual have two Frames.
- **Scissor Legs.** The parts of the Lift that raise and lower, powered by the Hydraulic Cylinders.
- **Hydraulic Cylinders.** Push the Platforms up to raise a Vehicle, move them down to lower it.
- **Safety Locks.** Hold the Platforms in place. Each Lift has multiple Safety Lock positions, which let you select the best Platform 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).
- **Cover and Adjustable Cover.** Cover the Air and Hydraulic Hoses.
- **Side Holes.** Holes in the sides of the Base through which the Air Line, Return Line, and Hydraulic Hoses are routed.

# Specifications

## MDS-6EXT and MDS-6EXTF

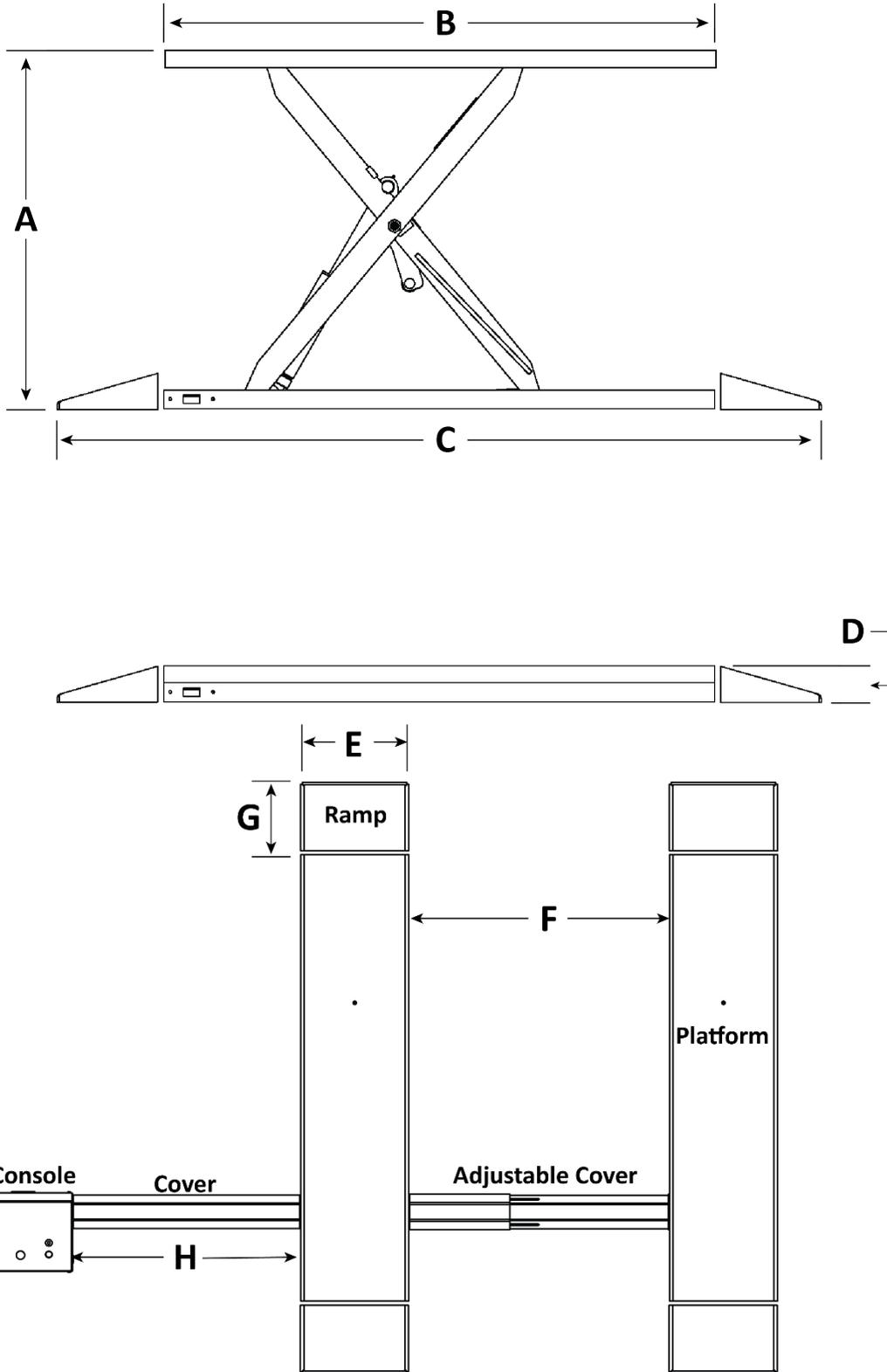


The MDS-6EXT**F** does not include Ramps or Covers.

| <b>Model</b>   | <b>MDS-6EXT</b>   | <b>MDS-6EXTF</b>  |
|--|---|---|
| Type   | Surface   | Flush-Mount   |
| Lifting capacity   | 6,000 lbs. / 2,722 kg   | 6,000 lbs. / 2,722 kg   |
| <b>A</b> Lifting height (full rise - no blocks)            | 36.75" / 933 mm   | 36.75" / 933 mm   |
| Lifting height (full rise)<br>Med. lift blocks 1.5" (38mm) | 38.25" / 972 mm   | 38.25" / 972 mm   |
| Lifting height (full rise)<br>Tall lift blocks 2.9" (75mm) | 39.65" / 1,007 mm   | 39.65" / 1,007 mm   |
| <b>B</b> Platform length                                   | 78.75" / 2,000 mm   | 78.75" / 2,000 mm   |
| <b>C</b> Total length                                      | 104.33" / 2,650 mm (ramps)  | 78.75" / 2,000 mm (no ramps)  |
| <b>D</b> Lowered height                                    | 5.25" / 133 mm  | 5.25" / 133 mm (Top of Platform to be Flush with floor)                                 |
| <b>E</b> Platform width                                    | 19" / 484 mm  | 19" / 484 mm  |
| <b>F</b> Width between Platforms                           | 40 to 46" / 1,018 to 1,168 mm   | 40 to 46" / 1,018 to 1,168 mm   |
| <b>G</b> Ramp Length                                       | 12.75" / 325 mm   | N/A No ramps  |
| <b>H</b> Max. Platform to Console                          | 40" / 1,024 mm  | 40" / 1,024 mm  |
| Lifting time   | 35 seconds  | 35 seconds  |
| Motor  | 110 VAC at 50-60 Hz., 1 Ph.<br>220 VAC at 50 Hz., 1 Ph.<br>208-230 VAC at 60 Hz., 1 Ph. | 110 VAC at 50-60 Hz., 1 Ph.<br>220 VAC at 50 Hz., 1 Ph.<br>208-230 VAC at 60 Hz., 1 Ph. |

***Specifications subject to change without notice.***

# MDS-6LP and MDS-6LPF

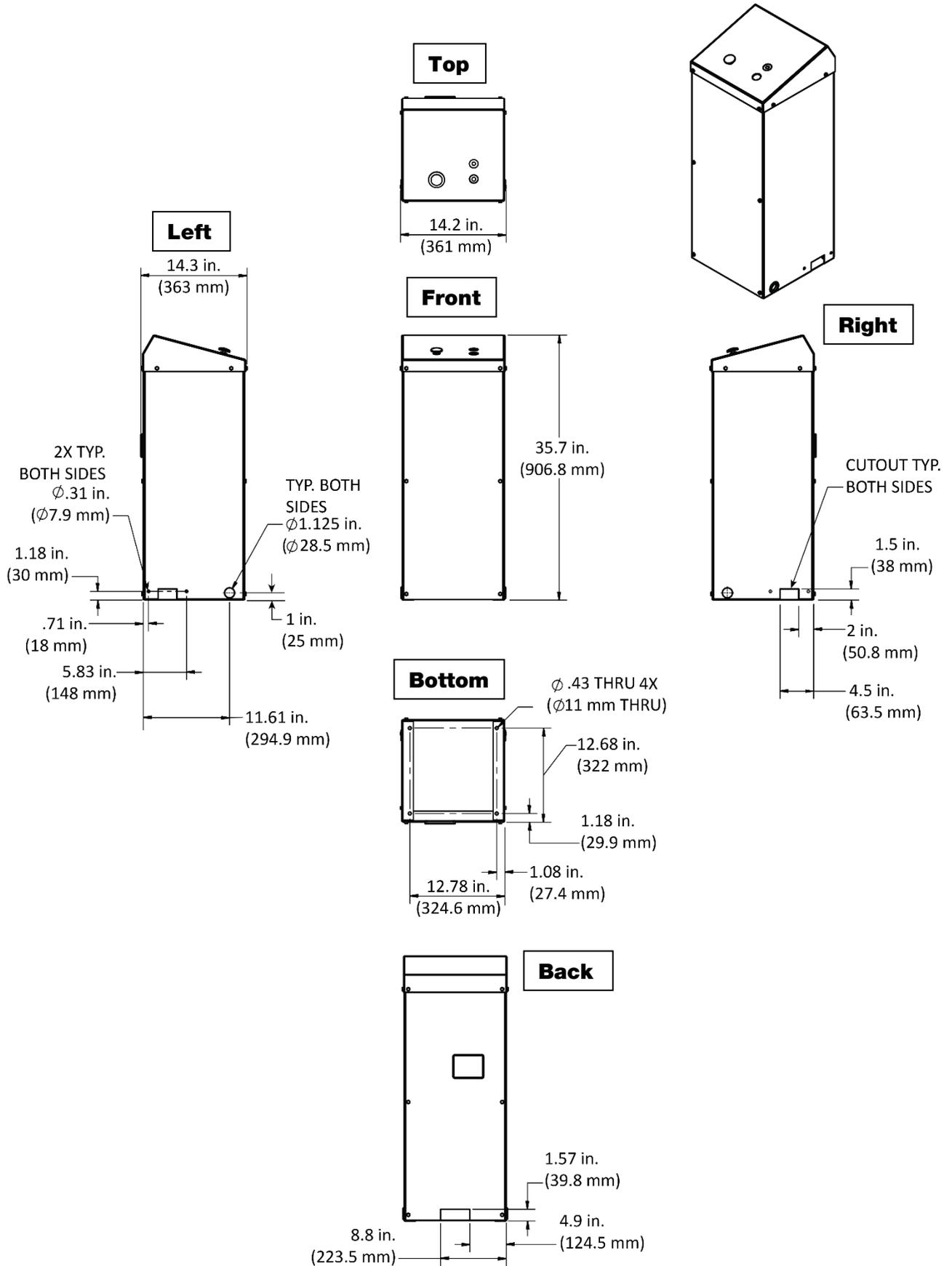


The MDS-6LP**F** does not include Ramps or Covers.

| <b>Model</b>                                    | <b>MDS-6LP</b>  | <b>MDS-6LPF</b>   |
|---|---|---|
| Type  | Surface   | Flush-Mount   |
| Lifting capacity                                | 6,000 lbs. / 2,722 kg   | 6,000 lbs. / 2,722 kg   |
| <b>A</b> Lifting height (full rise - no blocks) | 44.1" / 1,119 mm  | 44.1" / 1,119 mm  |
| Lifting height<br>Med. Lift blocks 1.5" (38 mm) | 45.6" / 1,158 mm  | 45.6" / 1,158 mm  |
| Lifting height<br>Tall Lift blocks 2.9" (75 mm) | 47" / 1,194 mm  | 47" / 1,194 mm  |
| <b>B</b> Platform length                        | 67" / 1,701 mm  | 67" / 1,701 mm  |
| <b>C</b> Total length                           | 92.5" / 2,351 mm (ramps)  | 67" / 1,701 mm (no ramps)   |
| <b>D</b> Lowered height                         | 5" / 126 mm   | 5" / 126 mm (Top of Platform to be Flush with floor)                                    |
| <b>E</b> Platform width                         | 19" / 484 mm  | 19" / 484 mm  |
| <b>F</b> Width between Platforms                | 40 to 46" / 1,018 to 1,168 mm   | 40 to 46" / 1,018 to 1,168 mm   |
| <b>G</b> Ramp Length                            | 12.75" / 325 mm   | N/A No Ramps  |
| <b>H</b> Maximum Distance Platform to Console   | 40" / 1,024 mm  | 40" / 1,024 mm  |
| Lifting time                                    | 35 seconds  | 35 seconds  |
| Motor   | 110 VAC at 50-60 Hz., 1 Ph.<br>220 VAC at 50 Hz., 1 Ph.<br>208-230 VAC at 60 Hz., 1 Ph. | 110 VAC at 50-60 Hz., 1 Ph.<br>220 VAC at 50 Hz., 1 Ph.<br>208-230 VAC at 60 Hz., 1 Ph. |

***Specifications subject to change without notice.***

# MDS-6 Series Console



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# Installation Checklist

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

- 1. Review the installation Safety Rules.
- 2. Plan for Electrical Work.
- 3. Make sure you have the necessary Tools.
- 4. Select the installation Site, verify concrete depth and compressive strength.
- 5. Check Clearances around the Lift.
- 6. Create New Pour/Concrete Cutouts, if required.
- 7. Create a Floor Plan.
- 8. Lift the Platforms off the Bases.
- 9. Read and understand, About Effective Embedment.
- 10. Anchor the Bases.
- 11. Set up and anchor the Console.
- 12. Read, Avoiding Hydraulic Contamination.
- 13. Connect the Hydraulic Hoses.
- 14. Understand Compression Fittings and Tubing.
- 15. Connect the Air Lines.
- 16. Connect the Return Lines.
- 17. Contact the Electrician.
- 18. Connect and prepare the Power Unit (**Electrician required** for some parts).
- 19. Fill the Hydraulic Fluid Reservoir and verify all Hydraulic Fittings and Plugs are tightened.
- 20. Install a Power Disconnect Switch (**Electrician required**).
- 21. Install a Thermal Disconnect Switch (**Electrician required**).
- 22. Lubricate the Lift.
- 23. Add the Ramps.
- 24. Anchor the Console (if it is not already anchored).
- 25. Perform an Operational Test.
- 26. Review the Final Checklist.
- 27. Leave the Manual for the Owner/Operator.

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# 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](http://bendpak.com/support) or call **(800) 253-2363**, extension 191.

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

## Safety Rules

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.

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 servicing your Lift.

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.

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

## Electrical Work

You will need to have a licensed, certified Electrician available at some point during the installation. The things the Electrician needs to do are grouped together near the end of the installation.

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

The Electrician needs to:

- **Connect the 220 VAC power source to the Power Unit.** The Electrician will need to provide a power cable with an appropriate plug. *The power cable and plug are not included.*
- **Install a Power Disconnect Switch.** A Power Disconnect Switch ensures that the equipment shuts down in the event of an electrical circuit fault or emergency situation. Refer to **Install a Power Disconnect Switch** for more information.
- **Install a Thermal Disconnect Switch.** A Thermal Disconnect Switch ensures that the equipment shuts down in the event of an overload or an overheated motor. Refer to **Install a Thermal Disconnect Switch** for more information.

It is the responsibility of the Electrician to bring the necessary components.

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## Tools

You may need some or all of the following tools:

- Rotary Hammer Drill or similar
- 3/4" and 3/8" Masonry Drill Bits
- Hammer
- Open-end Wrench set: Metric and SAE 1/2" to 15/16", 1 1/8" or adjustable Wrench
- Socket and ratchet set, Metric/SAE to 1-1/8"
- Medium Crescent Wrench
- Level (4 foot recommended)
- Crow Bar
- Chalk line
- Medium Flat Screwdriver
- Tape Measure (25-foot recommended)
- Forklift or Shop Crane

## Select a Site

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

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

- **Enough space.** Make sure there is adequate space on all sides, plus enough room above for the Vehicles you will be raising. Refer to **Clearance around the Lift** for more information.
- **No overhead obstructions.** Make sure the site is free of low-hanging overhead obstructions.
- **Plan ahead.** There are Electrical, Air and Hydraulic lines to be routed to the Lift Console and to the Lift itself as well as Concrete specifications and cutouts depending on the model of MDS-6 Lift. Consult with a licensed Electrician, and a Concrete Specialist early in the process to avoid costly mistakes when installing the MDS-6 Series Scissor Lift.
- **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. Note that flush-mount Lifts require a greater depth of concrete. If you intend to run the Hydraulic lines to some location further than 40" from the Lift, consult with the Concrete Specialist to determine the size, depth and location of the conduits for the Air and Hydraulic Lines.

 **WARNING** Do not install your Lift on a surface with 3° of slope or greater. A slope in excess of 3° could lead to property damage, personal injury, or death.

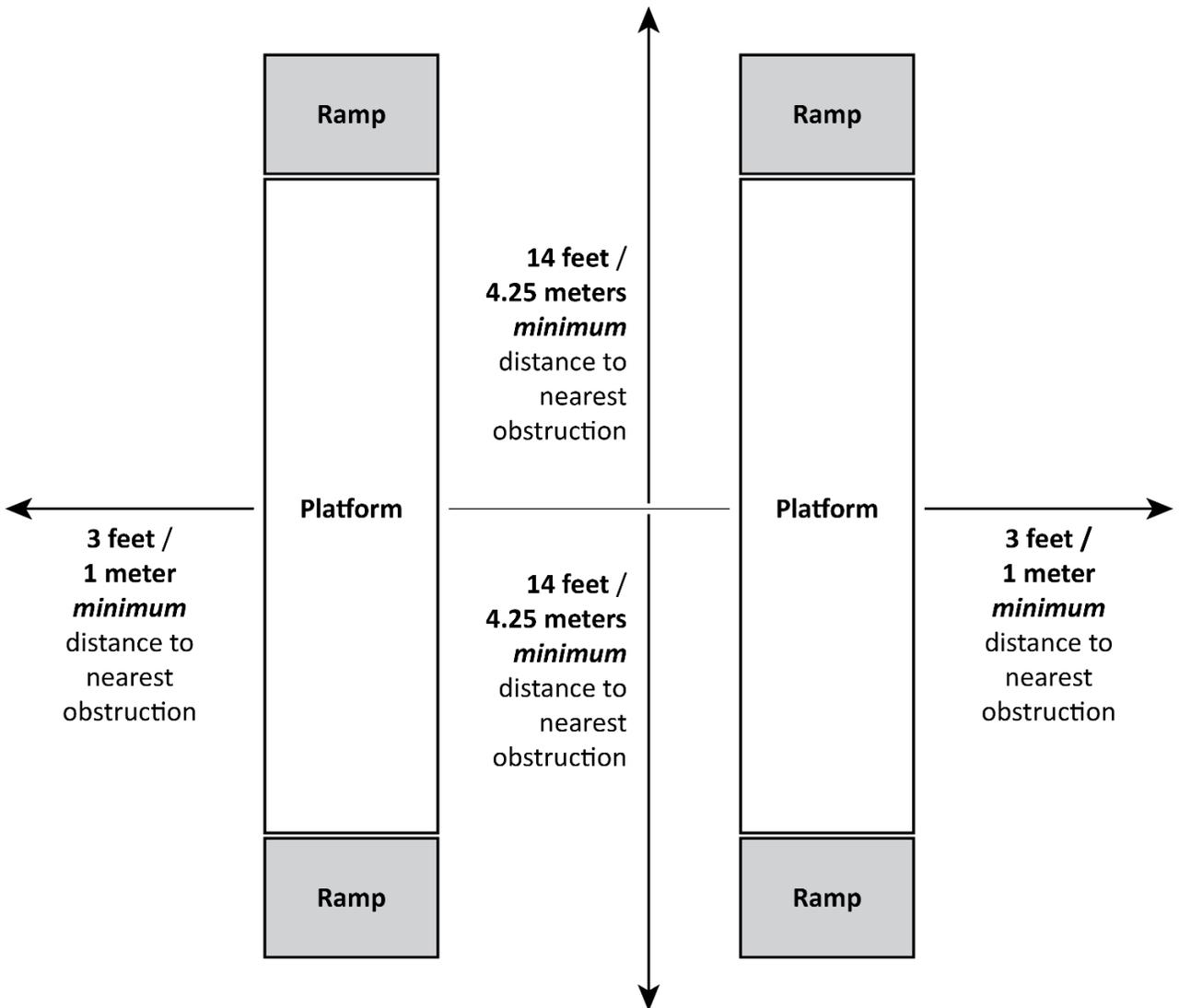
- **Power.** You need an appropriate power source near the Console. If you are using the Lift at 220 VAC at 50 Hz, or at 208-230 VAC at 60 Hz use a 25 amp circuit breaker or fuse. If you intend to run the electrical power out to the Console under new pour Concrete, consult with a licensed Electrician to ensure the correct location, depth, size and type of electrical conduit are installed according to national and local codes.
- **Operating temperature.** The Lift is designed to be used between temperatures of 41° to 104°F (5° to 40°C).

- **Outdoor installation.** All Lift models are approved for *indoor* installation and use only. Outdoor installation is prohibited.-
- **Second floor installs.** Do not install the Lift on a second floor or elevated floor without first consulting the building architect and getting their permission.
- **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.
- **Plan Ahead.** There are Electrical, Concrete and Air Lines to be routed to the Lift Console and to the Lift itself. Consult with a licensed Electrician, and a Concrete Specialist early in the process to avoid costly mistakes when installing a MDS-6 Series Scissor Lift.

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

## Clearance around the Lift

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



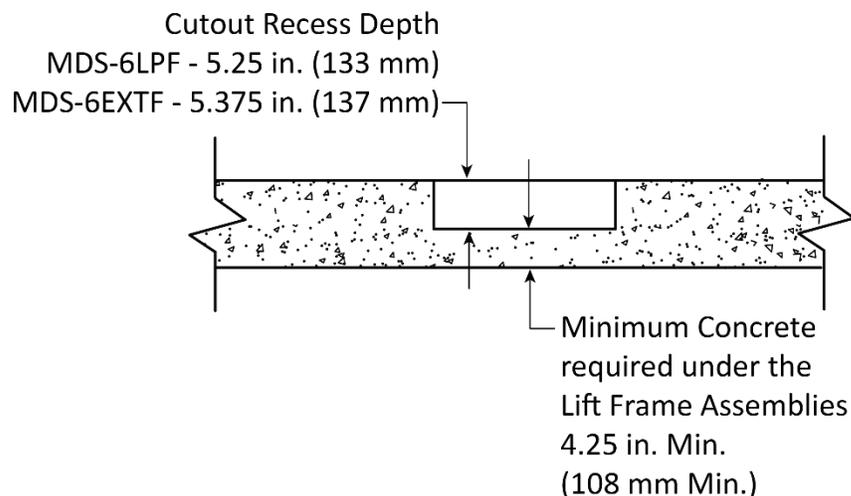
## Concrete Cutouts and New Pours

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

If you plan to cut into existing concrete to create Cutouts for your Lift, or to remove concrete for a New Pour it is important to understand the following **before** creating Concrete Structures for the MDS-6 Series Lifts:

- **All the MDS-6 Series Lifts** have slightly different dimensions. Pay close attention to the Concrete Cutout/New Pour Dimensions for your specific Lift model.
- **Concrete Cutouts.** The Lifting Frames of a Flush-Mount Lift are installed in a recessed section of the floor, called a Concrete Cutout. This cutout may be made in the existing Concrete if it meets the thickness, compression and condition requirements listed here. If not, then a properly reinforced new pour is required.
- **Drill and Core.** It is critical to determine the thickness and compression strength of the existing Concrete floor. Concrete floors must have a compression strength of at least 3,000 psi to support the Lift. A minimum of 4.25 in. / 108 mm of concrete is required **under** the Lift Frames. Drill and test a core sample to determine if the Concrete in your location meets the minimum requirements specified here.
- **Depth of the Concrete Cutouts MDS-6LPF and MDS-6EXTF.** Concrete Cutouts must be a specific depth below floor level so that the tops of the Lifting Platforms are flush with the floor. See table and diagram below.

| Model            | Concrete Cutout Recess Depth | Minimum Required Concrete under the Lift Frames |
|------------------|------------------------------|---|
| <b>MDS-6-LPF</b> | 5.25 in. / 133 mm            | 4.25 in. / 108 mm                               |
| <b>MDS-6EXTF</b> | 5.375 in. / 137 mm           | 4.25 in. / 108 mm                               |



- **Concrete Depth.** The Concrete thickness **below the bottom** of the Lift Frames must be deep enough for the Anchor Bolts to embed; a minimum of 4.25 in. / 108 mm is required.
- **Concrete Curing Time.** New Pour Concrete must cure for a minimum of 28 days before they are strong enough to support Anchor Bolts.

- 
- **Floor Material.** Concrete Cutouts and New Pour must be surrounded by and created in a **Concrete** floor; no other surface (asphalt, dirt, anything else) is acceptable.
  - **Planning.** There are critical decisions to make **before** creating your Concrete Cutouts or New Pour: Lift location, Console location, and how far apart the two Lifting Frames will be. Incorporate your decisions into the Plan you create with your Concrete Specialist.
  - **Cutout Size.** Concrete Cutouts need to be slightly larger than the Frame Assemblies. The values listed on the following pages add about 0.5 inch ( $\approx 12.75$  mm) on all four sides of each Frame Assembly. Pay careful attention to the dimensions listed, as each model has slightly different dimensions.
  - **Hydraulic Hoses, Air Lines, and Return Lines MDS-6LPF and MDS-6EXTF.** Because the Frame Assemblies are recessed, the Air Line, Return Line, and Hydraulic Hoses are recessed as well. Your plan for the Concrete Cutouts or New Pour need to account for how these Lines will be routed to the Console.

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

Both Frame Assemblies come with rectangular openings for routing the Hydraulic and Air Lines; two per Base, both on the Cylinder end. There is one circular opening in the bottom of each Frame, also on the Cylinder end, that can be used for routing the Hydraulic Hoses, Air Lines, and Return Lines.

These openings are for your convenience. If they work for your application, use them. You are not required to use them.

- **Lift Location.** Use care when selecting a location for the Lift. Choose a location that allows a straight approach to the lift, without obstructions, and allows access to power and air. Once you create your Concrete Cutouts or a New Pour, the Lift location is fixed.
- **Console Location.** The Console can be installed on either the right or left side of the Lift, but at the Cylinder end of the Frame Assemblies. The supplied hose assemblies allow you to install the Console a maximum of 40 inches (1,016 mm) away from the closest Frame Assembly. You can mount the console further away, but this will require custom fabrication of Hydraulic Hoses, longer Air Lines and more Hydraulic Fluid. Plan accordingly.
- **Distance between Frame Assemblies.** The Frame Assemblies can be from 40 to 46 inches (1,016 to 1,168 mm) apart, allowing you to pick the best width for the Vehicles you will be lifting. Determine the distance you want, then add that to your Planning.
- Use the dimensions shown in the diagrams on the following pages to create New Pour installations or to cut the existing concrete for your installation.

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## New Concrete Slab Requirements

If the concrete in your Lift location is unsuitable in some way (thickness, compression strength, condition, etc.) then the following recommendations for a new concrete slab are offered. Please read the following concrete recommendations carefully before producing any new Concrete structures for the Lift.

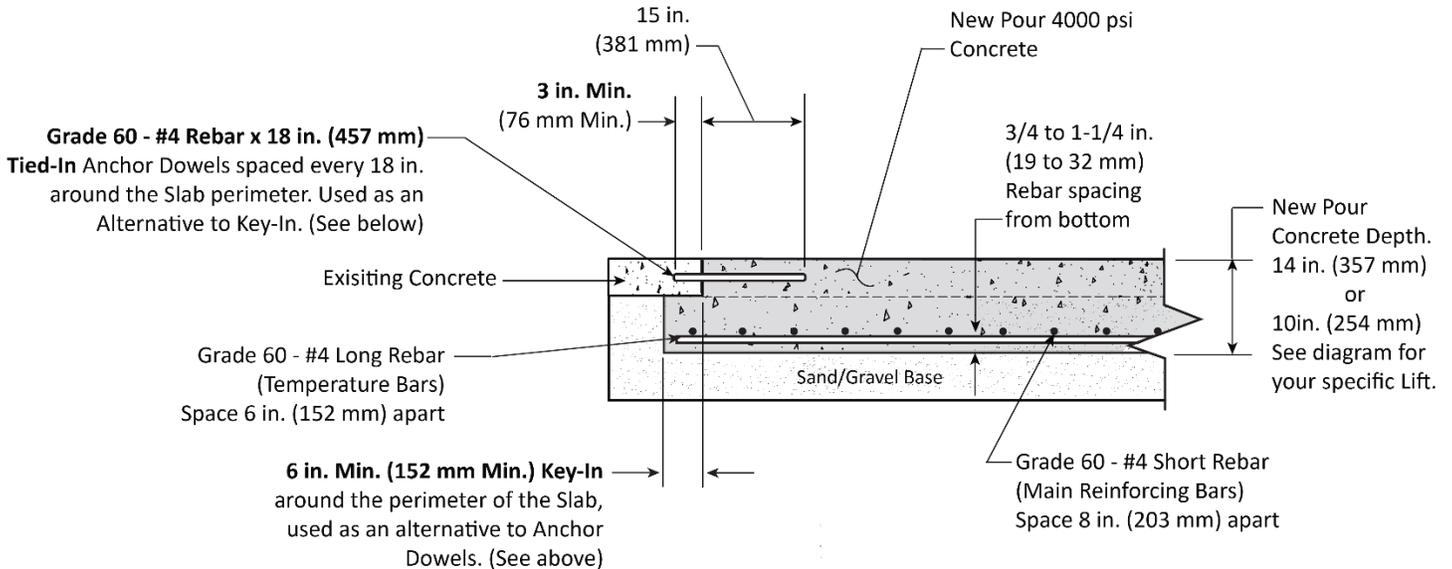
***BendPak strongly recommends working with a concrete specialist to plan and create Concrete Cutouts and/or Slabs for the MDS-6 Lift.***

- **All properties** of the new Slab are mandatory and must conform to these requirements before the Lift is deemed acceptable.
- **New Concrete Slabs** must be totally surrounded by and flush with the existing concrete floor.
- **New Concrete Slabs** must be “Keyed-In” around the perimeter of the pour or may be “Tied-in” using Anchor Dowels. See Key-In/Tie-In Detail below.
- **Compression strength** of the New Pour Concrete Slab is to be 4000 psi minimum.
- **Minimum aging** of new Concrete Slabs is 28 Days.
- **Minimum thickness** of the New Pour Concrete Slab is 14 in. (356 mm) for Flush Mount Lifts and 10 in. (254 mm) for surface mount Lifts. See diagrams/recommendations for your specific Lift model.
- **Minimum Width and Length** of the new Concrete Slab, see diagrams/recommendations for your specific Lift Model.
- **Maximum allowed Slope** of New and existing Concrete Slabs is 3-Degrees. Defined as no more than 3/8 in. (9.5 mm) difference over the installation area.
- **Steel reinforcement** use Grade 60 - #4 rebar Ø1/2 in (Ø12.7 mm) Nominal Diameter.
- **Rebar Spacing** as per the diagrams/recommendations on the following pages.
- **Locate reinforcing bars** away from any anchor positions or at an elevation that allows you to avoid drilling into reinforcing steel while installing the Expansion Anchors for the Lift.
- **Certified strength documentation** for New Pours should be obtained from the firm who supplies the Concrete Mixture at the time of the pour.
- Do **not** install the Lift on any surface other than Concrete conforming to the minimum compressive strength, aging, reinforcement, and thickness stated in these requirements.
- **Never** install the Lift over an expansion joint.
- All Lift Anchors **must** be a minimum of 6 in. (152 mm) away from any expansion seams, control joints or other inconsistencies in the Concrete.
- **Never** install the Lift on hand-mixed Concrete.
- Do **not** install the Lift on a secondary floor level or on any ground floor with a basement beneath without written authorization from the building Architect and prior approval of BendPak Inc.
- **Never** drill or cut into a post tensioned slab. Seek qualified personnel to identify cable locations prior to cutting or drilling

## Key-In / Tie-In Detail, Flush Mount MDS-6EXTF and MDS-6LPF

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

The first method is termed a **“Key-In”**. This method undercuts the existing concrete by **6 in. / 152 mm** around the perimeter of the New Pour. Effectively locking the New Pour into the existing concrete. See Cross-Section diagram below.



The second method uses Anchor Dowels and the New Pour is said to be **“Tied-In”**. Anchor Dowels are made from **#4 Rebar x 18 inches / 457 mm long**. These Anchor Dowels are then embedded **3 inches / 76 mm** minimum into the existing concrete and spaced **18 inches / 457 mm** apart around the perimeter of the New Pour. See figure above.

### New Pour Concrete Dimensions

The Anchoring Method you choose will impact your New Pour Concrete dimensions. It is important to avoid placing rebar where it will be struck during the drilling operation for the Lift’s anchors or where it would interfere with the recessed section for the Flush Mount Lifts. In general, the Key-In technique allows you to have the Lift Frames within 6 in. / 152 mm of the existing Concrete, but Anchor dowels force you to move the Lifting frames at least 15 to 18 in / 381 to 457 mm away from the existing concrete. **This dimension is labelled Dim. A in the following diagrams.**

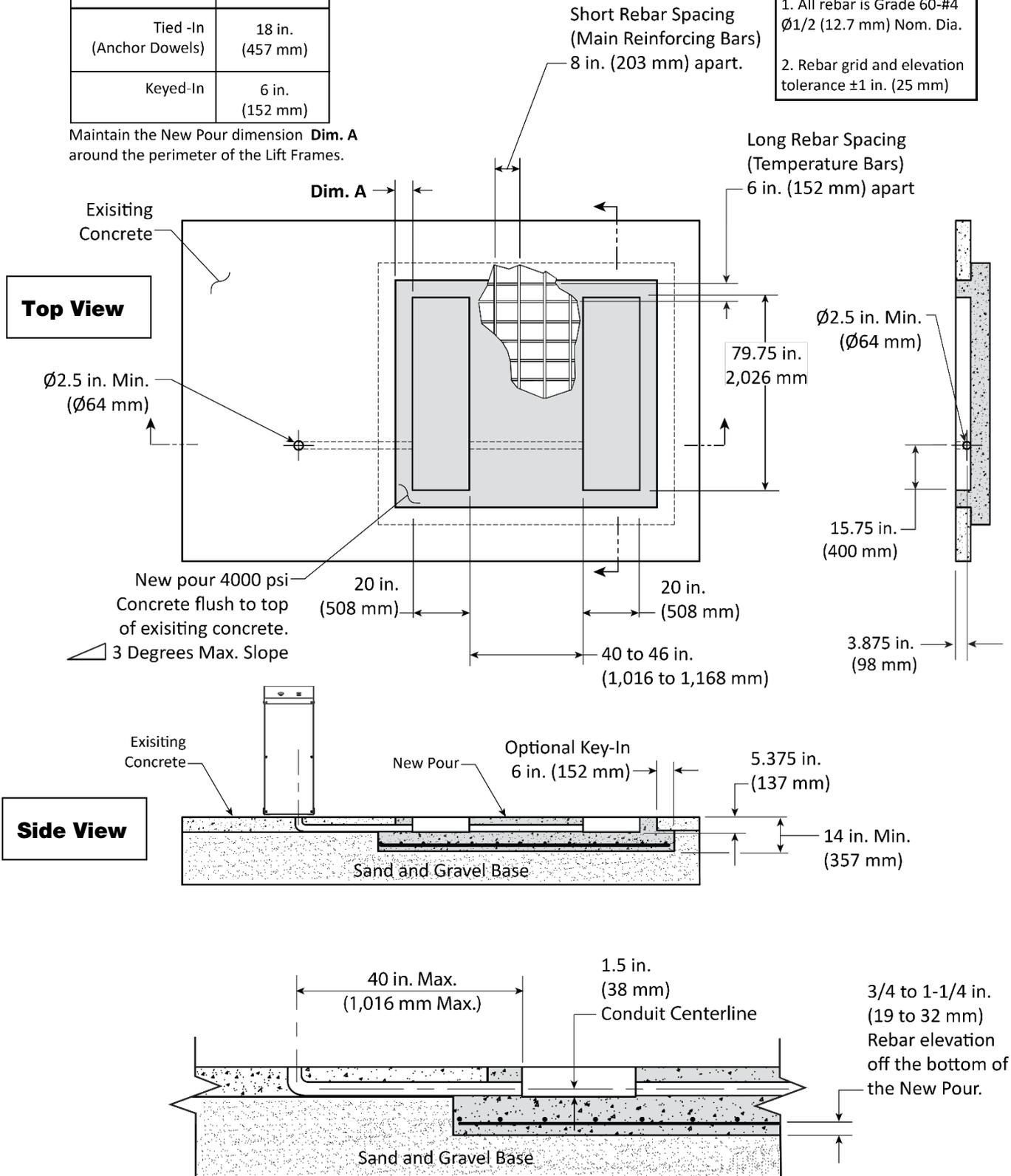
The following pages detail recommendations for New Pour Concrete on the MDS-6 Series Lifts.

**MDS-6EXTF** – Use the following diagram as recommendations for creating Concrete Cutouts and/or a New Pour for the **MDS-6EXTF** only.

| Anchoring Method           | Dim. A             |
|----------------------------|--------------------|
| Tied-In<br>(Anchor Dowels) | 18 in.<br>(457 mm) |
| Keyed-In                   | 6 in.<br>(152 mm)  |

Notes:  
 1. All rebar is Grade 60-#4  
 $\text{Ø}1/2$  (12.7 mm) Nom. Dia.  
 2. Rebar grid and elevation  
 tolerance  $\pm 1$  in. (25 mm)

Maintain the New Pour dimension **Dim. A** around the perimeter of the Lift Frames.



*Do not scale drawing. Not all components shown.*

The Flush-Mount Lift layout dimensions for the **MDS-6EXTF** are:

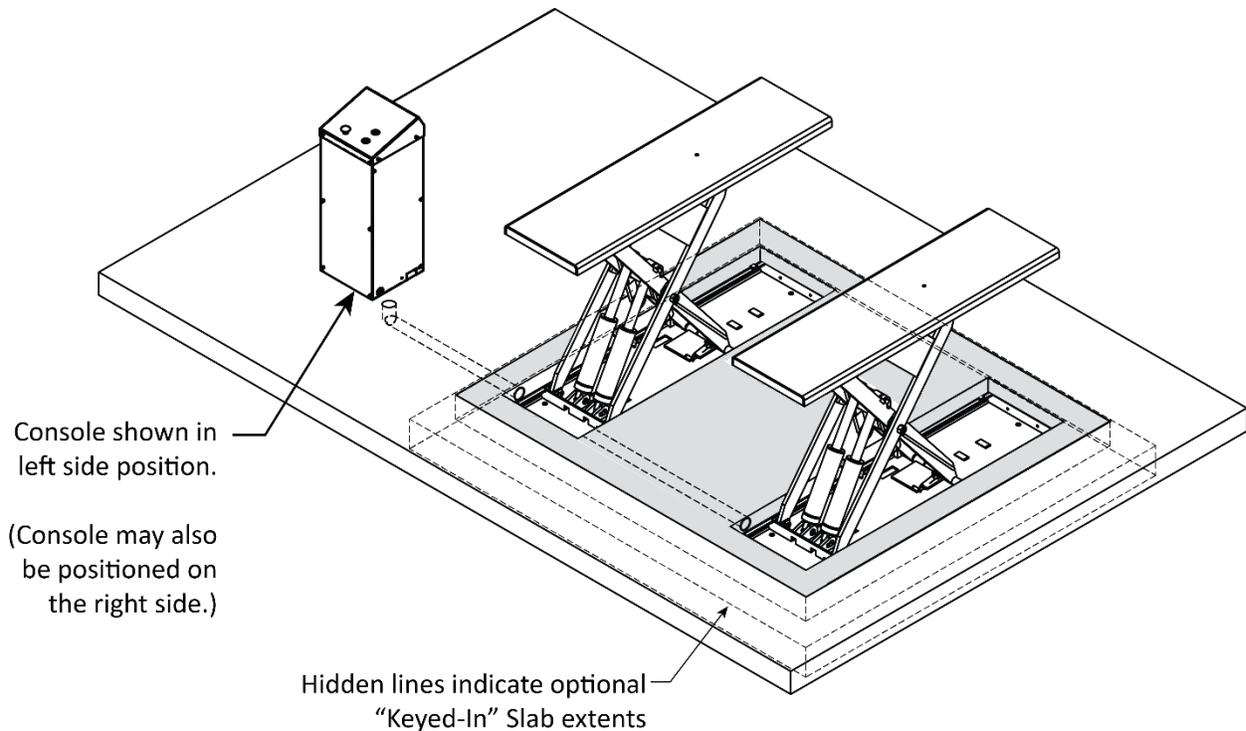
- **Length.** The Length of each Lifting Platform is 78.75 inches / 2,000 mm; add 1 inch / 25 mm to get **≈79.75 inches / 2,025 mm**.
- **Width.** The Width of each Frame is 19 inches / 484 mm; add 1 inch / 25 mm to get **≈20 inches / 509 mm**.
- **Depth.** The Lowered height of each **MDS-6EXTF** Lifting Frame Assembly is **5.24 inches / 126 mm**. Make the depth for each frame **5-3/8 inches / 137 mm** minimum.
- **Distance Between.** The two Lifting Platform Assemblies can be from **40 to 46 inches / 1,018 to 1,168 mm** apart. You do **not** add an extra inch to this value. Determine this width based on the Vehicles you will be lifting.
- **Distance to Console.** The hose assemblies supplied allows the Console to be up to **40 inches / 1,016 mm** from the nearest Frame Assembly on the left or right side, but on the cylinder end of the Lift Frames. You can mount the console further away, but this will require custom fabrication of Hydraulic Hoses, longer Air Lines and more Hydraulic Fluid. Plan accordingly.

**NOTICE**

If you create your Concrete Cutouts or a New Pour and then change your mind about the Distance between the Ramps or find out you made an error on a dimension, it is very difficult to fix. BendPak recommends double checking your plan several times before cutting or pouring Concrete Cutouts. Mark the lift outline in chalk or tape on the floor and attempt a dry-run with the Vehicle to verify that the placement and dimensions are correct, before you cut.

***BendPak strongly recommends working with a concrete specialist to plan and create Concrete Cutouts and/or Slabs for the MDS-6 Lift.***

The Figure below details the **MDS-6LPF** mounted in a New Pour.



*Do not scale drawings. Not all components shown.*

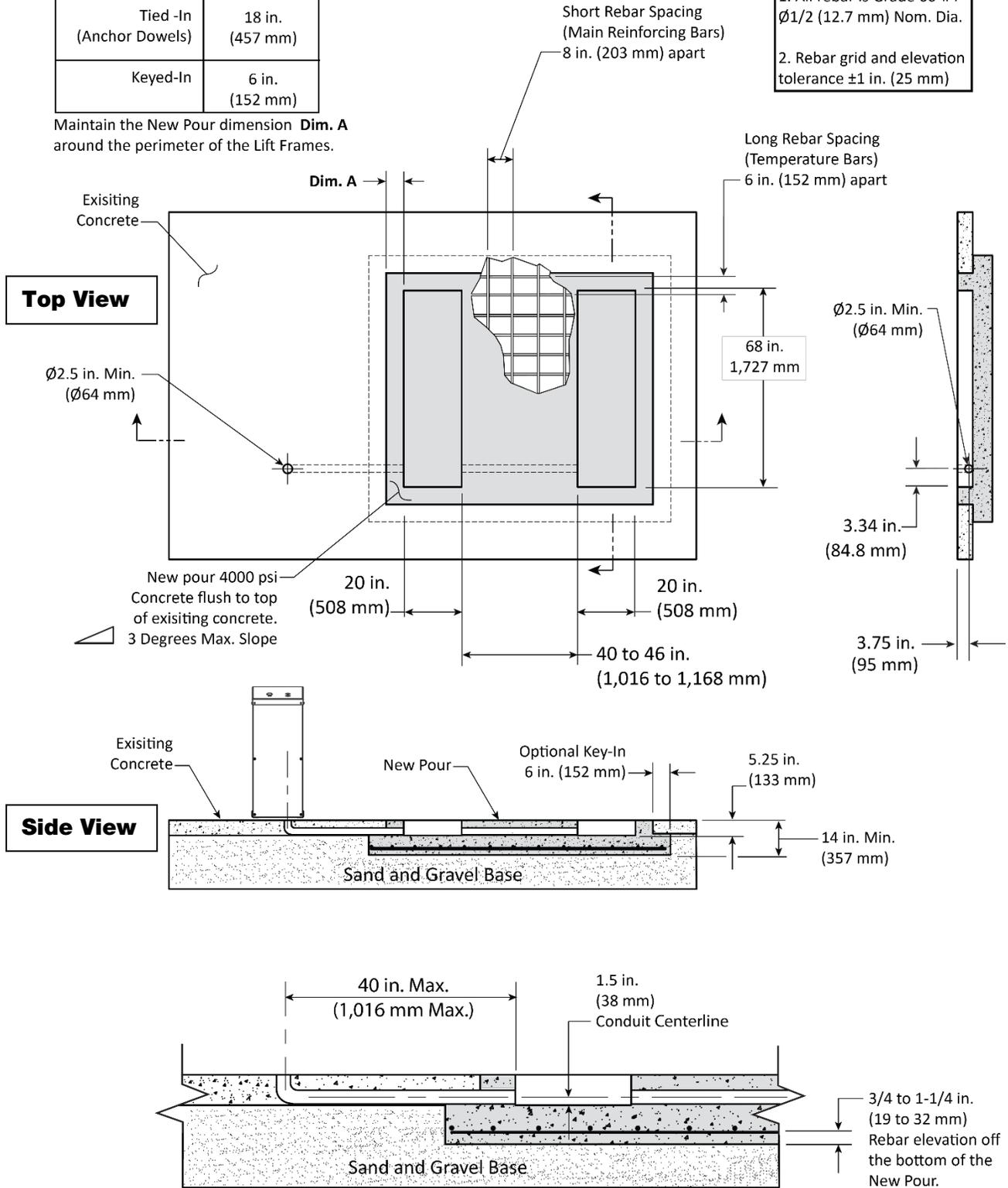
## MDS-6LPF

Use the following diagram as recommendations for creating Concrete Cutouts and/or a New Pour for the **MDS-6LPF** only.

| Anchoring Method           | Dim. A             |
|----------------------------|--------------------|
| Tied-In<br>(Anchor Dowels) | 18 in.<br>(457 mm) |
| Keyed-In                   | 6 in.<br>(152 mm)  |

- Notes:
1. All rebar is Grade 60-#4  $\phi 1/2$  (12.7 mm) Nom. Dia.
  2. Rebar grid and elevation tolerance  $\pm 1$  in. (25 mm)

Maintain the New Pour dimension **Dim. A** around the perimeter of the Lift Frames.



Do not scale drawing. Not all components shown.

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The Flush-Mount Lift dimensions for the **MDS-6LPF** are:

- **Length.** The Length of each Lifting Platform is 67 inches / 1,701 mm; add 1 inch / 25 mm to get **≈68 inches / 1,726 mm.**
- **Width.** The Width of each Frame is 19 inches / 484 mm; add 1 inch / 25 mm to get **≈20 inches / 509 mm.**
- **Depth.** The Lowered height of each Frame Assembly is **5 inches / 127 mm.** Make the depth for each frame **5.25 inches / 133 mm** minimum. You do **not** add an extra inch to this value.
- **Distance Between.** The two Bases can be from **40 to 46 inches / 1,018 to 1,168 mm** apart. You do **not** add an extra inch to this value. Determine this width based on the Vehicles you will be lifting.
- **Distance to Console.** The supplied hosing allows the Console to be up to **40 inches / 1,016 mm** from the nearest Base. You do **not** add an extra inch to this value.

**NOTICE**

If you create your Concrete Cutouts or New Pour and then change your mind about the Distance between the Ramps or find out you made an error on a dimension, it is very difficult to fix. BendPak recommends double checking your plan several times before cutting or pouring Concrete Cutouts. Mark the Lift outline in chalk or tape on the floor and attempt a dry-run with the Vehicle to verify that the placement and dimensions are correct, before you cut.

***BendPak strongly recommends working with a concrete specialist to plan and create Concrete Cutouts and/or Slabs for the MDS-6 Lift.***

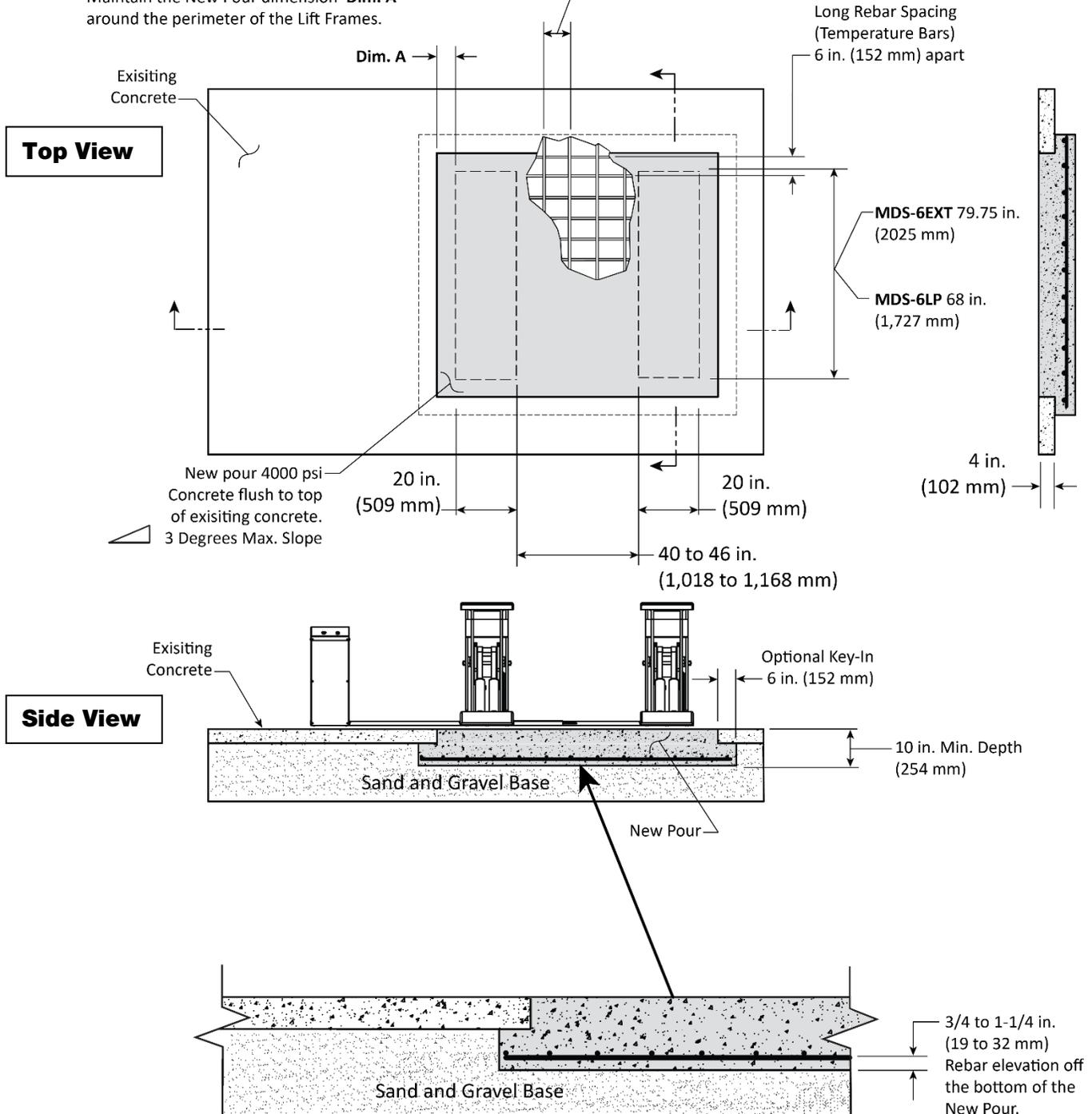
## MDS-6LP and MDS-6EXT

Use the following diagram as recommendations for creating Concrete Cutouts and/or a New Pour for the **MDS-6LP and MDS-6EXT**.

| Anchoring Method           | Dim. A             |
|----------------------------|--------------------|
| Tied-In<br>(Anchor Dowels) | 18 in.<br>(457 mm) |
| Keyed-In                   | 6 in.<br>(152 mm)  |

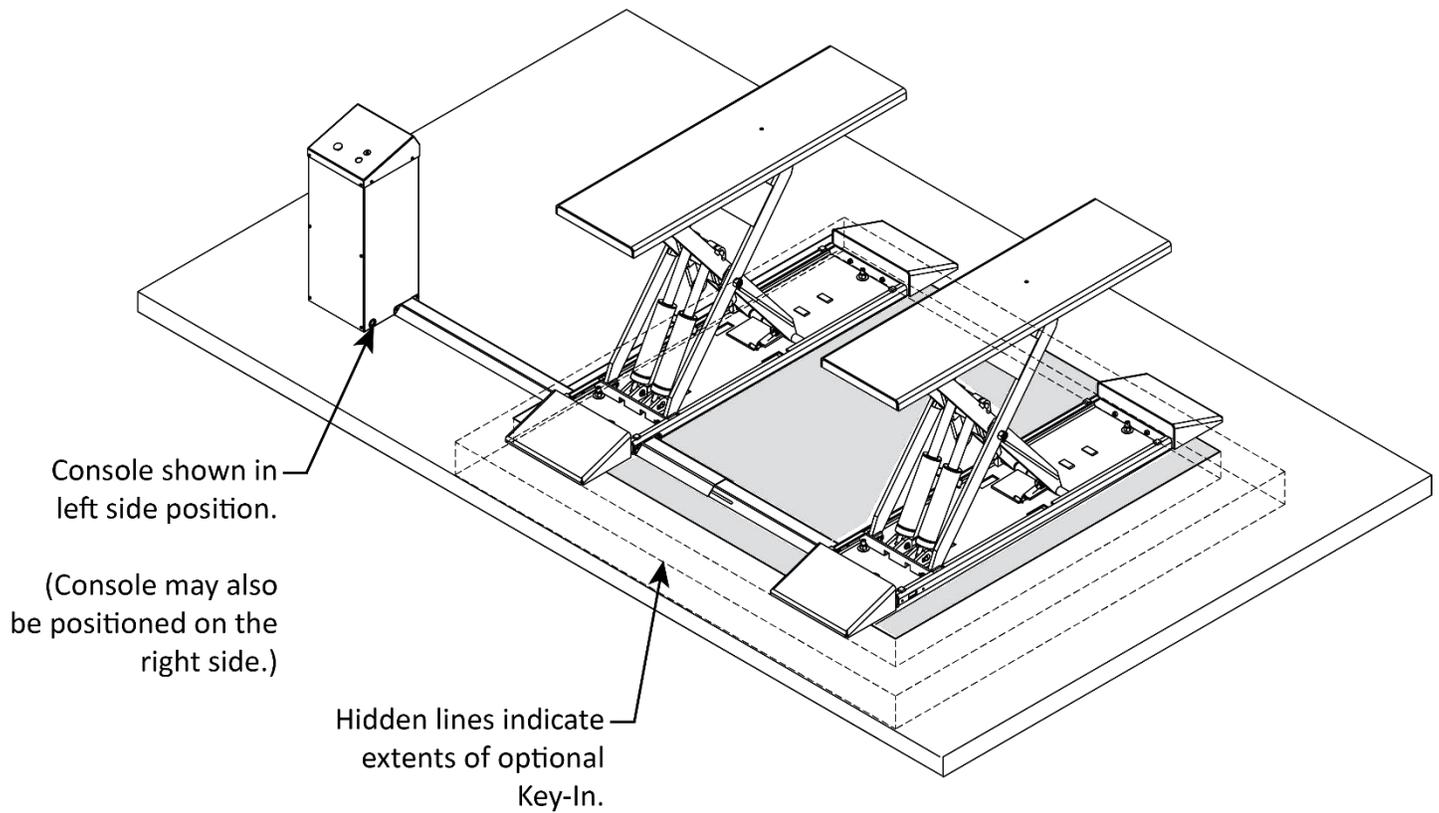
Maintain the New Pour dimension **Dim. A** around the perimeter of the Lift Frames.

Notes:  
 1. All rebar is Grade 60-#4  
 $\varnothing 1/2$  (12.7 mm) Nom. Dia.  
 2. Rebar grid and elevation  
 tolerance  $\pm 1$  in. (25 mm)



Do not scale drawings. Not all components shown.

The figure below details an **MDS-6LP** mounted on a New Pour.



***BendPak strongly recommends working with a concrete specialist to plan and create Concrete Cutouts and/or Slabs for the MDS-6 Lift.***

## Create a Floor Plan

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

- **Clearance.** Make sure there is clearance on all sides and above the Lift site.
- **Console.** The Console must be near the Lift; it can be installed on either the left or right side but only on the cylinder end of the Ramps. The Hydraulic Hoses that come with the unit can support up to 40 inches between the Lift and the Console.
- **Operator.** The operator at the Console **must** have a full, unobstructed view of the Lift.
- **Power.** The Console must be positioned near an appropriate power source.
- **Set up Chalk Line Guides.** Create Chalk Line Guides for the Lift to make sure the Lift is properly aligned.

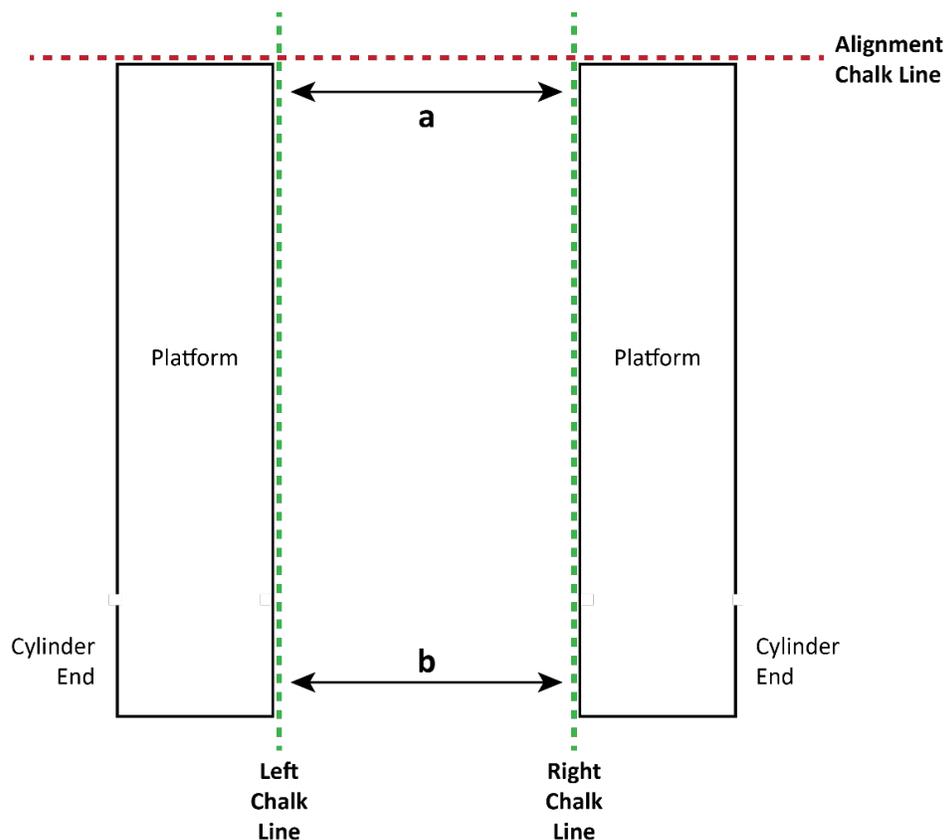
### To create Chalk Line Guides:

1. Decide where you want to locate the Lift. Keep in mind the Console needs to be within 40 inches.
2. Create an Alignment Chalk Line where you want the front of the Lift. Note that the drawing below does not show the Ramps.

Make the Alignment Chalk Line longer than the width of the Platforms and the space between.

3. Add two more Chalk Lines perpendicular to the Alignment Chalk Line and the same distance apart that you want your Platforms to be (within the range of 40" to 46" / 1,018 mm to 1,168 mm).

The following drawing shows the Alignment Chalk Line at the front of the Lift and Left and Right Chalk Lines perpendicular to the Alignment Chalk Line.



*Not to scale. Not all components shown. Ramps not shown.*

- 
4. Move the two Platforms into position where the Left and Right Chalk Lines intersect the Alignment Chalk Line.

**Tip**

If you are installing the Lift over a pit, you can skip the Left and Right Chalk Lines and just use the edges of the pit as guides. Do not overhang the pit.

5. Measure the distance between the two Platforms at points **a** and **b**; the two Platforms need to be the 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 (or the pit, if installing over a pit).

6. When the Platforms are in the correct locations, they can be anchored into place.

## Lift the Platforms off the Bases

You must raise the Platforms off their Bases in order to anchor the Lift into position and connect the Hydraulic Hose, Air Line, and Return Line. **Be sure to leave the Lift on a Safety Lock when you raise it.**

**Important:** BendPak recommends using the Eye Bolt that comes with the Lift to raise the Platforms off the Bases.

 **WARNING**

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

 **WARNING**

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

### To lift the Platforms off the Bases:

1. Retrieve the Lifting Eye Bolt from the Parts Box and install in the M10 threaded hole in the middle of the Platform you want to raise.
2. Attach a rope, chain or Industrial Sling to the Eye Bolt and use a Forklift or Shop Crane to raise the Platform off of its Base.

 **WARNING**

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

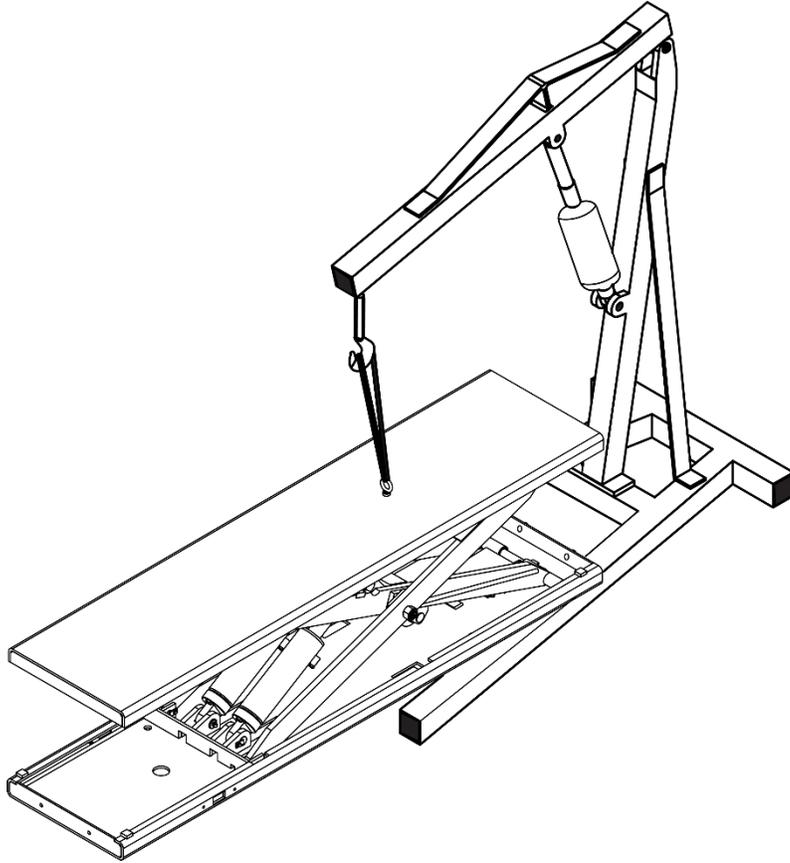
 **WARNING**

The Lifting Frame Assemblies are heavy. Do not lift the Platforms without assistance.

**Tip**

Once the Platform and Base are separated by more than half an inch (~13 mm), you may use industrial slings (straps) around each end to continue raising the Platform off the Base. You can continue using the Eye Bolt, if you prefer.

- 
3. When the Platform gets above the top Safety Lock, lower it back down onto the top Safety Lock. Leave it on the top Safety Lock.
  4. Remove the Eye Bolt from the first Platform, install the Eye Bolt on the second Platform. Perform the same procedure on the second Platform.

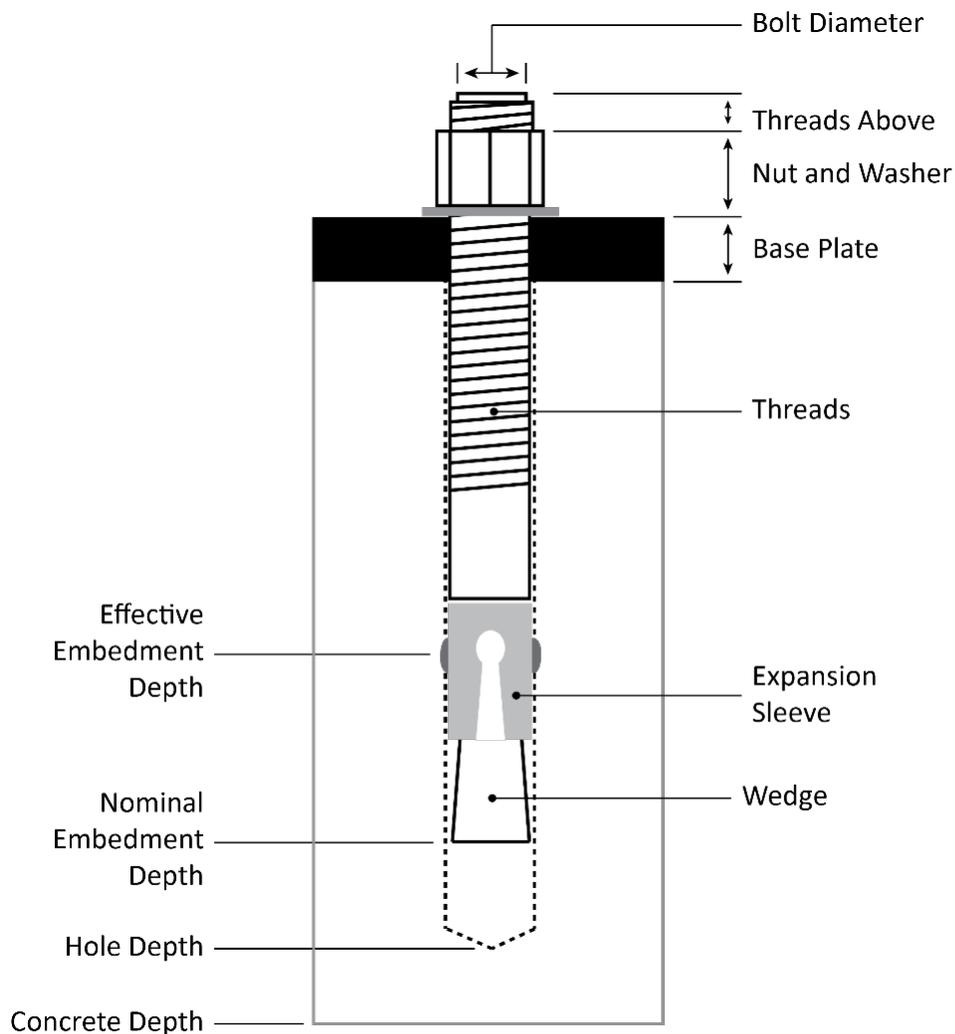


## About Effective Embedment

Anchor Bolts (also called Wedge Anchors) get their holding strength from how far down into the Hole the Anchor Bolt's Expansion Sleeve presses into the Concrete (called Effective Embedment) and how forcefully the Expansion Sleeve presses into the Concrete (based on the width of the hole and how much Torque is applied).

The further down into the Hole you get the Expansion Sleeve, the greater the Effective Embedment and thus the greater the holding strength of the Anchor Bolt. The hole must be drilled the same width as the Anchor Bolt with no wobbling. The correct amount of Torque is a range; too little Torque and the Anchor Bolts hold with less strength, too much Torque and you could damage the Concrete and lessen the Anchor Bolt's holding strength.

**Note:** Some people confuse Effective Embedment with *Nominal* Embedment, which is how far down into the Hole the *bottom* of the Anchor Bolt is. The two are **not** the same; Nominal Embedment does not tell you anything about the holding strength of the Anchor Bolt.



Make sure to carefully follow the specifications and instructions in the following procedure.

**⚠ WARNING** Use only the Anchor Bolts that came with your Lift. Only install your Lift on a Concrete floor. Make sure to get the correct amount of Effective Embedment and use the correct amount of Torque.

## Anchor the Bases

Each Ramp Assembly Base has four holes **MDS-6EXT/F** or three holes on the **MDS-6LP/F** for anchoring to the Concrete.

Before you anchor your Lift, make sure the two Platforms are correctly aligned. BendPak recommends double checking the work done when creating your Chalk Line Guides.

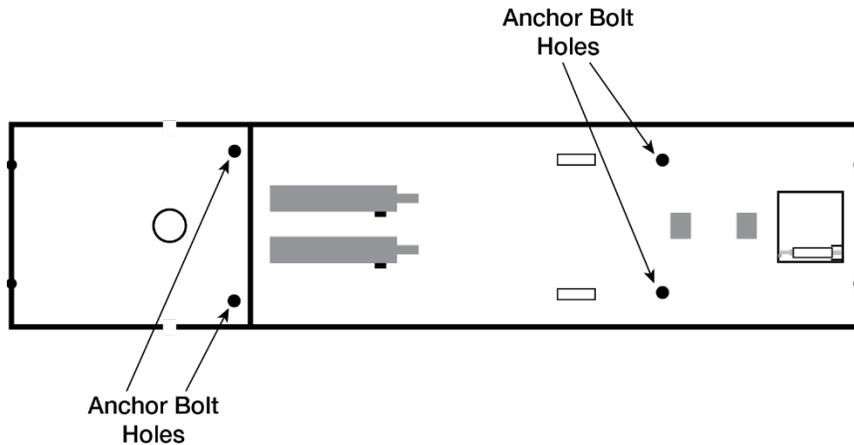
**⚠ CAUTION** Poor alignment can impact how the Lift raises and lowers. Take the time now, before you anchor the Lift in place, to make sure it is correctly aligned.

Anchor Bolt specifications:

- **Length:** 5 inches
- **Diameter:** .75 inch
- **Effective embedment depth:** 2.75 inches, minimum
- **Anchor torque:** 85 – 95 ft. lbf (do *not* Torque less than 80 or more than 105)

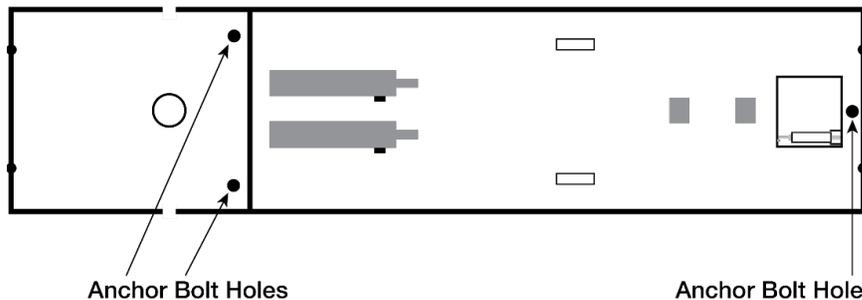
**⚠ WARNING** **Only use the factory-supplied parts that came with your Lift.** If you use components from a different source, you void your warranty and compromise the safety of everyone who installs or uses the Lift.

The following drawing shows the locations of the Anchor Bolt holes for the **MDS-6EXT/F**.



*Not to scale. Not all components shown.*

The following drawing shows the locations of the Anchor Bolt holes for the **MDS-6LP/F**.



*Not to scale. Not all components shown.*

## To anchor the Bases:

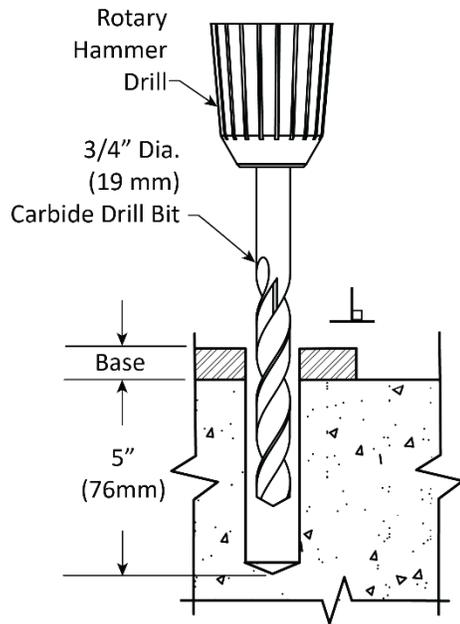
1. Make sure the Ramp Bases are where you want them.

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

2. Using the holes in the Bases as guides, drill the holes for the Anchor Bolts.

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

Go in straight; do not let the Drill wobble.



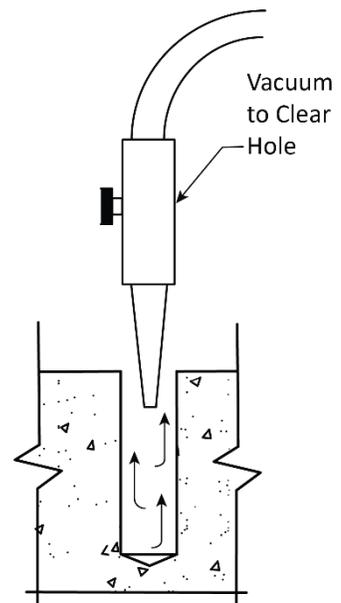
Use a Carbide Concrete Drill (conforming to ANSI B212.15).

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.

**CAUTION** Eye protection required for drilling and cleaning debris from the hole.

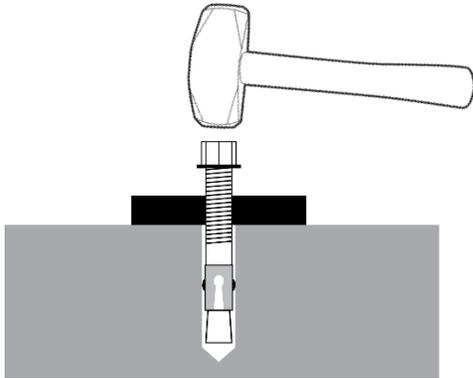
3. Clean each hole. Use a vacuum to completely clean the hole. If a vacuum is not available, you could use a wire brush, hand pump, or compressed air.

Do **not** ream the hole. Do **not** make the hole any wider than the Drill Bit made it.



4. Insert an Anchor Bolt with Washer into each hole, then tap it down into the hole.
5. Make sure the Washer and Nut are in place, then insert the Anchor Bolt into the hole.

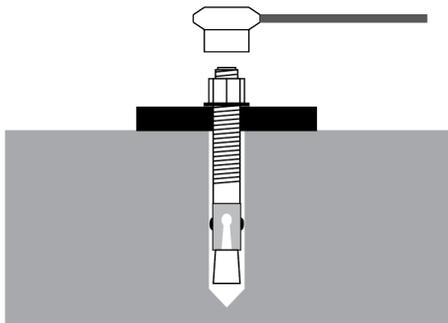
The Expansion Sleeve of the Anchor Bolt may prevent the Anchor Bolt from passing through the hole in the Base; this is normal. Use a Hammer or Mallet to get the Expansion Sleeve through the Base and into the hole.



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 ft-lbs., (115 – 129 N·m) using a Torque Wrench.



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

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

## Assemble and Anchor the Console

The Hydraulic Hoses, Air Line, and Return Line require the Console to be within 40 inches of the cylinder end of the Lift on either the left or right side.



### Tip

If you want to set up the Console further than 40 inches from your Lift, you will need to have Hydraulic Hoses fabricated 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 to be. You will also need longer Air and Return Lines. **For safety purposes, the Console operator must be able to see the Lift during operation.**

The following procedure describes assembling and anchoring the Console into place. If you prefer, you can defer anchoring the Console until you are sure of its permanent location.

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

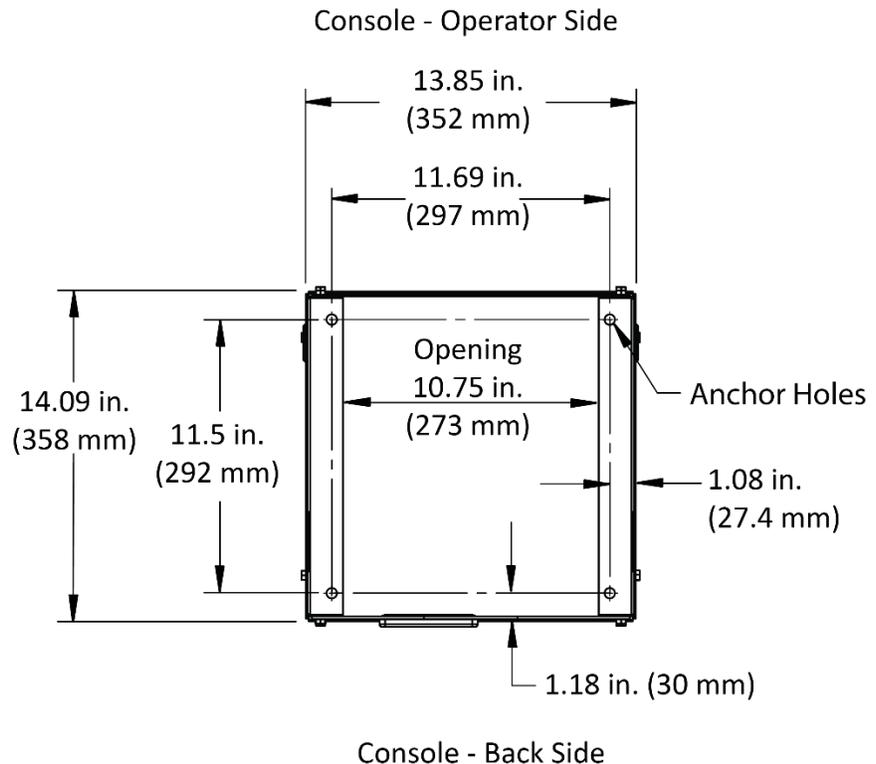
When you want to anchor the Console in place, return to this section and follow the instructions.

### To assemble and anchor the Console:

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

The Console may be mounted on either the left or right side of the Lift, up to 40 inches away from the Cylinder end in a direct line from the square opening in the Lift Base where the Hydraulic and Air Lines will be routed.

2. Using the Console Base dimensions provided here, sketch with chalk, pencil or tape the outline of the console on the concrete. Verify that the chosen location allows an unobstructed view of the Lift and will not interfere with opening the Vehicle doors, or cause any other interference.

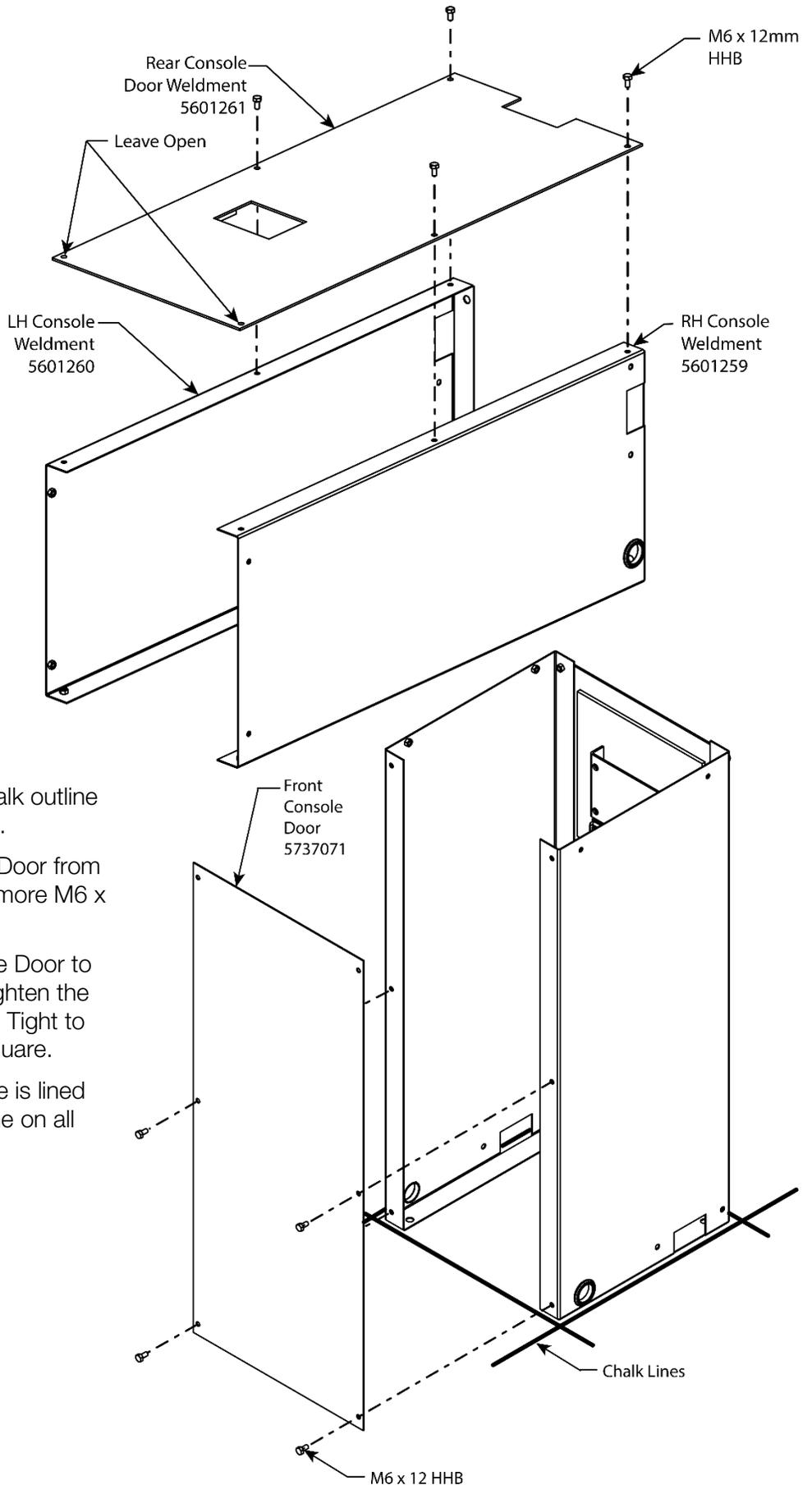


- Open the Power Unit Console Box and retrieve the Rear, Left Hand and Right Hand sides of the Console as well as four M6 x 12mm Hex Head Bolts.

- On a flat level surface, place cardboard or rags down to prevent marring the paint and assemble as shown to the right.

Note the orientation of the sides and tighten the Hex Head Bolts. Do not insert the top two Hex Head Bolts.

- Stand the three sides up and move the assembly over the chalk outline made in step 1 above.
- Retrieve the Console Door from the packaging and 4 more M6 x 12 Hex Head Bolts.
- Assemble the Console Door to the three sides and tighten the Hex Head Bolts Hand Tight to keep the assembly square.
- Verify that the Console is lined up on the Chalk outline on all four sides.



**Note:** There are four mounting holes in the bottom flange of the Console. You only need to anchor two of the four holes. BendPak recommends installing them diagonally from each other; one in the front right, the other in the left rear, for example.

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

9. Using the holes in the base as a guide, drill two holes 3/8" diameter by 3" deep into the Concrete.

Drill in to the concrete straight; do not let the drill wobble. Use a Carbide Concrete Drill Bit (conforming to ANSI B212.15).

**Note:** BendPak recommends marking the holes with the Drill through the console base. Then move the base out of the way to finish drilling the holes to the 3" depth. This will help ensure that the holes are straight and to the correct depth.

10. Clean the dust and debris from the holes. Use a wire brush, vacuum, hand pump, or compressed air. Do **not** ream the hole. Do **not** make the hole any wider than the drill bit made it.

**⚠ WARNING** Always wear appropriate eye protection and protective gear.

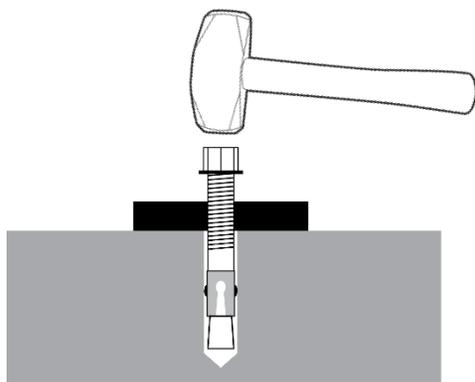
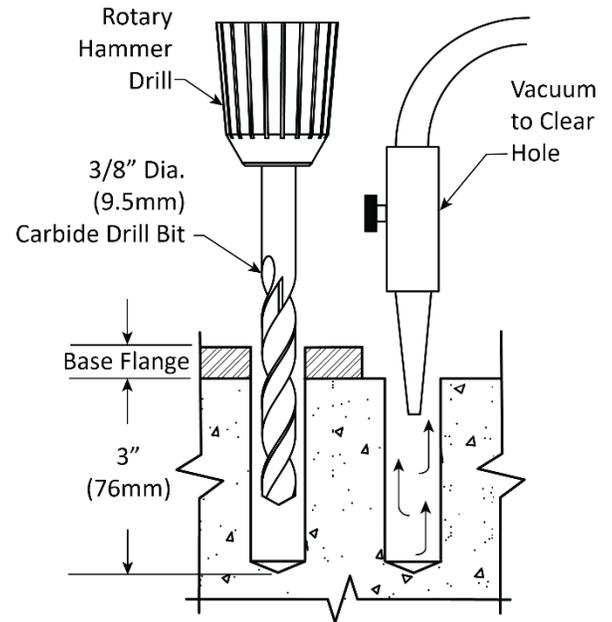
11. Move the Console back over the holes just drilled.

12. Remove the four Hex Head Bolts and the Front Console Door. Set these parts aside where they will not be damaged. This allows access to the inside of the console to tap in the Anchors.

13. Retrieve the 3/8-16 Expansion Anchors, a 3/8" Washer and Nut from the Console packaging.

14. Make sure the Washer and Nut are in place, then insert the Anchor Bolt into the mounting hole in the Console base and through into the hole just drilled in the Concrete.

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 push the Expansion Sleeve through the Base and into the hole.



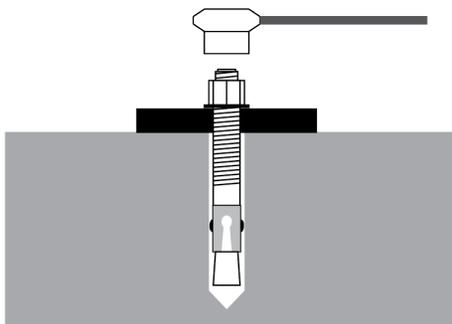
Even using a hammer or mallet, the Anchor Bolt should only go into the hole part of the way; this is normal. If the Anchor Bolt goes all the way in with little or no resistance, the hole is too large.

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

15. 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.

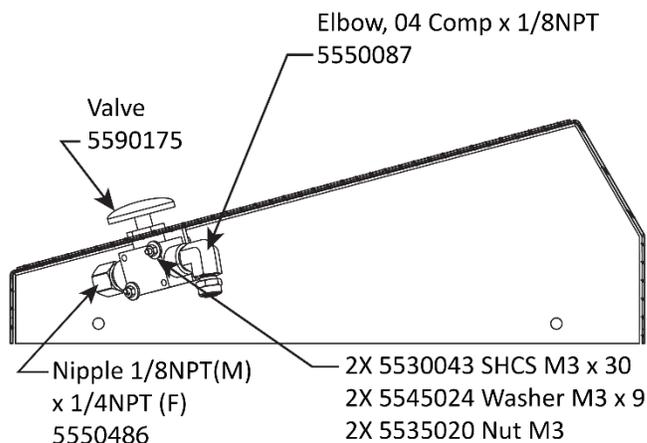
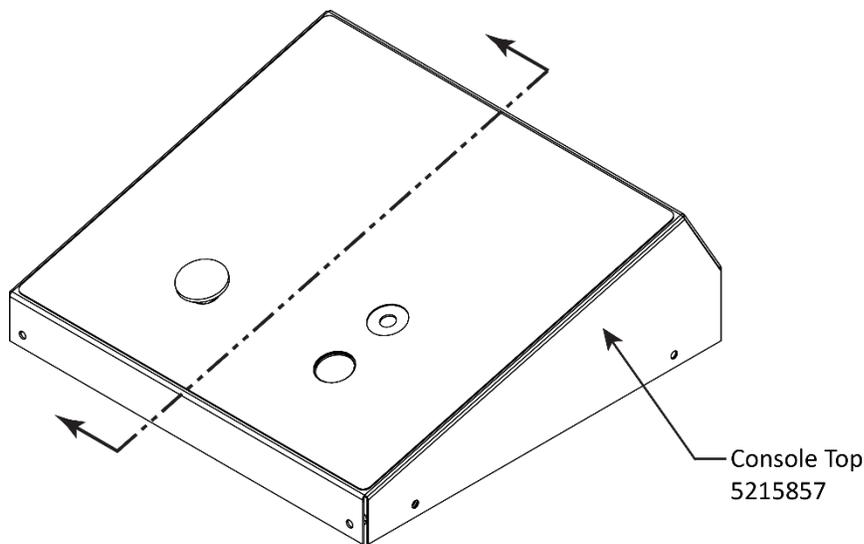
16. Wrench each Nut **clockwise** to the recommended installation torque, 10 - 15 ft lbf, (13.5 -20 N-m) using a Torque Wrench.



**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.

17. There is no need to install the Console Top (5215857) until the Power Unit with its wiring and pushbuttons are ready to be connected. See **Connect and Prepare the Power Unit**.



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## Installing the Power Unit

This section describes how to mount the Power Unit in the Console. You do **not** need an Electrician to **mount** the Power Unit, but you do need an Electrician to **connect** the Power Unit and its controls.

**Important:** Do not connect the Power Unit to the Hydraulic System or to the power source at this point in the installation; those connections will be made later.

In order to support a wide variety of applications, the Power Unit could be one of multiple Power Units that are available. Because of this, the Power Unit that came with your Lift may look slightly different from the diagrams in this Manual.

Refer to **Connect and Prepare the Power Unit** for Electrical installation information and specific information about the Power Unit that came with your Lift.

The Power Unit **must** be mounted on the Mounting Bracket in the Console.

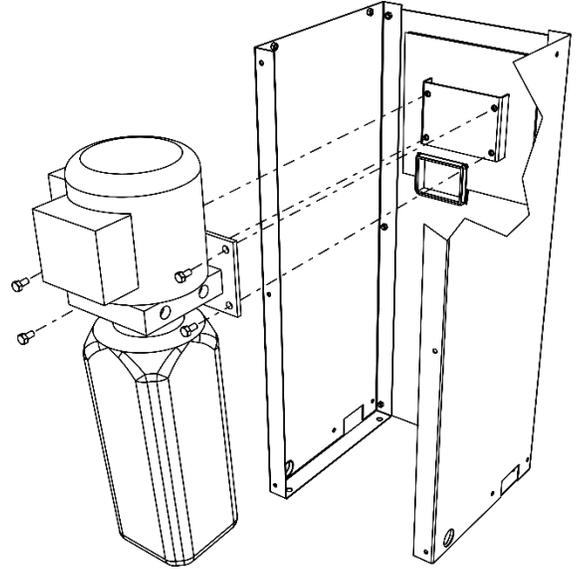
### To mount the Power Unit:

1. Find the four supplied M8 x 20 Hex Head Bolts from the Console packaging.



**Tip** The Power Unit is heavy. BendPak recommends having one person hold the Power Unit while a second person bolts it into place.

2. The Power Unit has a Mounting Bracket with four holes that match the four holes in the Rear Console Weldment. Make sure to use all four holes to secure the Power Unit.
3. Push one of the Bolts through a hole in the Power Unit Mounting Plate, through and into the Console Weldment; Thread the Bolt into the weldment hand-tight.
4. Repeat Step 3 for the other three Bolts.
5. Go back and tighten all four Bolts.



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## Hydraulic System Warnings:

-  **WARNING** Failure to observe these warnings can result in serious personal injury including, in rare cases, death.
-  **WARNING** The Hydraulic Hoses and connections **must** be inspected before any attempt to raise a Vehicle is made.
-  **WARNING** Double check to **verify** all Hydraulic Hose connections and fittings, including unused auxiliary port plugs on the Power Unit, the Flow Divider, the Cylinders and anywhere else in the Hydraulic System are tightened.
-  **WARNING** The Power Unit is a Hydraulic Pump capable of developing pressures in excess of 5,000 psi (345 BAR). A pressure relief valve is used to set the pressure at the desired level. Tampering with, adjusting, modifying, or removing the relief valve is extremely dangerous and is not recommended. Only trained Hydraulics Technicians should make adjustments to the relief valve, using calibrated Hydraulic Pressure gauges to assure the proper pressure setting is achieved.
-  **WARNING** Changes to the output pressure may render the power unit incompatible with pressure limitations of other components in the Hydraulic Circuit. This may cause catastrophic failure of those components, and could result in property damage, serious personal injury or death.
-  **WARNING** The Hydraulic System can contain high pressure which, if suddenly released, can cause serious injury or death.
-  **WARNING** Do **not** attempt to connect or disconnect Hydraulic Hoses while the equipment is loaded or while a Vehicle is on the Lift or the Hydraulic System is under pressure.
-  **WARNING** Keep bare hands away from Hydraulic Fluid; always wear gloves when handling Hydraulic Fluid, Cylinders or Hydraulic Hoses.
-  **WARNING** When handling Hydraulic Fluid, always observe the safety instructions from the manufacturer.
-  **WARNING** **Always** promptly clean any Hydraulic Fluid spills. If a leak is the source of the spill, lockout the Lift to prevent use until the Hydraulic System is repaired.
-  **WARNING** Do **not** attempt to service the Power Unit through the rear panel. Only access the Power unit through the Front of the Console.



## IMPORTANT! PLEASE READ NOW



### Hydraulic Fluid Contamination

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

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

There are several ways to clean Hydraulic Hoses and Fittings:

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

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

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

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## About Thread Sealants

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

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

Thread Sealant can be used with most Hydraulic Fittings, BendPak recommends using PTFE Thread Sealant with NPT Fittings.

## To apply Thread Sealant

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

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

2. Apply a small amount of thread sealant to the first four threads of the Fitting.

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

Only a small amount of Thread Sealant is required because the Sealant spreads to the other threads as it is tightened into place.

If you use too much, the excess Sealant will be pushed out the Fitting as it is tightened. Use a rag to wipe away any excess.

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

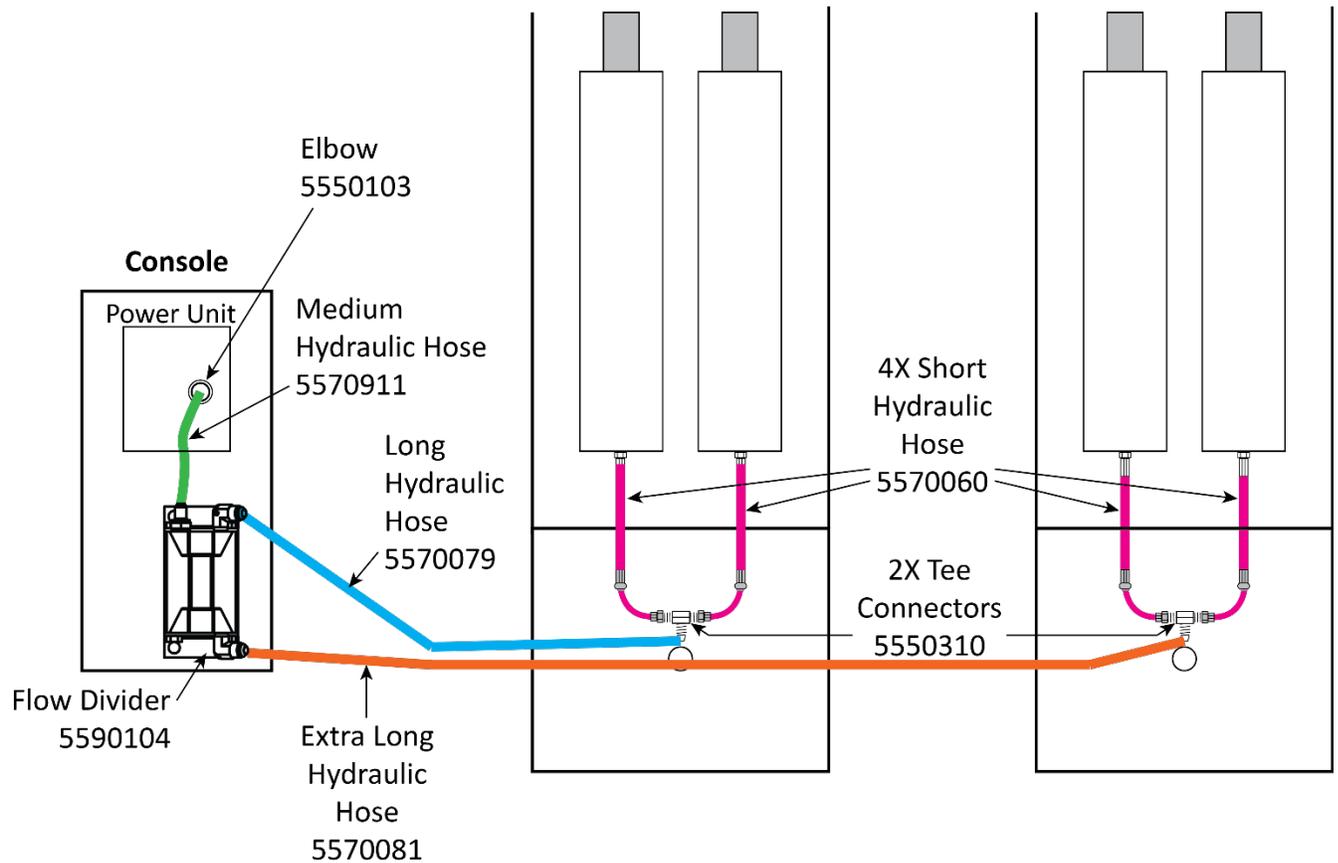
## Connect the Hydraulic Hoses

Hydraulic Hoses provide Hydraulic Fluid to the Hydraulic Cylinders, which is used to raise and lower the Platforms.

The Lift comes with seven Hydraulic Hoses:

- **Four Short Hydraulic Hoses** (10 inches / 254 mm, two per Frame Assembly) routed from the bottom of the Hydraulic Cylinders to a Tee connector.
- **One Medium Hydraulic Hose** (18 inches / 458 mm) routed from the Power Unit (inside the Console) to the **In** connector on the Flow Divider at the bottom of the Console.
- **One Long Hydraulic Hose** (87 inches / 2,212 mm): goes from the Tee connector on the Platform *closest* to the Console to one of the Out ports on the Flow Divider.
- **One Extra Long Hydraulic Hose** (139 inches / 3,552 mm): routed from the Tee connector on the Frame Assembly *furthest* from the Console to the other Out port on the Flow Divider.

The following drawing shows the general arrangement of how Hydraulic Hoses are routed to the Hydraulic Cylinders. Your Flow Divider may look differently, but it will also have one input connector and two output connectors, as shown.



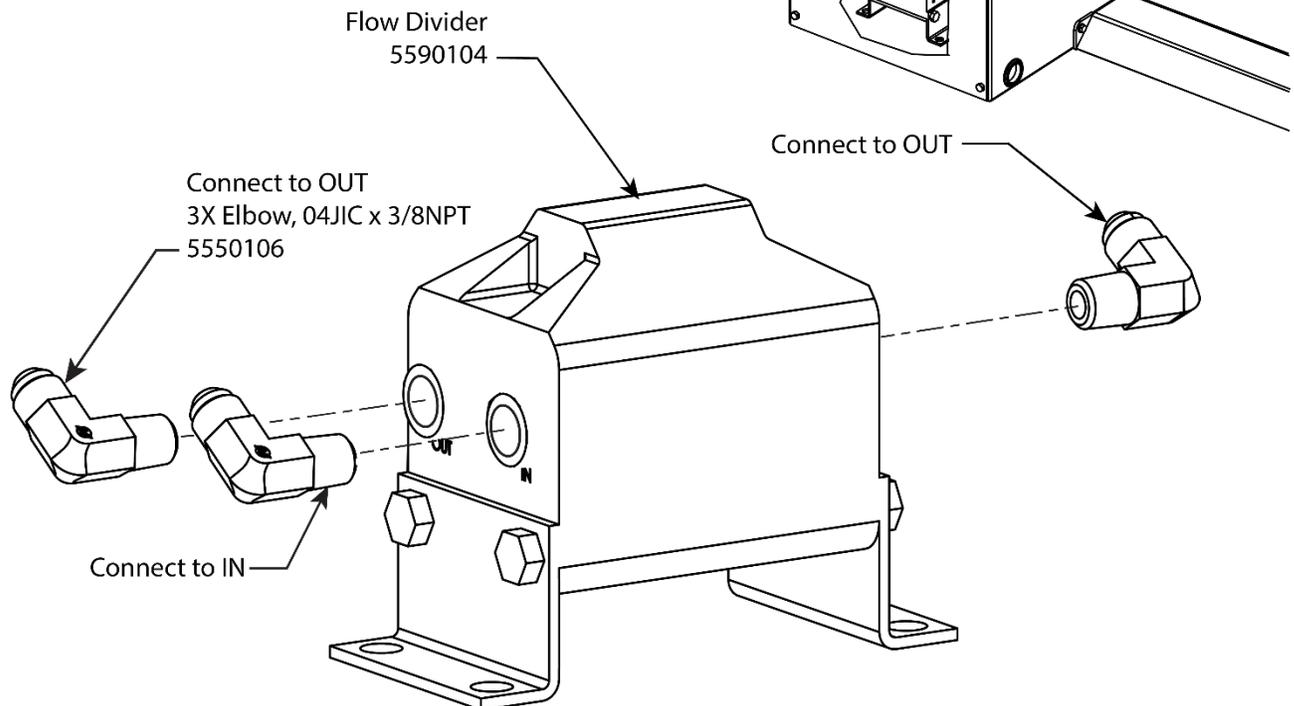
*The Console is on the Left in the drawing. Not to scale. Not all components shown. Some components exaggerated for clarity.*

## To connect the Hydraulic Hoses:

1. If the Platforms are not already engaged on their top Safety Locks, raise them now, using a Shop Crane or Forklift.

Refer to **Lift the Platforms off the Bases** for additional information.

2. If the front and top of the Console are in place, remove them.
3. Find a good location for the Flow Divider on or near the bottom of the Console. The Flow Divider need **not** be secured to the Console or the floor. See figure to the right.
4. Attach an Elbow Hydraulic Fitting (5550103) to one of the two Hydraulic Power **Out** ports on the Power Unit. Use PTFE Sealant on all fittings with NPT threads. See figure below.



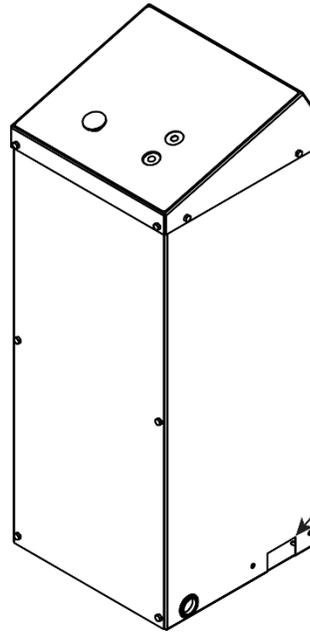
5. Locate the Medium Hydraulic Hose (18 inches, 458 mm).
6. Connect one end of the Medium Hydraulic Hose to the Elbow Hydraulic Fitting you just installed on the Power Unit and the other end to the **In** connector on the Flow Divider. Finger tighten the connections. No PTFE Thread Sealant is required for the JIC Flared Hydraulic Hose connections.

If you have trouble identifying the Power and Return Ports on the Power Unit refer to the **Connect and Prepare the Power Unit** for a diagram showing the port locations.

7. Locate the Long and the Extra Long Hydraulic Hoses.
8. Connect the Long and Extra Long Hydraulic Hoses to the two **Out** connectors on the Flow Divider. It does not matter which line connects to which output connector on the Flow Divider. Finger tighten the connections.

9. On the **MDS-6LP** and **MDS-6EXT** route the Long Hydraulic Hose through rectangular opening in the bottom of the Console and terminate it in a Tee Connector on the Frame Assembly **closest to the Console**. Finger tighten the Tee connection.

On the **MDS-6LP** and **MDS-6EXT** route the Extra-Long Hydraulic Hose through rectangular opening in the bottom of the Console and terminate it in a JIC Flare Tee on the Frame Assembly **furthest away from the Console**. Make the tee connection finger-tight.



MDS-6EXT and LP, if using the Hose Trough, route Hydraulic Hoses through this opening on the side closest to the Lift.

10. On the **MDS-6LPF** and **MDS-6EXTF** feed the long and extra-long Hydraulic Hoses through the conduit in the Concrete to the Frame assemblies. Route the Long Hose with a Tee at the closest Frame Assembly. Feed the Extra-Long Hose through the Conduit between the Frame Assemblies. Route the Extra-Long Hydraulic Hose to the Tee at the Frame Assembly furthest from the Console.
11. Remove the shipping plugs from the bottom of all four Hydraulic Cylinders. Have some rags at hand. There may be residual oil in the cylinder.
12. Retrieve the Short Hydraulic Hoses (10 inches / 254 mm) Connect the 3/8 NPT end to the bottom of the Cylinder using the PTFE Thread Sealant.
13. Connect the Elbow end of the Short Hydraulic Hose with the 7/16 JIC Flare to the Tee. Make finger-tight.
14. Connect the other three Hydraulic Cylinders and Hoses in the same manner.
15. Once all connections have been made, use appropriate tools to fully tighten all of the connections. Be systematic. Start at one end and work your way through without missing any of the Hydraulic Fittings.

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## 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 and Return Line (Cylinder Vent).

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

The components involved with Compression Fittings include:

- **¼ inch, black, polyethylene Tubing.** The Air Lines and Return 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 two Elbow Compression Fittings.
- **Straight Compression Fittings.** The Return Lines use four Straight Compression Fittings.
- **Tee Compression Fittings.** The Air Lines use one Tee Compression Fitting; the Return Lines use three Tee Compression Fittings.
- **Nuts, Ferrules, Rods, and Threads.** Many of the connectors on the Elbow, Straight, 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 is 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 Ferrule then over the Rod.  
Do not push hard; you only need the Tubing to go a little way over the Rod. You cannot see the Ferrule at this point, but the Tubing must go through the Ferrule and over the Rod.
2. Slide the Nut on the Tubing ***away from the Fitting***, if the Nut is still on the Threads, unscrew it from the Threads and then slide it away from the Fitting. See the drawing above.
3. Slide the Ferrule over the Tubing, away from the Fitting and towards the Nut.
4. With the Nut and the Ferrule out of the way, push the Tubing further over the Rod until it stops.
5. Slide the Ferrule and the Nut back to the Threads on the Fitting.  
The Ferrule goes around the Rod and under the Threads. The Nut goes onto the Threads.
6. Tighten the Nut.

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

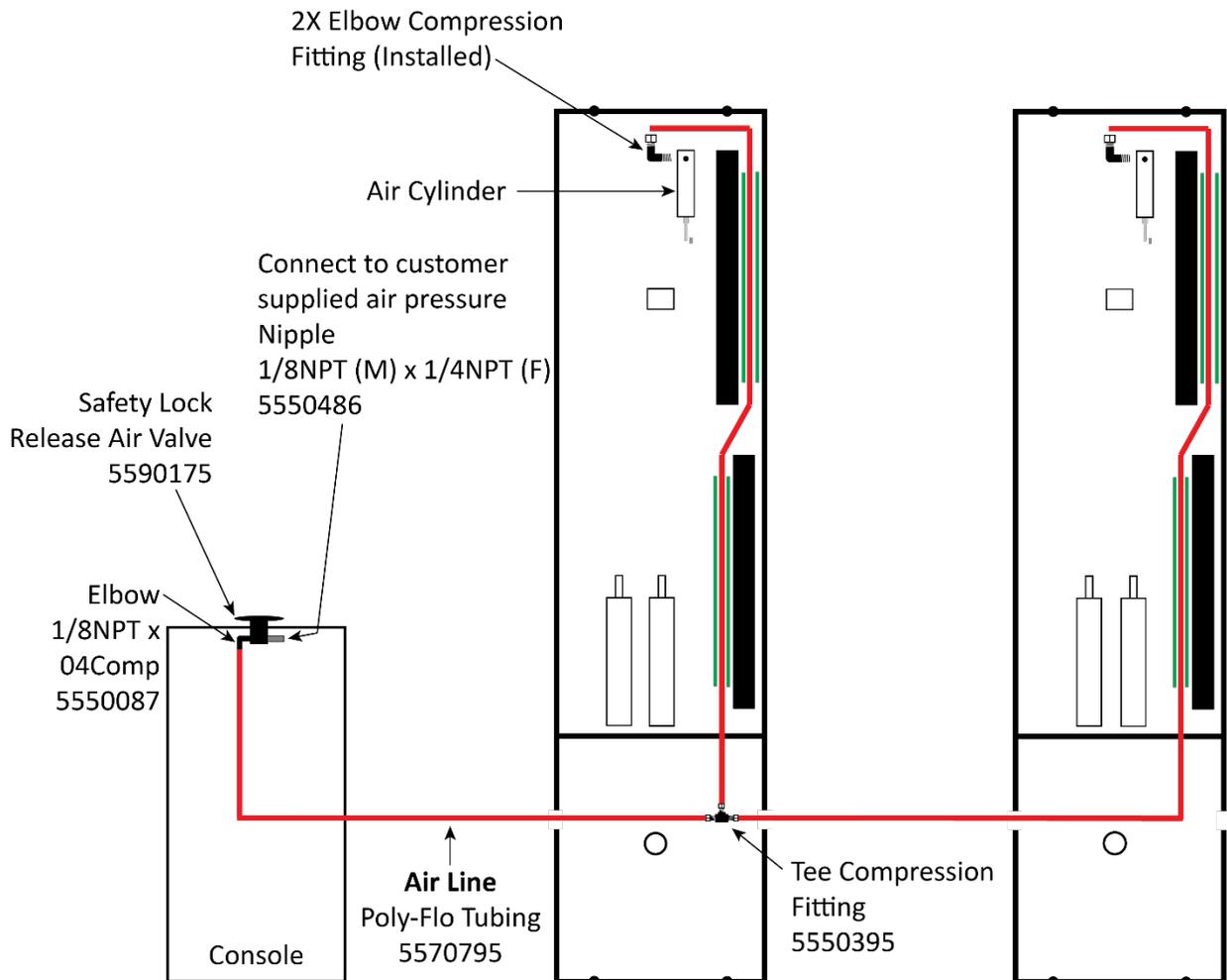
## Connect the Air Lines

The MDS-6 Series Lifts must be raised off the Safety Locks using Hydraulic Power, then air pressure is used to release the Safety Locks so you may lower the Platforms.

***It is the responsibility of the Lift owner to provide an air pressure supply (minimum 50 psi / 10 CFM, regulated to a maximum of 125 psi).***

The air pressure supply is distributed to the Air Cylinders using ¼ inch diameter black, plastic Tubing (also called Poly-Flo® Tubing), which is supplied with the Lift. You need to cut the Tubing into appropriate lengths based on the distance between the components you are connecting.

The following drawing shows how to route the Air Line. **MDS-6LPF** and **MDS-6EXTF** will have to feed the Air Line through the conduits to the Lift Platforms.



*Not to scale. Not all components shown.*

## To connect the Air Lines:

1. Locate one ¼" Tee Compression Fitting, and the black ¼" Air Tubing.
2. Air lines may be routed together with the Hydraulic Lines. Measure and cut the Tubing into appropriate lengths for your installation. One length from the Console to the first Lift Frame where a Tee branches the air off to the first Lift Frame Air Cylinder and also to the second Lift Frame Air Cylinder.

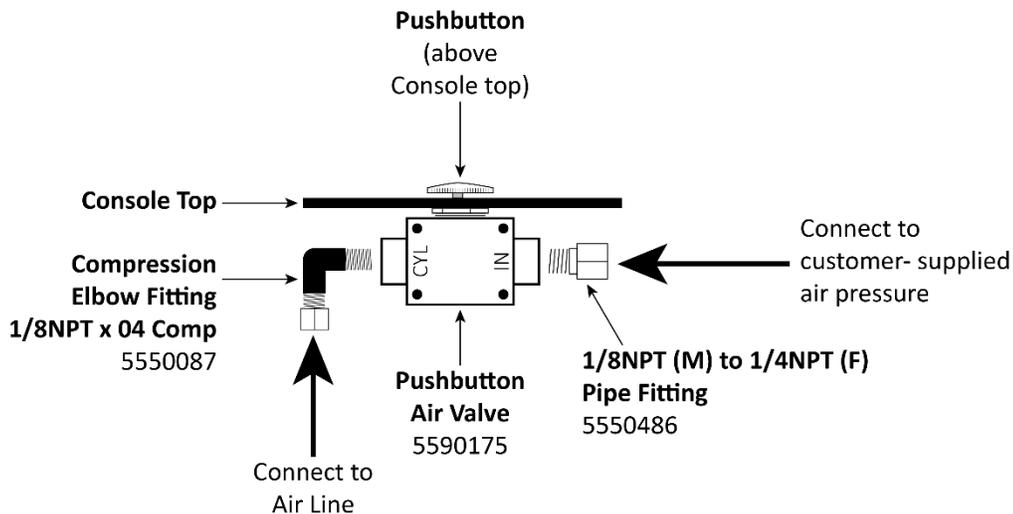


**Tip** BendPak recommends planning out the path of the Air Line **before** you start cutting the Tubing.

3. Feed the Air Line tubing from the Console to the First Lift Frame.
4. Connect a tee to the end of the tubing from the Console.
5. Connect Tubing lengths from the Tee Fitting to the Tubing Fitting coming from the Air Cylinders in both Lift Frames.

To get to the Air Cylinders, the Tubing is routed along the Scissor arms of the Lift. The Scissor arms have tubes through which you route the Poly-Flo Tubing, which protects them as you raise and lower the Lift.

6. Retrieve the Console Top. 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. The threads on the valve itself are 1/8-27NPT and require PTFE thread sealant.
7. 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. This is an 1/8-27NPT thread that requires PTFE Thread Sealant.
8. Connect the customer-supplied air pressure to the other end of the Straight Fitting this is a Female ¼-18 NPT fitting requiring PTFE Sealant as well.



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

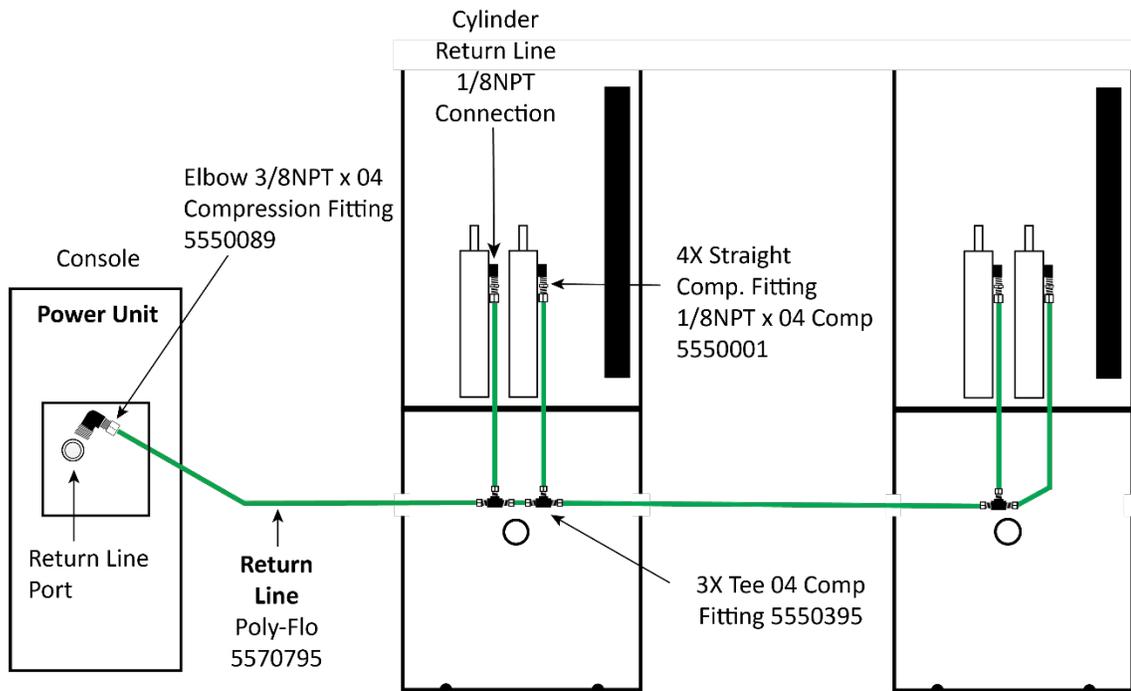
## Connect the Return Lines

The Return Line returns Hydraulic Fluid from the Hydraulic Cylinders to the Power Unit's Hydraulic Fluid Reservoir.

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

**Important:** The Air Line and the Return Line use the same ¼ inch, black, polyethylene Tubing. Be sure not to confuse the two; the Air Line and the Return Line do completely different things and **must** be kept separate from each other. The Return Lines may be marked with tape to positively identify them.

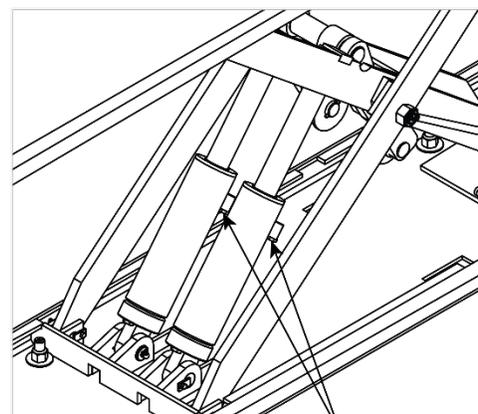
The following drawing shows how the Return Line is routed.



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

### To connect the Return Line:

1. Locate three Tee Compression Fittings, four Straight Compression Nipples (¼ Comp to 1/8-27NPT), and the black ¼" Air Tubing.
2. Remove the plastic shipping plug in the Cylinder Return Ports (Cylinder Vents) on all four cylinders.
3. Use PTFE Sealant on all NPT threads and connect the NPT end of the four Straight Compression Fittings to the Return Ports on the Lift Cylinders in the Left and Right Lift Frames and tighten.



Remove the four plastic shipping plugs from the Cylinder Return Ports

4. Attach an Elbow Compression Fitting with a 3/8 NPTF to one of the Return Line Ports (Cylinder Vent) on the Power Unit.  

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

See **Connect and Prepare the Power Unit** for the Return Line Port locations.
5. Cut tubing sections of the appropriate lengths for the Return Line segments.
6. Connect the tubing sections using the three Tee Compression Fittings, as shown above.

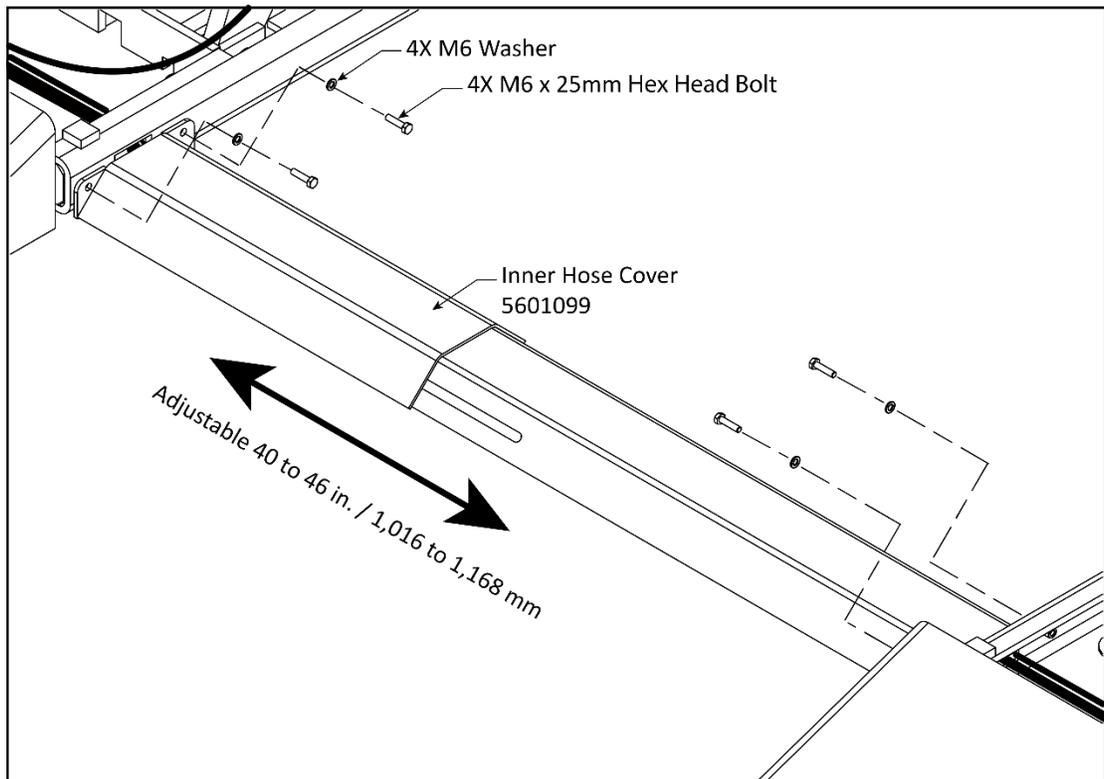
## Install the Inner Hose Cover (MDS-6EXT and MDS-6LP Only)

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

### To install the Inner Hose Cover:

1. Retrieve the Inner and Outer Hose Covers, eight M6 x 25mm Hex Head Bolts and eight M6 Flat Washers from the Parts Box.  

The Inner Hose Cover is adjustable to account for the variable distance between the Lifting Platforms. The Outer Cover is not adjustable.
2. Cover the Hydraulic Hose and Air Line between the Frames with the Inner Hose Cover. Adjust the Cover length as shown to the right, then secure with four M6 x 25 Hex Head Bolts and Washers.

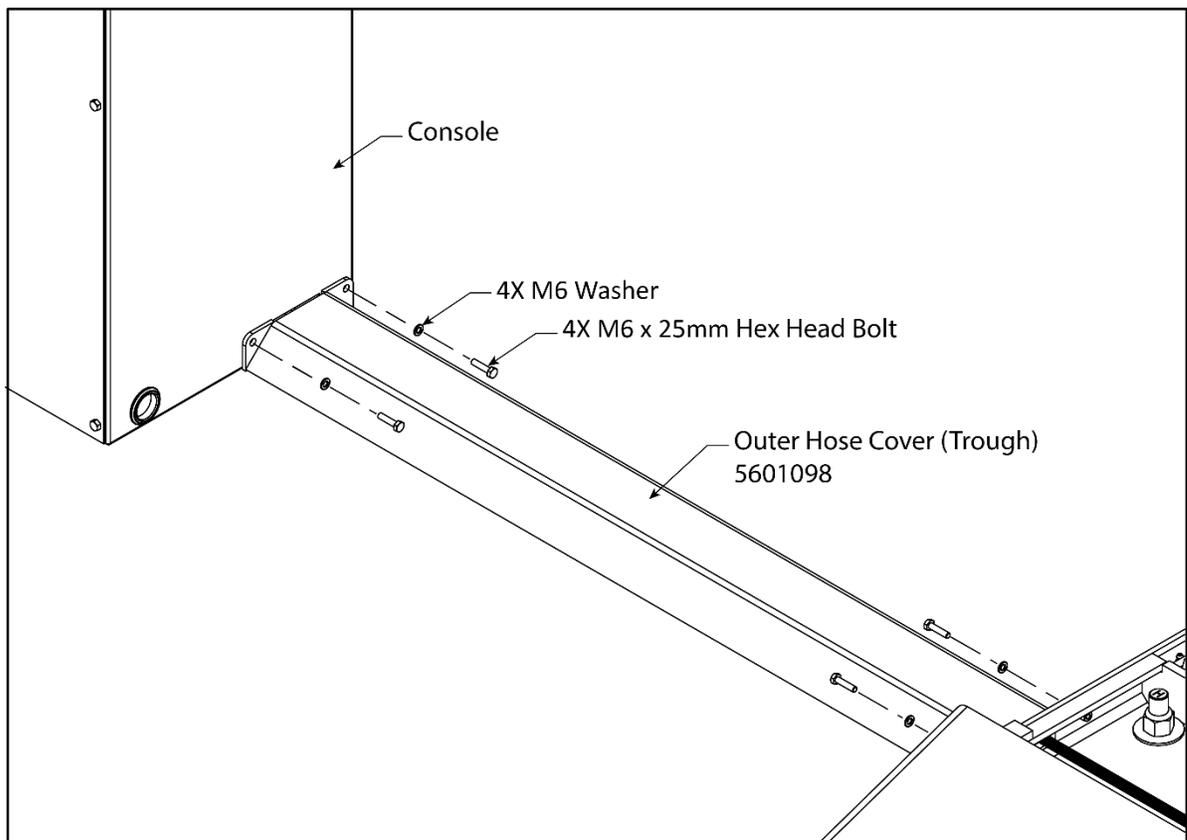


## Install the Outer Hose Cover (MDS-6EXT and MDS-6LP Only)

The Outer Hose Cover measures 40.25 in. / 1,022 mm long and is not adjustable for length.

### To install the Outer Hose Cover:

1. Retrieve the Outer Hose Cover, four M6 x 25 mm Hex Head Bolts, and four Washers from the Parts Box.
2. Install the Outer Hose Cover between the Console and the Lifting Platform covering the Hydraulic Hoses and Air Line.
3. Secure the Cover using the four M6 x 25mm Hex Head Bolts and M6 Washers you retrieved earlier. The Console is shown below mounted on the Left side of the Lifting Platforms, but it may also be mounted on the right side.



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## Contact the Electrician

The following tasks 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:

- **Attach a Power Cable with an appropriate plug.** The Power Unit needs to connect to an appropriate power source; it comes with a pigtail exiting the Electrical Box, but without a longer power cable or a plug attached. The Electrician needs to *remove* the pigtail and then connect a NEMA rated power cable with a plug that is appropriate for your location (220 VAC plugs are different in different parts of the world). ***This power cable and plug is not provided with the Lift.*** Alternatively, the Electrician could connect the power unit directly into the facilities' electrical system protected by a 25 Amp Circuit Breaker.
- **Install a Power Disconnect Switch.** Ensures you can quickly and completely interrupt electrical power to the Lift in the event of an 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.** 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 NEMA rated plug for connecting to the power source, or appropriately connecting into the facility power adhering to all National and Local Electrical Codes.
- a Power Disconnect Switch accessible and within sight of the operator.
- a Thermal Disconnect Switch (the Power Unit's motor is **not** thermally protected) conforming to all National and Local Electrical Codes.

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

Additional information is supplied in the section describing these tasks.

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## Connect and Prepare the Power Unit

The Power Unit comes assembled from the factory. You need to attach it to the back of the Console (described in [Assemble and Anchor the Console](#)) and then connect it properly, described in this section.

The standard Power Unit for your Lift is 230 VAC 1Ph. at 50/60 Hz, or 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 Diagram](#) for wiring information.

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

The Power Unit has multiple connections:

- **Hydraulic System.** The Medium Hydraulic Hose connects one of the two Hydraulic Power Out ports on the Power Unit to the Flow Divider (and eventually to the Hydraulic Cylinders). Connected earlier.
- **Return Line.** Takes Hydraulic Fluid from the Hydraulic Cylinders and returns it to the Reservoir. Connected earlier.
- **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 (the Raise and Lower buttons).

### To connect and prepare the Power Unit:

1. Remove the front cover of the Console if it is currently in place.
2. For the Raise and Lower buttons on the Console, the wiring comes from the factory connected to the appropriate button. Simply connect them mechanically to the Console.
3. For the connection to the Hydraulic System, the Power Unit should already be connected to the **IN** connector on the Flow Divider via the Medium Hydraulic Hose.

**If it is not**, attach an Elbow Hydraulic Fitting to a Hydraulic Power Out connector on the Power Unit, connect the Medium Hydraulic Hose to this Elbow Hydraulic Fitting, and then connect the other end of the Medium Hydraulic Hose to the **IN** (input) connector on the Flow Divider.

4. For the Return Line, the Return Line should already be connected to one of the two Return Line Ports on the Power Unit and the tops of the Hydraulic Cylinders on the Lift.

**If it is not**, see [Connect the Return Line](#) for more information.

5. For the power source, the Electrician needs to 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.

This power cord and plug are **not** supplied with the Lift.

Refer to [Wiring Diagram](#) for proper wiring information.

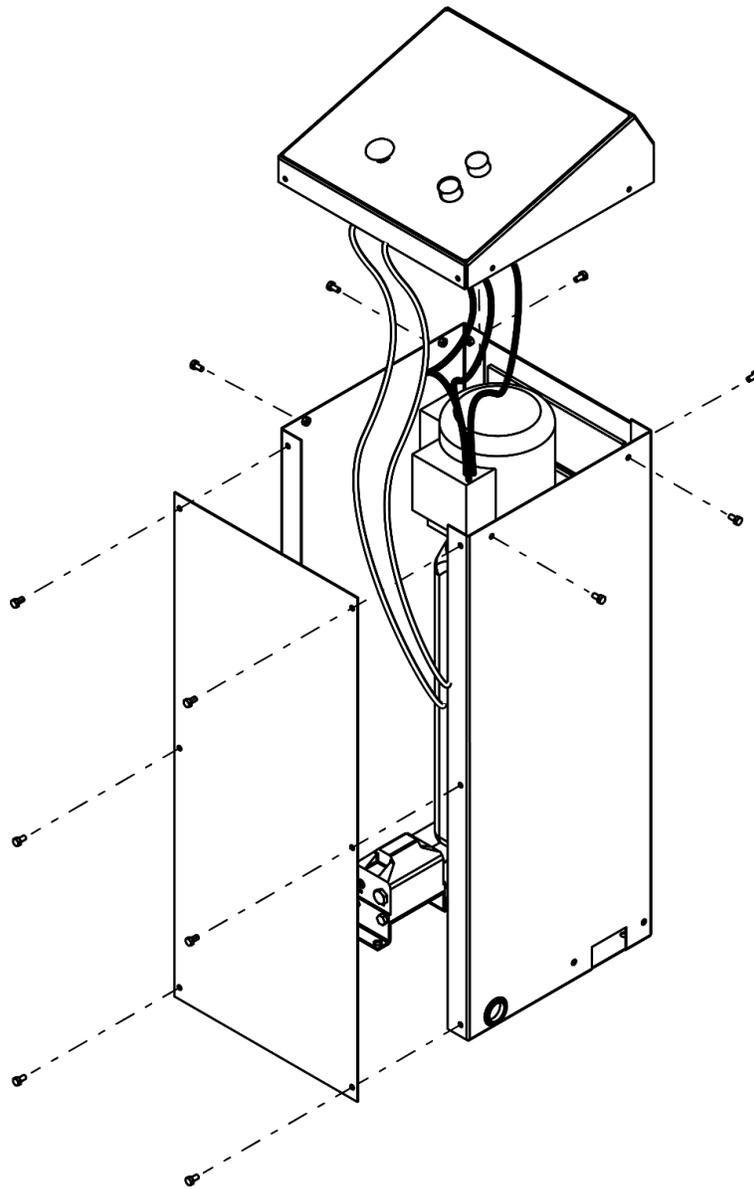
**⚠ DANGER**

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 circuit Breaker or fuse

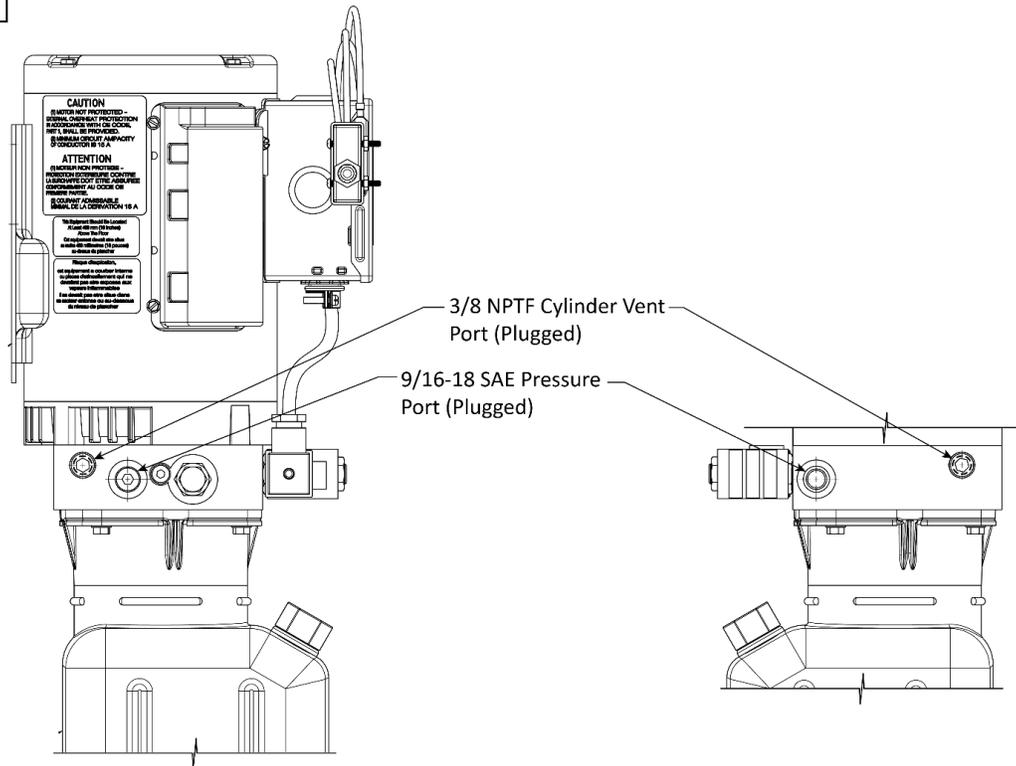
Refer to the power unit diagram on the following page for Hydraulic Input and Output ports.



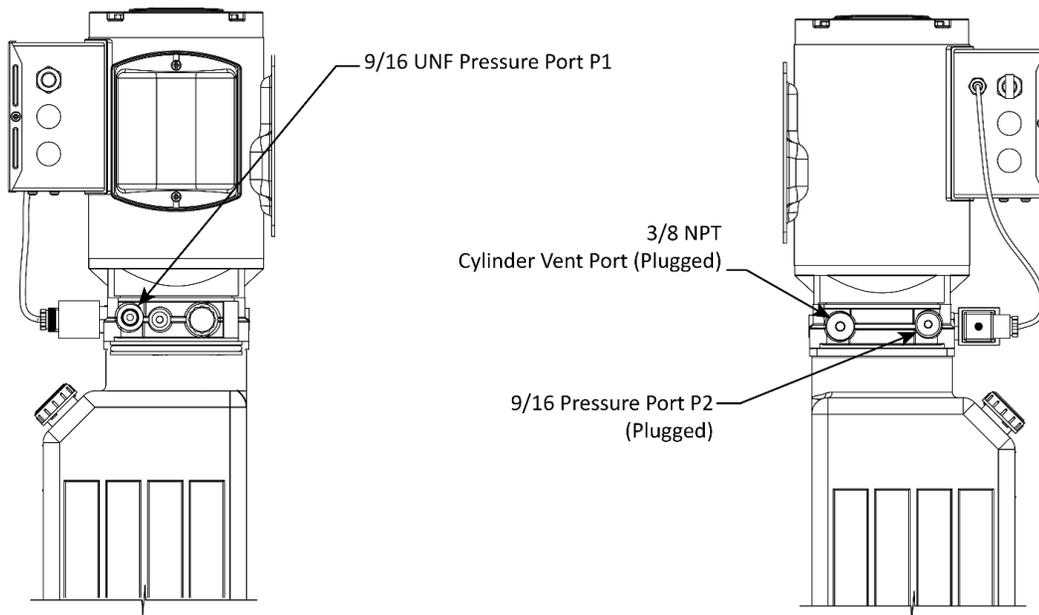
*Drawing not to scale. Not all components shown.*

## Power Units - Power Ports and Return Ports Location

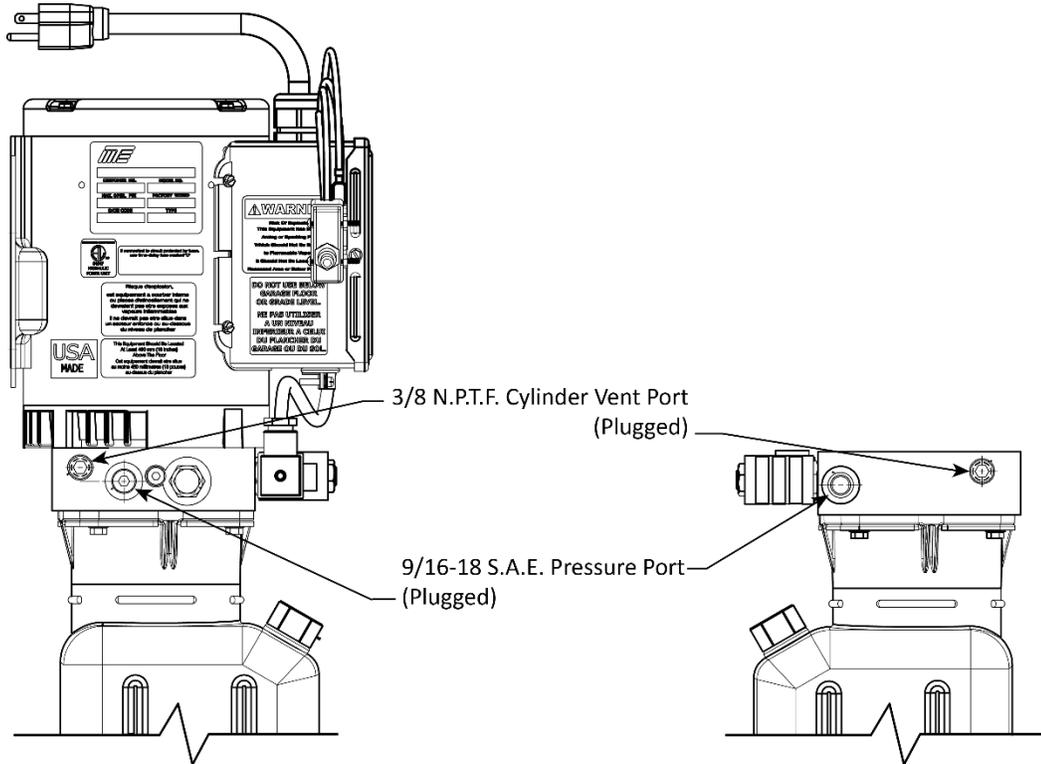
**5585367**



**5585019**



5585002



## Fill the Hydraulic Fluid Reservoir

The Hydraulic Fluid Reservoir on the Power Unit must be filled with Hydraulic Fluid or automatic transmission fluid **before** you begin normal operation of the Lift. **When you receive the Lift, the Hydraulic Fluid Reservoir is empty.**

The Power Unit will not work correctly until the Reservoir is filled with approved Hydraulic Fluid.

Approved fluids are any general purpose ISO-32, ISO-46, or ISO-68 Hydraulic Fluid, approved automatic transmission fluids such as Dexron III, Dexron VI, Mercon V, Mercon LV, or any synthetic multi-Vehicle automatic transmission fluid.

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

### To fill the Hydraulic Fluid Reservoir:

1. Remove the Reservoir Cap from the top of the Hydraulic Fluid Reservoir and set it aside.  
Take care to **keep contaminants out** of the Hydraulic Fluid Reservoir.
2. If the Hydraulic Fluid Reservoir is not full, fill it with approved fluid.  
The Reservoir holds approximately 1.5 gallons / 6 liters of Hydraulic Fluid.
3. When the Reservoir is filled, put the Reservoir Cap back on.

**Important:** Typically the Platforms are up on the first Safety Lock at this point. Be aware that you will need re-fill the Reservoir during the **Operational Test**. The Cylinders and Hydraulic Hoses will take up a considerable amount of fluid. If you have installed longer hoses, then more than the specified 1.5 gallons will be required.

---

## Install a Power Disconnect Switch

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

A Power Disconnect Switch is a National Electrical Code (NEC) requirement. They are designed to interrupt main electrical power in the event of an electrical circuit fault, emergency 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 your Electrician.

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

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

## Install a Thermal Disconnect Switch

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

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

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

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

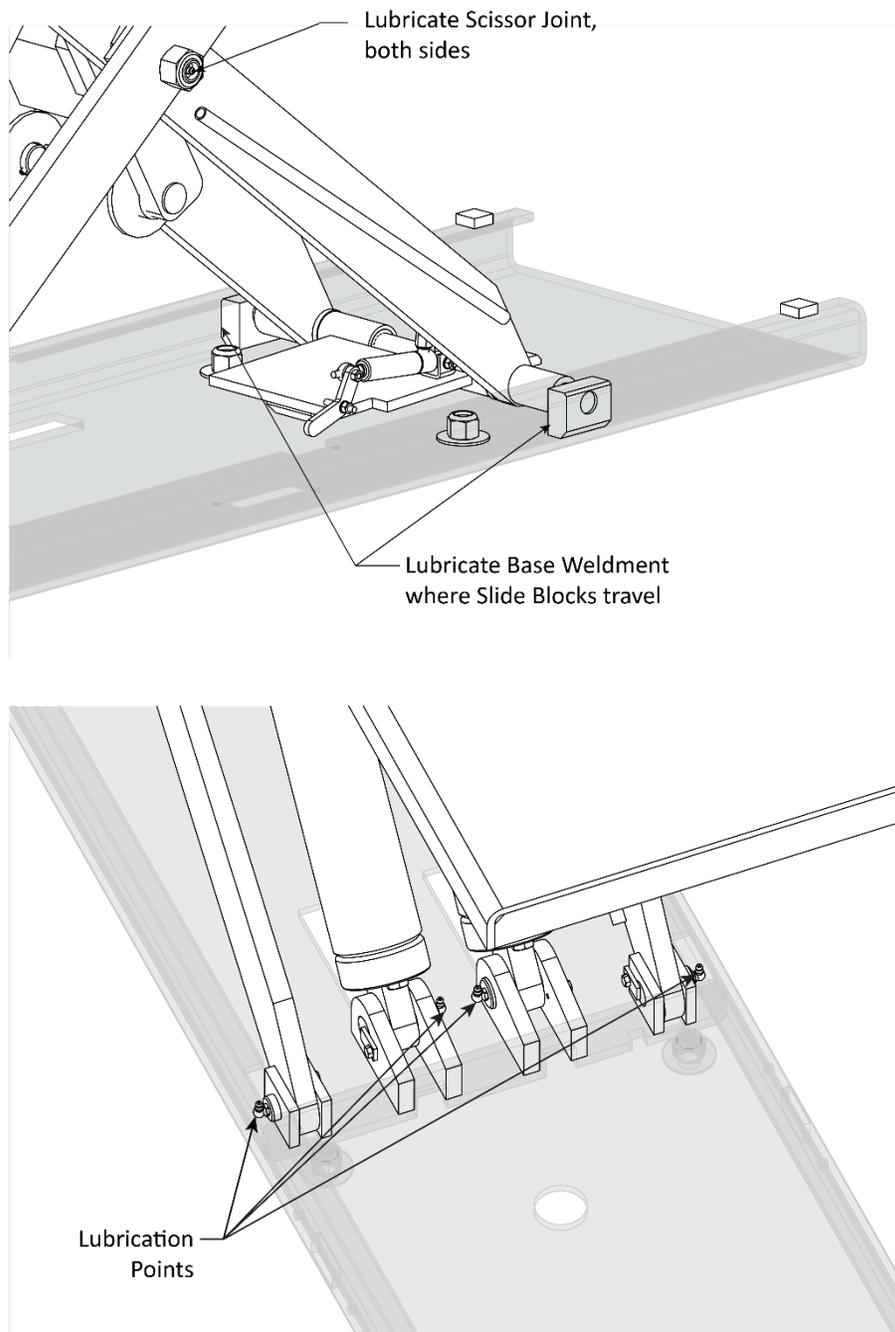
BendPak strongly recommends you **not** exceed the rated duty cycle of the motor.

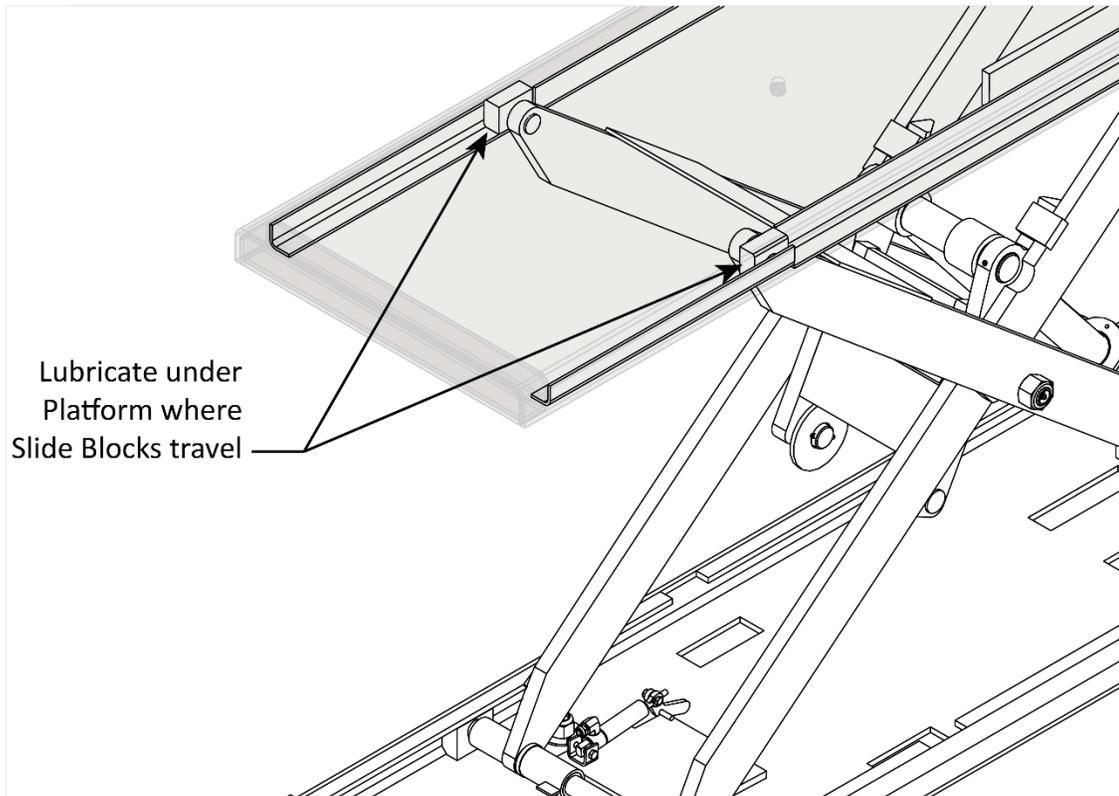
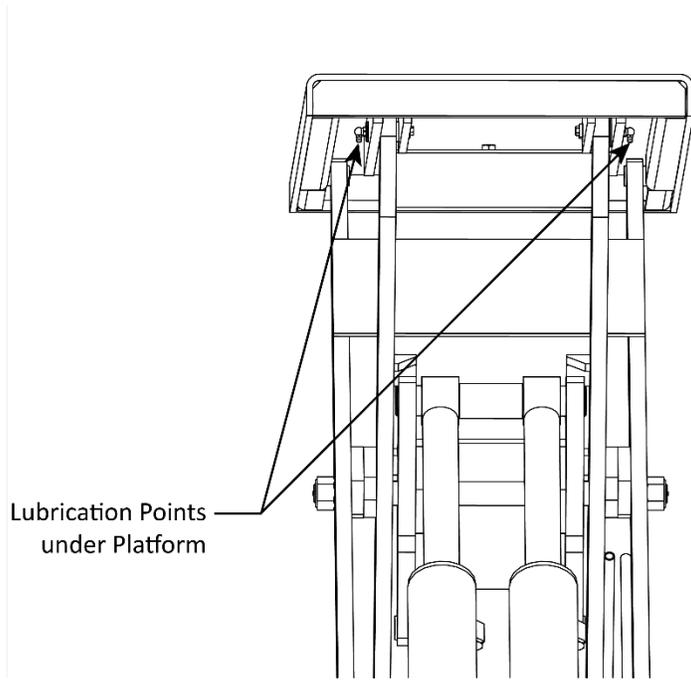
## Lubricate the Lift

There are 12 Lubrication areas on each Lift Frame:

- **Two Lubrication points that use Straight Grease Fittings**, at both Scissor Joints, both are M6 x 1.0 Straight Grease Fittings.
- **Six lubrication points with Elbow Grease Fittings**. All six are M6 x 1.0 90° Elbow Grease Fittings at the base of the Cylinders.
- **Two Lubrication areas along the Base Weldment** where the Slide Blocks travel only.
- **Two Lubrication areas under the Platform** where the Slide Blocks travel only.

Use a small amount of White Lithium Grease or similar on each Lubrication Point before you use the Lift and monthly after putting the Lift into service. Refer to the figures below for the Lubrication areas.





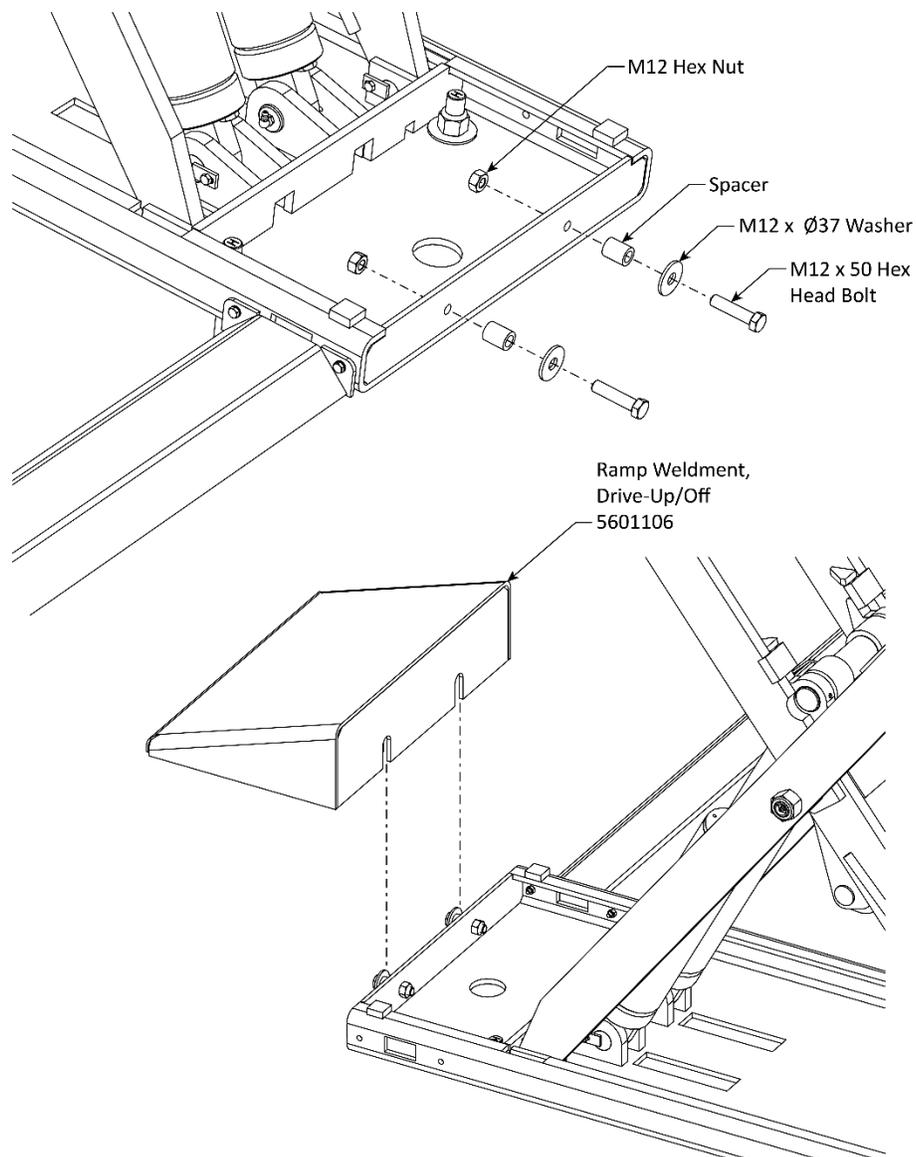
## Add the Drive-Up Ramps (MDS-6LP and MDS-6XLT Only)

The MDS-6EXT and MDS-6LP both come with four Drive-up Ramps: two are installed on the front of the Lift and two on the rear. They are identical parts. The flush-mount versions of the MDS-6 do not include Ramps.

All four Ramps attach by simply dropping onto a Bolt-Washer-Spacer assembly as shown below. The Ramps are designed to be easily removed and float on the bolt assembly at the front and rear of each Base Assembly.

### To Install the Drive-Up Ramps:

1. Retrieve from the Parts Box the four Ramps, eight M12 x 50 mm Hex Head Bolts, eight M12 x Ø37 mm Washers, eight Ramp Spacers and eight M12 Hex Nuts.
2. Secure the Hex Head Bolts, Washers and Spacers to the Front and Rear of each Base Assembly using the Hex Nuts as shown below.
3. Place the Drive-Up Ramp Weldment over each bolt assembly as shown below.



*Drawing not to scale. Not all components shown.*

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## Anchor the Console

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

Refer to **Assemble and Anchor the Console** for instructions.

Install the Console Cover and secure with the eight M6 Hex Head Bolts.

## Perform an Operational Test

 **WARNING** Before applying power to the Hydraulic system, **always** double check all Hydraulic connections are tight, including fittings, hoses, and auxiliary port plugs.

 **WARNING** Never replace any factory-supplied part with aftermarket or non-OEM part.

Before putting your Lift into normal operation, you need to raise and lower it a few times. This will help provide a feel for how to operate the system, ensures it is working correctly, and helps get any residual air out of the Hydraulic System. The Hydraulic System is self-bleeding.

**Important:** The installation of the Lift is not complete until the Lift passes an Operational Test.



**Tip**

Residual air in the Hydraulic System can cause the Lift to shake, move erratically, or squeak; this is normal. If this occurs, do not worry; it will go away quickly as the Hydraulic System purges the air in a self-bleeding process.

A Vehicle on the Lift is not required for the Operational Test, but it is recommended.

### To perform an operational test of your Lift:

1. Check the area around and above the Lift for obstructions; move them if you find any.
2. Press and hold **Raise**. The Platforms start rising.
3. When the Platforms go past a Safety Lock (you can hear the mechanism click as it passes), release **Raise**. The Platforms stop rising.
4. Press and hold **Lower**. The Platforms lower onto the Safety Lock you just passed.
5. Look for Hydraulic Fluid leaks. Repair any leaks and clean Hydraulic Fluid off of the floor and surfaces.
6. Check the Hydraulic Fluid Reservoir. The level should be low as the cylinders and hoses have been filled during this initial run. Remove the cap and fill the reservoir, but do **not** top off the reservoir. Fill to about ½ full.

 **WARNING** If you over-fill the Reservoir while the Platform is raised on a Safety Lock, excess fluid will overflow the Reservoir when you return the Lift to the ground.

If you over-fill the Reservoir while the Platform is raised on a Safety Lock, excess fluid will overflow the Reservoir when you return the Lift to the ground.

7. Replace the reservoir cap after filling to  $\approx$ ½ full.
8. Press Raise for a few seconds to raise the Platform off the safety lock a small amount.
9. To fully lower the Platforms, press and hold the **Safety Lock Release Button** (to disengage the Safety Lock), then press and hold **Lower**. The Platforms will begin to lower.

- 
10. When the Platforms get to the ground, hold **Lower** for a couple of more seconds to make sure both Platforms are fully lowered, then release **Lower**.
  11. Wait for one minute.

 **WARNING** The Power Unit cannot be run continuously. The motor is not rated for continuous duty.

12. Check the Hydraulic Fluid Reservoir to verify that it is full. Add Hydraulic Fluid as required.
13. Repeat the process, this time raising the Lift higher and then lowering it.
14. If the Lift is working without shaking, moving erratically, or squeaking, it is ready for operation.

If the Lift is shaking, moving erratically, or squeaking, repeat the procedure. It may take a few up and down cycles to completely purge the air from the system.

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

## Final Checklist before Operation

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

- 1. Review the **Installation Checklist** to make sure all steps have been performed.
- 2. Verify the Power Unit is getting power from the power source.
- 3. Check the Power Unit's Hydraulic Fluid Reservoir; it must be full of approved Hydraulic Fluid.

 **WARNING** ***You can damage the motor by running it without enough fluid.***

- 4. Check the Hydraulic System for leaks
- 5. Verify all Auxiliary Port Plugs on the Power Unit, the Flow Divider and Cylinders are tight.
- 6. 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 [support@bendpak.com](mailto:support@bendpak.com), visit [bendpak.com/support](http://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. Make sure you know and use the manufacturer's recommended lifting points for the Vehicle. Never raise just one side, one corner, or one end of a Vehicle.

## The Console

Operation of the Lift is controlled via the Console.

The controls on the Console are:

- **Raise** button. Raises the Platforms.
- **Lower** button. Lowers the Platforms.



- 
- **Safety Lock Release** button. Releases the Safety Locks so the Platforms can be lowered. If you do not press the Safety Lock Release button 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.

Before raising any vehicle, read, understand and follow the instructions and warnings in this manual and on the Lift labelling.

- **Never** exceed the rated capacity of this Lift, 6,000 lbs. / 2,722 kg
- **Never** exceed the Maximum load of 3,000 lbs. / 1,361 kg. per Lift side.
- **Always** center the load evenly.
- **Do not** operate the Lift if any component is found to be defective or worn.
- **Never** operate the Lift with any person or equipment under the Lift.
- **Always** ensure the Vehicle is centered and stable prior to operating the Lift controls.
- **Always** verify the Safety Locks are engaged before working on or near any Vehicle.
- **Never** leave the Lift in an elevated position unless the **Safety Locks** on **both** platforms are engaged.
- **Never** attempt to work on or near a vehicle when it is raised on the scissors unless the Safety Locks are engaged.
- Do **not** permit the Power Unit to get wet. The motor can be damaged and water damage is not covered under the product warranty.

 **WARNING** Always allow a minimum of 2-seconds delay between motor starts. Failure to comply may cause switch and/or Motor burnout. This could cause serious damage to the equipment and/or personal property.

### To raise a Vehicle:

1. Check the items listed in **Lift Operation Safety**.  
If you find any issues, resolve them before raising the Vehicle.
2. Make sure both Platforms are fully lowered.
3. Drive the Vehicle onto and completely over the Platforms, positioning the Vehicle's Center of Gravity roughly over the center of the Platforms.

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

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

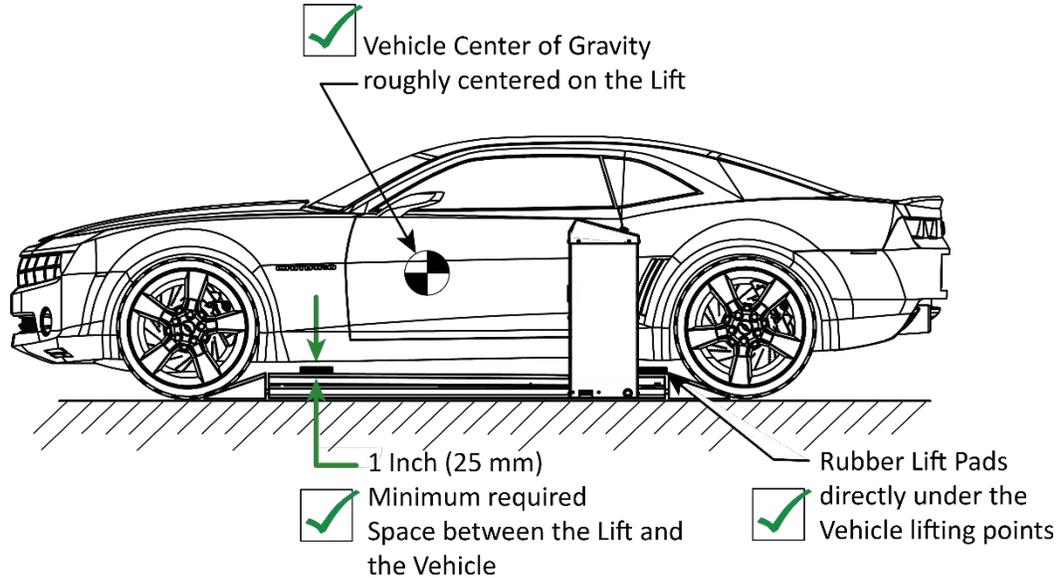
If the Vehicle is a manual transmission, put it into first gear before turning it off and setting the brake. You do not want the Vehicle moving while it is raised on the Lift.

5. Get out of the Vehicle and verify the wheels are off the Platforms and place appropriate sized Lift Pads directly under the lifting points for your Vehicle with at least one inch of open space between the Vehicle and the Lift Pad.

***Only raise a Vehicle if the Platforms are positioned under the lifting points.***

If any part of the Vehicle's lifting points are not completely over the Platform, carefully drive the Vehicle back off the Lift and then drive it back on to reposition it, making sure to keep the wheels in the middle of the Platforms.

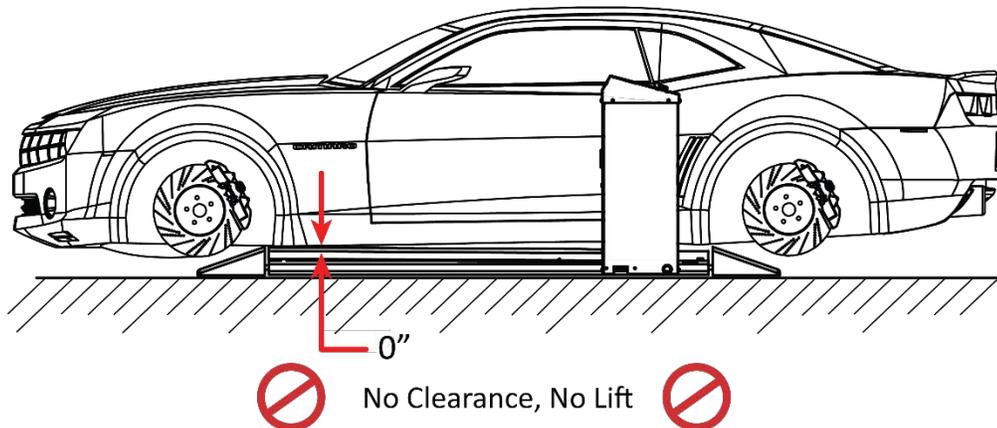
**WARNING** You must use the Vehicle manufacturer's recommended Lifting Points. If you fail to do so, the Vehicle may become unstable and fall off the Pads and/or the Lift which could damage the Vehicle, the Lift or injure or kill anyone under the Vehicle.



**WARNING** **Before** raising a Vehicle, verify there is at least 1 inch (25.4 mm) of clearance between the Lift Pads and the Vehicle. The Lift cannot raise a full load from a completely flat starting position, and attempting to lift in this manner will damage the Lift and could injure persons nearby.

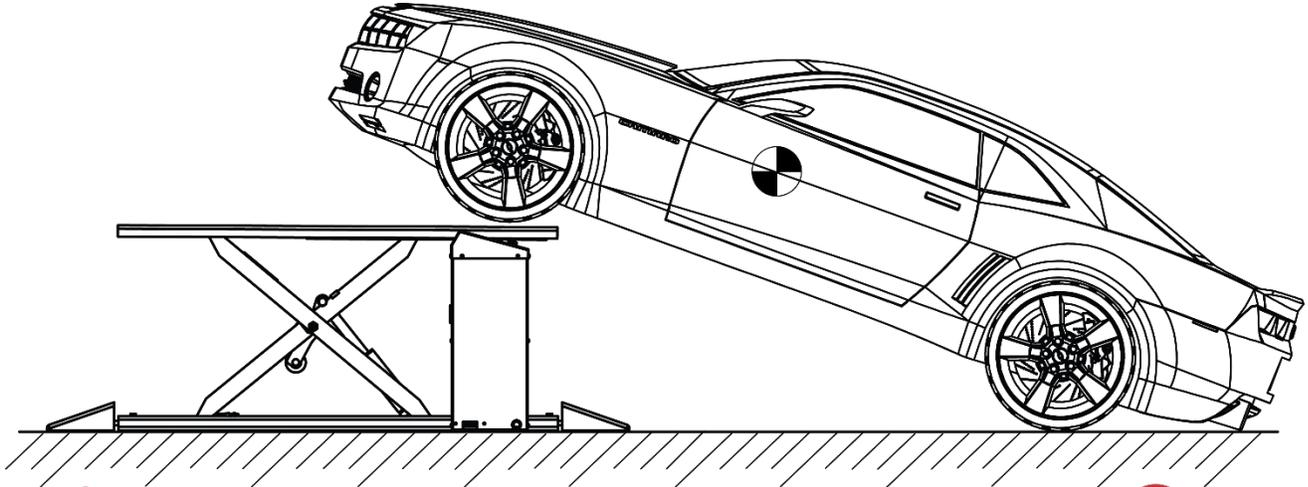
**WARNING** **NEVER** lower a vehicle all the way to the floor with the wheels removed. **Failure to comply with these instructions will void the product warranty.** Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

Refer to the **Troubleshooting Section** for further information.



6. 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 and the Vehicle. Pay careful attention to overhead clearances. If there are any obstructions, remove them before raising the Vehicle.

**⚠ WARNING** **Never** lift a Vehicle with the center of gravity shifted off the Lift Platforms.



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

7. At the Console, press and hold the **Raise** button until the Rubber Pads come into contact with the Vehicle's lifting points. Release the **Raise** button, and walk around the Vehicle again to verify the lifting points are securely engaged on the Rubber Pads. Verify the Vehicle is stable and balanced on the Lift Pads.

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

**⚠ WARNING** Always allow a minimum of two-seconds delay between motor starts. Failure to comply may cause switch and/or Motor burnout. This could cause serious damage to the equipment and/or personal property.

8. If the Vehicle is secure, press the **Raise** button. Watch the Vehicle and the Lift as they rise.  
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.
9. When the Platforms are slightly past the desired height, release the **Raise** button.
10. Press the **Lower** button briefly to move the Lift down onto the most recently passed Safety Lock. **Always ensure all Safety Locks are engaged** before entering the work area.



**Tip**

If you move the Lift too far past a Safety Lock, it will not engage when you press **Lower** briefly. If this happens, move the Lift back up again, going a little less past the Safety Lock, and then lower it back down onto the Safety Lock.

**⚠ DANGER** Do **not** go under the Vehicle until you have confirmed that both the Lift Platforms are resting on a Safety Lock at the same height.

## About Safety Locks

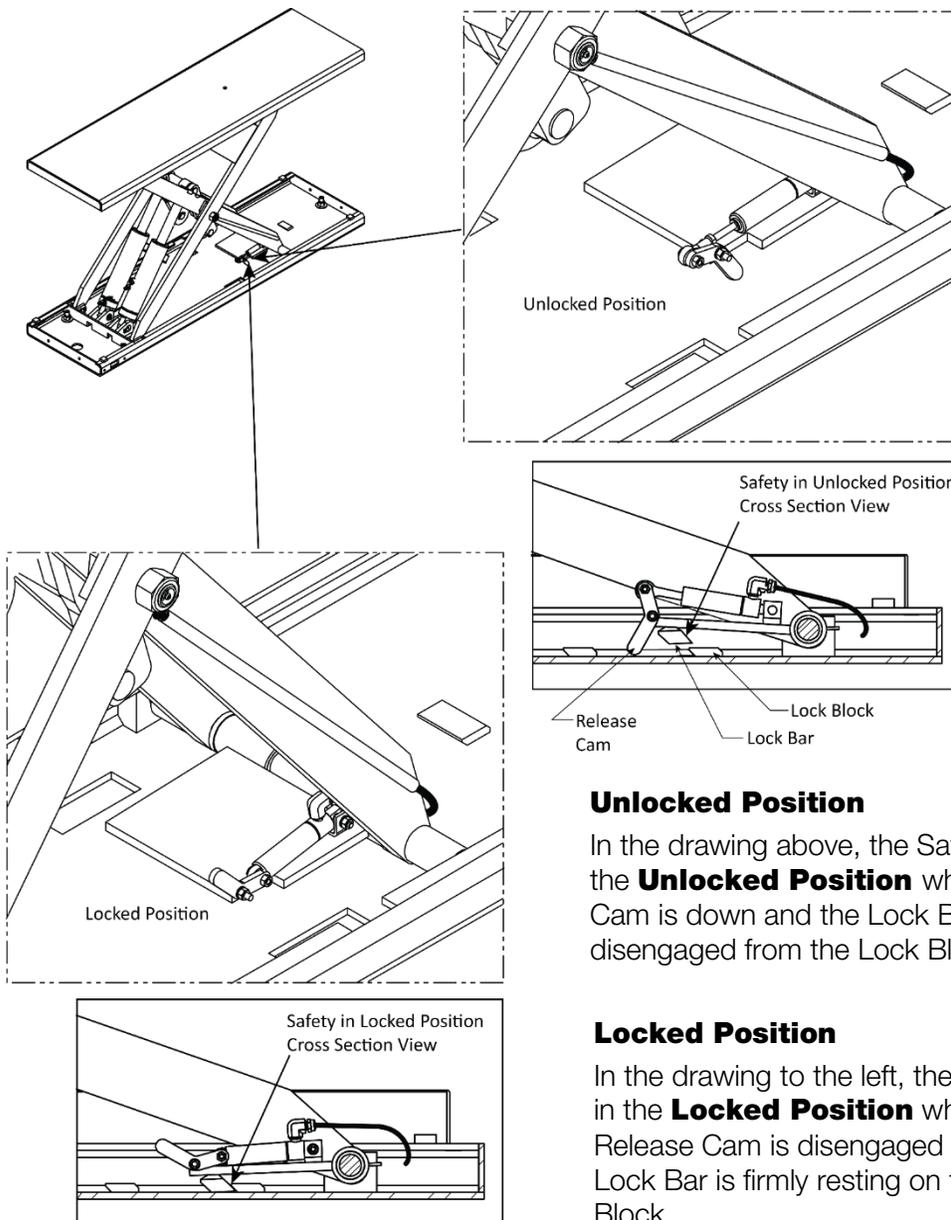
Each of the Frame Assemblies on your Lift comes with its own Safety Lock mechanism. Safety Locks hold a raised Vehicle in place once they are engaged.

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.



### Unlocked Position

In the drawing above, the Safety is in the **Unlocked Position** when the Cam is down and the Lock Bar is disengaged from the Lock Block.

### Locked Position

In the drawing to the left, the Safety is in the **Locked Position** when the Release Cam is disengaged and the Lock Bar is firmly resting on the Lock Block.

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## Lowering a Vehicle

This section describes how to lower a Vehicle from a raised position. The same instructions and warnings for raising a Vehicle apply to lowering it.

- **Never** exceed the rated capacity of this Lift, 6,000 lbs. / 2,722 kg
- **Never** exceed the Maximum load of 3,000 lbs. / 1,361 kg. per Lift side.
- **Always** center the load evenly.
- **Do not** operate the Lift if any component is found to be defective or worn.
- **Never** operate the Lift with any person or equipment under the Lift.
- **Always** ensure the Vehicle is centered and stable prior to operating the Lift controls.
- **Always** verify the Safety Locks are engaged before working on or near any Vehicle.
- **Never** leave the Lift in an elevated position unless the **Safety Locks** on **both** Platforms are engaged.
- **Never** attempt to work on or near a Vehicle when it is raised on the Platforms unless the Safety Locks are engaged.
- Do **not** permit the Power Unit to get wet. The motor can be damaged and water damage is not covered under the product warranty.

 **WARNING** Always allow a minimum of 2-seconds delay between motor starts. Failure to comply may cause switch and/or Motor burnout. This could cause serious damage to the equipment and/or personal property.

### 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. Before lowering the Vehicle, be sure all personnel, tools, and other equipment are clear of the Lift and surrounding area.
3. At the Console, press and hold the **Raise** button to elevate the Lift at least 2 inches. Raising the Lift Platform up and off of the Safety Locks.
4. Press and hold the **Safety Lock Release** button.
5. Lower the Vehicle by pressing and holding the **Lower** button.  
If you do not press and hold the Safety Lock Release, the Lift will stop at the next Safety Lock.
6. While lowering the Lift, make sure that all personnel and objects are clear of the Lift and surrounding area.
7. Always keep a clear visual line of sight on the Lift and the Vehicle at all times.
8. Always verify all Locks disengage when the **Safety Lock Release** button is pressed. If one of the locks inadvertently engages on descent, the Lift and /or vehicle may become unbalanced and cause serious injury or death.
9. When the Platforms are fully lowered, release both buttons.
10. Carefully drive the Vehicle off the Platforms.

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# 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. BendPak strongly recommends using your Power Disconnect Switch during maintenance.

If your organization has Lockout/Tag Out policies, be sure to implement them to ensure no-one can start the Lift while maintenance is in process.

## To maintain your Lift:

- **After one hour of use:** Check the Hydraulic Fluid levels. Refill if low.
- **Daily:** Raise the Lift to full height at least once a day. This will prolong the life of the Cylinder Seals and prevent premature leakage and spills. This also bleeds the system of any trapped air and maintains the equal lifting of the system.
- **Daily:** Keep the Lift and Lift area clean. Wipe up any Hydraulic Fluid spills.
- **Daily:** Make a visual inspection of all moving parts and check for damage or excessive wear. If you find any damaged or worn parts, take the Lift out of service until they are replaced.
- **Daily:** Make sure the Safety Locks are in good operating condition. If you find that the Safety Locks are damaged or excessively worn, take the Lift out of service until they are replaced. **Do not use your Lift if the Safety Locks are damaged or excessively worn.**
- **Weekly:** Check all controls to make sure they are functioning normally.
- **Weekly:** Check all labels on the unit. Replace them if they are illegible or missing.
- **Monthly:** Lubricate the grease fittings. BendPak recommends 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 [support@bendpak.com](mailto:support@bendpak.com), visit [bendpak.com/support](http://bendpak.com/support), or call **(800) 253-2363**, extension 196.

# Troubleshooting

This section describes how to troubleshoot your Lift.

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

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

| Issue  | Action to Take  |
|--|---|
| Platforms move erratically or squeak when in use.                                  | Move the Platforms up and down a few times, with a break between each; there could be residual air in the Hydraulic System. The cylinders are self-bleeding.  |
| Platforms do not go up or down.  | Make sure the Power Unit is connected to an appropriate power source.<br>Make sure none of the Hydraulic Hoses are pinched or leaking.<br>Make sure there is sufficient Hydraulic Fluid in the Reservoir on the Power Unit. |
| Hydraulic Fluid is old or dirty.   | Replace the dirty fluid with clean, approved Hydraulic Fluids, such as Dexron III, Dexron VI, Mercon V, Mercon LV, Shell Tellus S4 / S3 / S2, or comparable.  |
| Platforms make odd noises when in use.   | Lubricate hinge points using White Lithium Grease.<br>Lubricate the platforms where the Slide Blocks travel using White Lithium Grease.   |
| Platforms are slowly lowering on their own.  | Make sure both Platforms are on Safety Locks.<br>Only leave the Lift fully lowered or engaged on Safety Locks.<br>Look for Hydraulic Fluid leaks.   |
| Lift Frames cannot not rise from a zero net rise position with weight on the lift. | The MDS-6 Series Lift cannot raise a full load from a completely flat position. Refer to <b>Vehicle with No Tires Fully Lowered</b> .   |

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

## Vehicle with No Tires - Fully Lowered

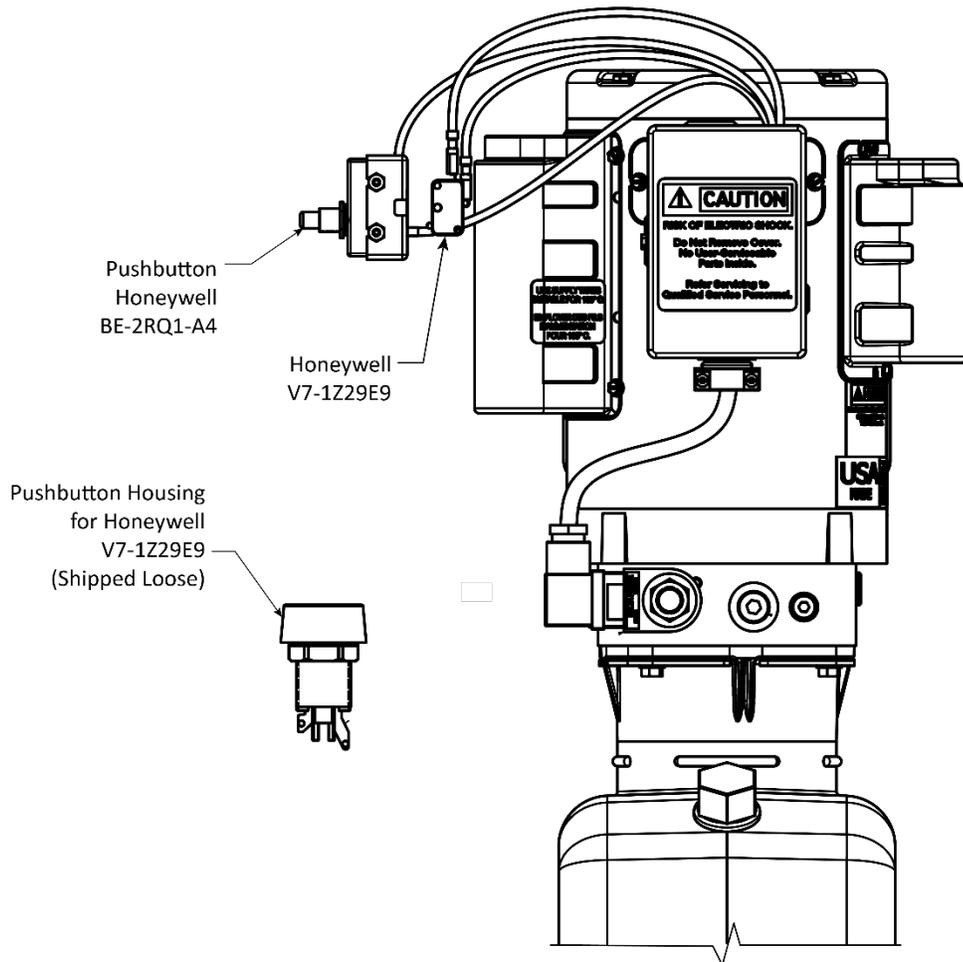
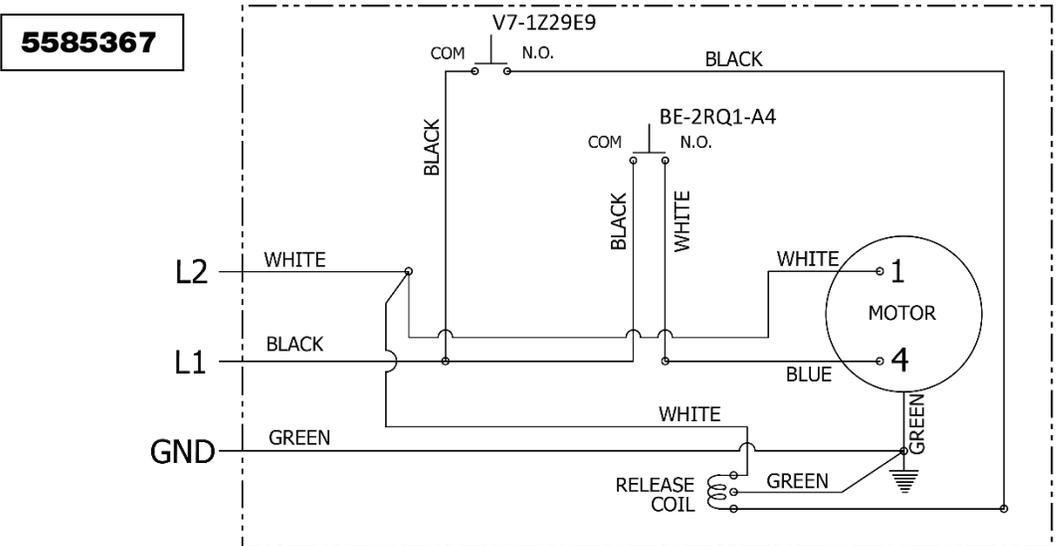
When the MDS-6 Series Lift is completely flat and there is too much weight on the Lift Platform, there is no room to develop any upward force. The weight on the Lift must be reduced by at least half or raise the Vehicle off the Lift Platform or Lift Pads in some other manner.

Methods that have resolved this issue include:

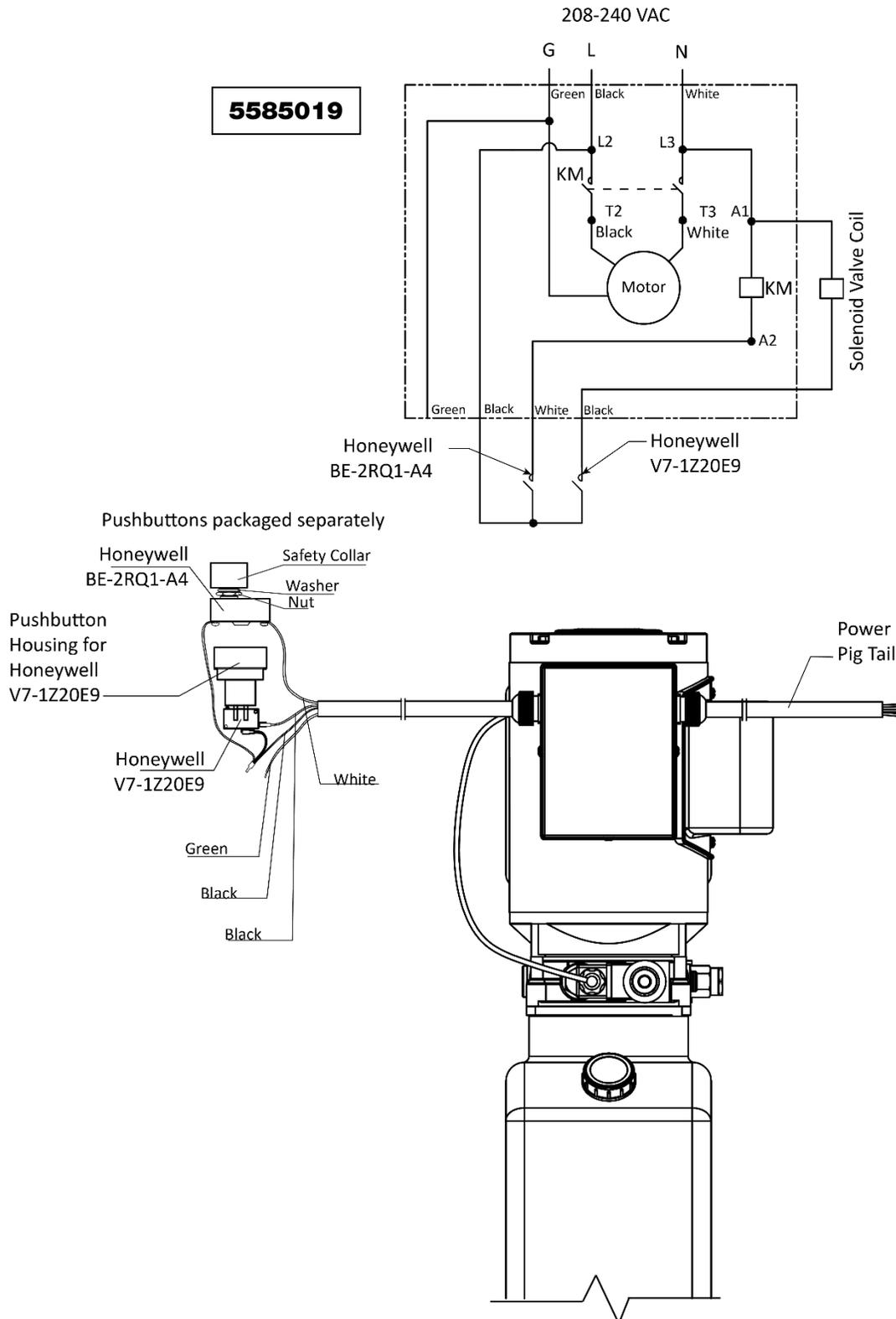
- Use a floor jack to raise the Vehicle from four to six inches.
- Using lifting equipment to raise the Vehicle. If you are still unable to raise your Vehicle, contact BendPak Technical Support for assistance.

# Wiring Diagram

Three Power different Power Units are currently approved for use with the MDS-6 Series. Refer to the wiring schematics below to connect power and the Console control pushbuttons. A Power Disconnect Switch and an External Thermal Overload Protection device in accordance with the National Electrical code and CE code Part 1, **must be provided by a licensed, certified Electrician.** Wiring providing power to this unit must be rated for 2 H.P., 1 Phase, 208-230 Volt, 60 Hz., 30 Amps.

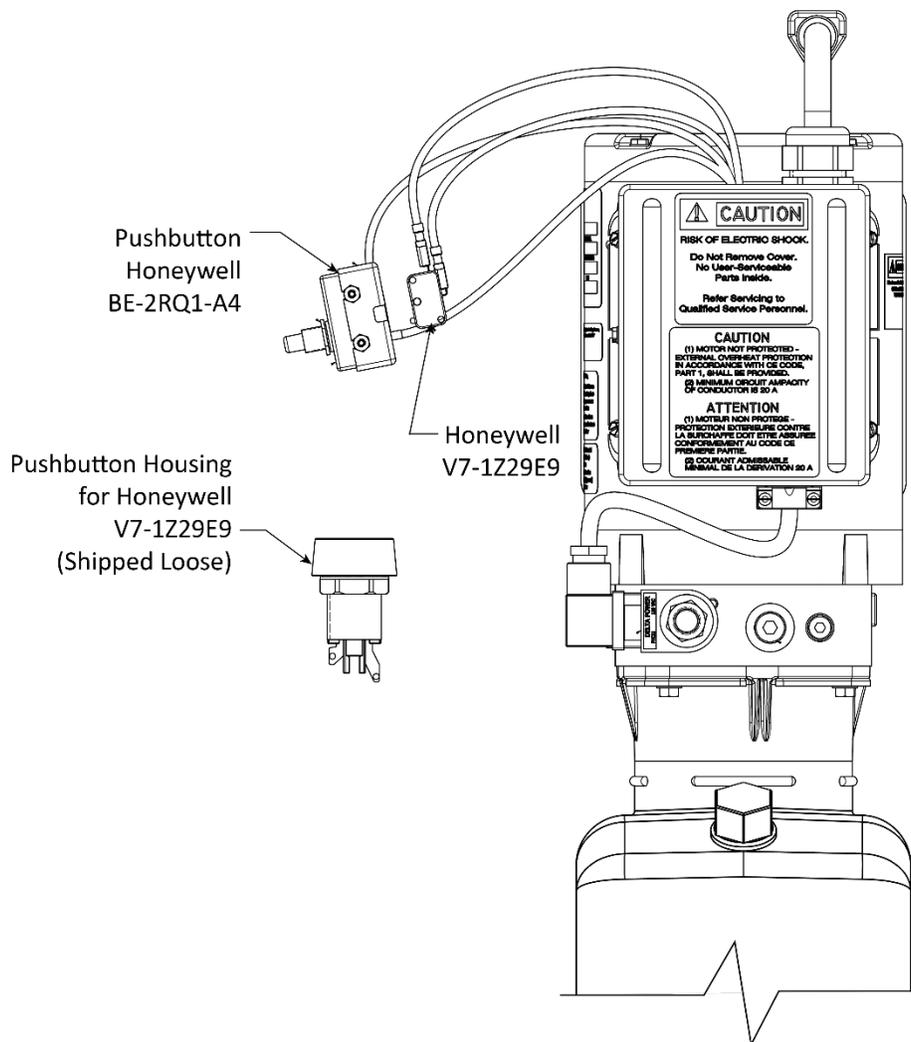
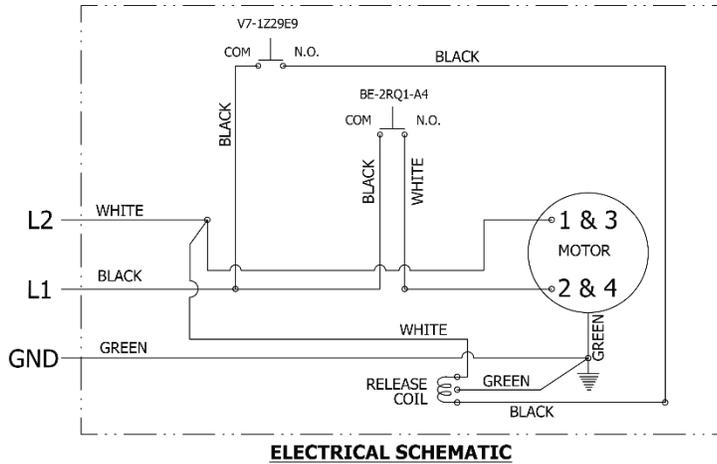


Refer to the wiring schematics below to connect power and the Console control pushbuttons. A Power Disconnect Switch and an External Thermal Overload Protection device in accordance with the National Electrical code and CE code Part 1, **must be provided by a licensed, certified Electrician**. Wiring providing power to this unit must be rated for 3 H.P., 1 Phase, 208-240 Volt, 50/60 Hz., 30 Amps.



Refer to the wiring schematics below to connect power and the Console control pushbuttons. A Power Disconnect Switch and an External Thermal Overload Protection device in accordance with the National Electrical code and CE code Part 1, **must be provided by a licensed, certified Electrician**. Wiring providing power to this unit must be rated for 1 H.P., 1 Phase, 110/120 Volt, 50/60 Hz.

**5585002**



# Labels



**E** SANTA PAULA, CA USA  
WWW.BENDPAK.COM  
PN 590554D

LIFT TYPE: SURFACE MOUNT MFG. BPK SEE DATA PLATE FOR PRODUCT DETAILS  
POWER: ELECTRIC-HYDRAULIC INSTALLATION - SEE OWNERS GUIDE OR CONTACT FACTORY

SAFETY INSTRUCTIONS: IF ATTACHMENTS, ACCESSORIES OR CONFIGURATION MODIFYING COMPONENTS THAT ARE LOCATED IN THE LOAD PATH, AFFECT OPERATION OF THE LIFT, AFFECT THE LIFT ELECTRICAL LISTING OR AFFECT INTENDED VEHICLE ACCOMMODATION ARE USED ON THIS LIFT AND, IF THEY ARE NOT CERTIFIED FOR USE ON THIS LIFT, THEN THE CERTIFICATION OF THIS LIFT SHALL BECOME NULL AND VOID. CONTACT THE PARTICIPANT FOR INFORMATION PERTAINING TO CERTIFIED ATTACHMENTS, ACCESSORIES OR CONFIGURATION MODIFYING COMPONENTS.

BENDPAK LIFTS ARE SUPPLIED WITH CONCRETE FASTENERS MEETING THE CRITERIA AS PRESCRIBED BY ASTM E488 - 09(2003). LIFT BUYERS ARE RESPONSIBLE FOR ANY SPECIAL, REGIONAL, STRUCTURAL AND/OR SEISMIC ANCHORING REQUIREMENTS SPECIFIED BY ANY OTHER AGENCIES AND/OR CODES SUCH AS THE UNIFORM BUILDING CODE (UBC) AND/OR INTERNATIONAL BUILDING CODE (IBC).

THE MANUFACTURE, USE, SALE OR IMPORT OF THIS PRODUCT MAY BE SUBJECT TO ONE OR MORE UNITED STATES PATENTS, OR PENDING APPLICATIONS, OWNED BY BENDPAK, INC.  
DO NOT REMOVE. ENGINEERED BY BENDPAK INC. USA MADE IN CHINA

**C**

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

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

**F**

**CAUTION MISE EN GARDE**

Maximum load on scissor lifts should **NOT** exceed 3,000 pounds per side. Always center the load evenly. **NEVER** attempt to work on or near a vehicle when it is raised on the scissors unless the safety latches are engaged on each scissor unit.

Charge maximale sur les élévateurs à ciseaux ne doit **PAS** dépasser 1361 kilogrammes par côté. Centrez toujours la charge uniformément. **N'essayez JAMAIS** de travailler sur ou à proximité d'un véhicule lorsqu'il est relevé sur les ciseaux à moins que la sécurité les verrous sont engagés sur chaque unité de ciseaux.



**J**

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

- Never exceed rated capacity of lift.
- Do NOT operate lift if any component is found to be defective or worn.
- Never operate lift with any person or equipment below.
- Always ensure load is centered and stable prior to operating controls.
- Always verify safety locks are engaged before working on or near vehicle.
- Never leave lift in an elevated position unless all safety locks are engaged.
- Do not permit electric motor to get wet! Motor damage caused by dampness is not covered under warranty.

**OPERATING INSTRUCTIONS**

**TO RAISE LIFT**

- Position vehicle's center of gravity over center of lift's platform.
- Set parking brake and use wheel chocks to hold vehicle in position.
- Before raising vehicle, be sure all personnel are clear of lift and surrounding area. Pushes to allow adequate clearance for loads to clear.
- Release lift's manual height by pressing RAISE button.
- Maintain visual contact with vehicle and surrounding area at all times while raising or lowering lift.
- STOP IMMEDIATELY if load shifts or becomes unlevel.
- After vehicle is raised to desired height, lower lift onto the ground safety locks.

**ALWAYS ENGAGE ALL SAFETY LOCKS AND ENAGED before raising work area.**

**TO LOWER LIFT**

- Before lowering vehicle, be sure all personnel, tools and equipment are clear of lift and surrounding area.
- Release lift by pressing RAISE button. Stop lift at least two inches to allow adequate clearance for loads to clear.
- Press and HOLD SAFETY LOCK RELEASE button.
- Lower vehicle by pressing LOWER button until lift has descended completely.
- When lowering lift, **MAKE SURE** that all personnel and objects are well clear of lift and surrounding area.
- ALWAYS** keep a visual line of sight on lift **AT ALL TIMES**.
- ALWAYS** make sure that **ALL LOCKS** are disengaged. If one of the lift's load-holding mechanisms is disabled, lift lower vehicle may drop causing serious injury or death.

**SAFETY FIRST**

**RAISE LIFT OPERATION LOWER**

**BP BendPak**

TEL: 800-803-9878 • www.bendpak.com  
1640 Larchwood Dr. • Santa Paula, CA 91080  
ENGINEERED BY BENDPAK USA • MADE IN CHINA

**I**

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

MODEL NUMBER \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

LIFT CAPACITY \_\_\_\_\_ DATE OF MFG. \_\_\_\_\_

VOLTAGE SERIAL NUMBER

110-240V, 50-60 Hz, 1 Ph

208-240V, 50-60 Hz, 1 Ph

380-415V, 50-60 Hz, 3 Ph

208-440V, 50-60 Hz, 3 Ph

UPC \_\_\_\_\_

**⚠ DANGER!**  
Disconnect Power Before Servicing

**ERC**

WARRANTY VOID IF DATA PLATE IS REMOVED PN 590554E1

**K**

**WARNING**  
DRIVE CAR COMPLETELY OVER LIFT  
CONDUISSEZ LA VOTRE CARRIÈRE COMPLÈTEMENT SUR L'ASCENSEUR

**ATTENTION**

ALWAYS ensure that the safety is in LOCKED position before any attempt is made to work on or near the vehicle. TOUJOURS s'assurer que la sécurité est en position VERROUILLÉE avant de tenter de travailler sur ou à proximité de la voiture.

**SAFETY IN LOCKED POSITION**  
Before Car Coverage  
Lock Bar (with safety Lock 981612)

**SAFETY UNLOCKED POSITION**  
Before Car and Lock Bar Released  
Release Car and Lock Bar (with safety Lock 981612)

**NEVER OVERLOAD LIFT** Check for 1" minimum clearance between top and lift before raising.  
**NE JAMAIS SURCHARGER L'ASCENSEUR** Vérifier le décalage minimum de 1" entre le cabinet et l'ascenseur avant de soulever.

**DO NOT** park on or load lift in a fully raised position or damage may result.  
**NE PAS stationner ni charger l'ascenseur** dans un état complètement relevé ou des dommages peuvent en résulter.

**SECURITE EN POSITION VERROUILLÉE**  
(Relâchez la barre de sécurité. Ouvrez le verrouillage.)

**SECURITE EN POSITION DEVERROUILLÉE**  
(Relâchez la barre et la barre de verrouillage, soulevez la voiture.)

**L**

**CAUTION**

Power Unit: Secure placard near lift controls.

The messages and pictographs shown are generic, illustrative and are meant to generally represent hazards common to all equipment, irrespective of specific style.

Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies. They are protected by copyright.

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**CAUTION**

Lift to be used by trained operator only.

**CAUTION**

Lift Control Console: Secure placard in an accessible location.

**CAUTION**

Authorized personnel only in lift area.

**CAUTION**

Use vehicle manufacturer's lift points.

**CAUTION**

Always use safety stands when removing or installing heavy components.

**NOTICE**

Read operating and safety manuals before using lift.

**NOTICE**

Proper maintenance and inspection is necessary for safe operation.

**NOTICE**

Do not operate a damaged lift.

**O**

**WARNING**

Always allow a minimum 2-second delay between motor starts. Failure to comply may cause switch and/or motor burnout. This could cause serious damage to the equipment and/or personal property.

**RISK OF EXPLOSION**

This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. **THIS EQUIPMENT SHOULD BE LOCATED AT LEAST 460 MM (18 INCHES) ABOVE THE FLOOR.**

All wiring must be performed by a certified electrician only. It is the responsibility of the electrician to ensure that all field wiring systems comply with both NEC recommendations and all additional electrical codes.

**ATTENTION**

Prévoyez toujours un délai minimum de 2 secondes entre les démarrages du moteur. Le non-respect de cette consigne peut entraîner l'épaissement des commutateurs et/ou du moteur. Cela pourrait causer de graves dommages à l'équipement et/ou aux biens personnels.

**RISQUE D'EXPLOSION**

Cet équipement comporte des pièces internes produisant des arcs électriques ou des étincelles qui ne doivent pas être exposées à des vapeurs inflammables. **CET ÉQUIPEMENT DOIT ÊTRE SITUÉ AU MOINS 460 MM (18 POUCES) AU-DESSUS DU SOL.**

Tout le câblage doit être effectué par un électricien certifié. Il incombe à l'électricien de s'assurer que tous les systèmes de câblage sur site sont conformes aux recommandations NEC et à tous les codes électriques supplémentaires.

**P**

|                 |                         |           |         |
|-----------------|-------------------------|-----------|---------|
| SKU NO: 5585280 | <b>Ranger</b>           |           | TENV    |
| HP: 2.0         | I.D. NO: ST-001-PROTO   | VOLT: 208 | V: 240  |
| HZ: 50/60       | RPM: 2880/3450          | KVA: L    | FLA: 15 |
| PH: 1           | NOT THERMALLY PROTECTED | EFF%: 80  | SFA: 1  |
| FRAME: 56       | DUTY: 5 MIN             | DES: 56   | SFA: 1  |
| TYPE:           | MAX. AMB. °C: 40        | PRV: 2850 |         |
| DATE:           | INS CLASS: F            | CODE:     |         |

WARNING: GROUNDING - Failure to connect the power frame to suitable grounding conductor by using the grounding cord, green screw, or green wire provided, may result in electrical shock.

MADE IN CHINA

**M**

**NOTICE**

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

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**Q**

**CAUTION**

(1) MOTOR NOT PROTECTED - EXTERNAL OVERHEAT PROTECTION IN ACCORDANCE WITH CE CODE, PART 1, SHALL BE PROVIDED.  
(2) MINIMUM CIRCUIT AMPACITY OF CONDUCTOR IS 30A

**PRECAUCIÓN**

(1) MOTOR NO ESTÁ PROTEGIDO - SE PROVEERÁ PROTECCIÓN CONTRA SOBRECALENTAMIENTO EXTERNO DE CONFORMIDAD CON EL CÓDIGO CE, SECCIÓN 1.  
(2) AMPACIDAD MÍNIMO DEL CONDUCTOR DEL CIRCUITO ES 30A

**ATTENTION**

(1) MOTEUR NON PROTEGE - PROTECTION EXTERIEURE CONTRE LA SURCHAUFFE DOIT ETRE ASSUREE CONFORMEMENT AU CODE CE PREMIERE PARTIE.  
(2) COURANT ADMISSIBLE MINIMAL DE LA DERIVATION 30A

**Maximum Run Time: 100 Seconds.**  
**Off Time: 500 Seconds.**  
**Total: 600 Seconds.**

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

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

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

**R**

**CERTIFIED AUTOMOTIVE LIFT**

INDEPENDENTLY TESTED AND VALIDATED

ALI CERTIFIED

To the provisions of ANSI/ALI ALCVT-2011 SAFETY REQUIREMENTS FOR CONSTRUCTION, TESTING AND VALIDATION

Automotive Lift Institute, Inc. | Cortland, NY 13045

MET LISTED  
Conforms to ANSI/UL 201 SAFETY STANDARD FOR GARAGE EQUIPMENT

MET LISTED

MET Laboratories, Inc. | BALTIMORE, MD 21230

Certification Label Serial Number: AL00617000J

**N**

**WARNING**

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

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

**ADVERTENCIA**

Esta central hidráulica contiene una bomba capaz de desarrollar una presión en exceso de 5.000 psi (345 BAR). La presión está establecida por la válvula de descarga al nivel de presión deseada. Es extremadamente peligroso y no es recomendable, descomponerla, modificarla, ajustarla o removerla. Solo un técnico cualificado, utilizando un manómetro hidráulico calibrado para asegurar que la propia presión es alcanzada, podrá hacer modificaciones a la válvula de descarga.

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

**WARNUNG**

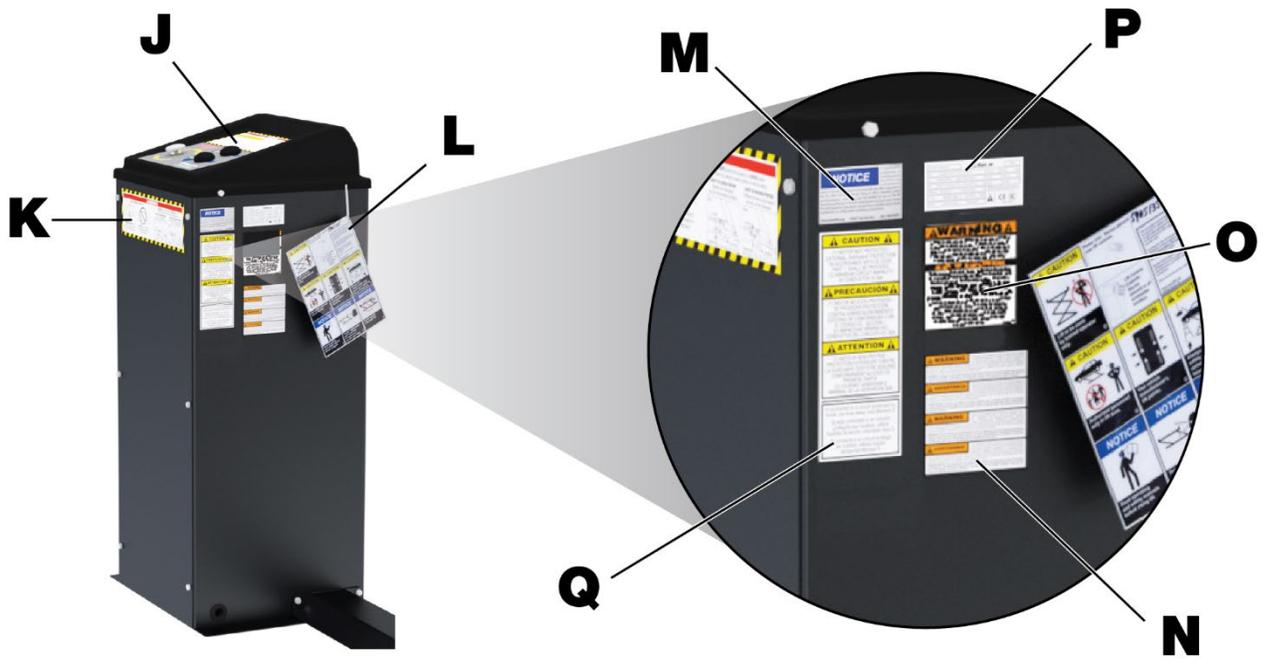
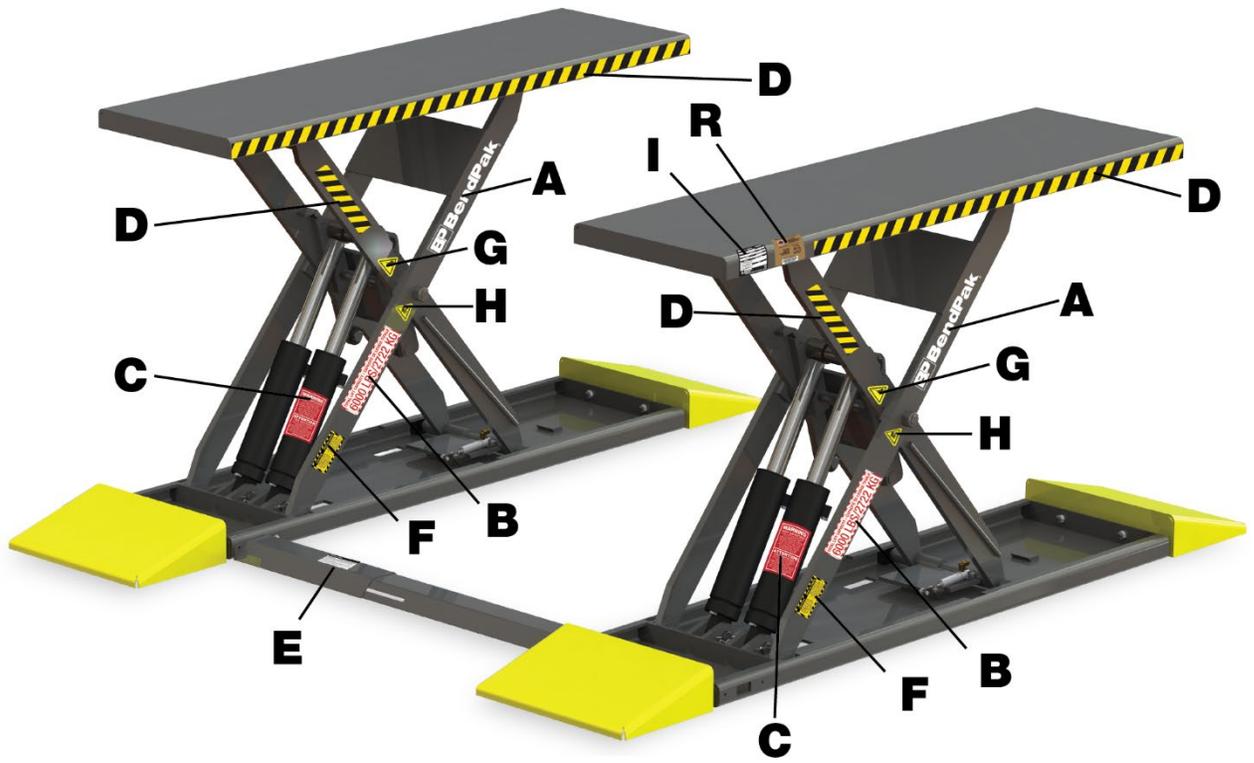
Dieses Hydraulaggregat beinhaltet eine Pumpe, welche einen Betriebsdruck bis zu 345 bar aufbauen kann. Ein integrierter Druckbegrenzungsventil begrenzt diesen Betriebsdruck. Missbrauch, verändern oder zerstören dieses Ventils, ist extrem gefährlich und ist nicht zu empfehlen. Nur qualifiziertes Personal mit Hydraulikerfahrung, sollte unter Verwendung eines kalibrierten Manometers den Druck dieses Sicherheitsventils einstellen.

**WARNUNG: Eine Veränderung des Betriebsdruckes am Aggregat, kann zu Problemen bei anderen angeschlossenen Komponenten führen, welche nur über einen geringeren zulässigen Betriebsdruck verfügen. Dies kann zur vollständigen Zerstörung dieser Geräte führen und zusätzlich zu schweren Verletzungen oder sogar zu Lebensgefahr beim Bedienen führen.**

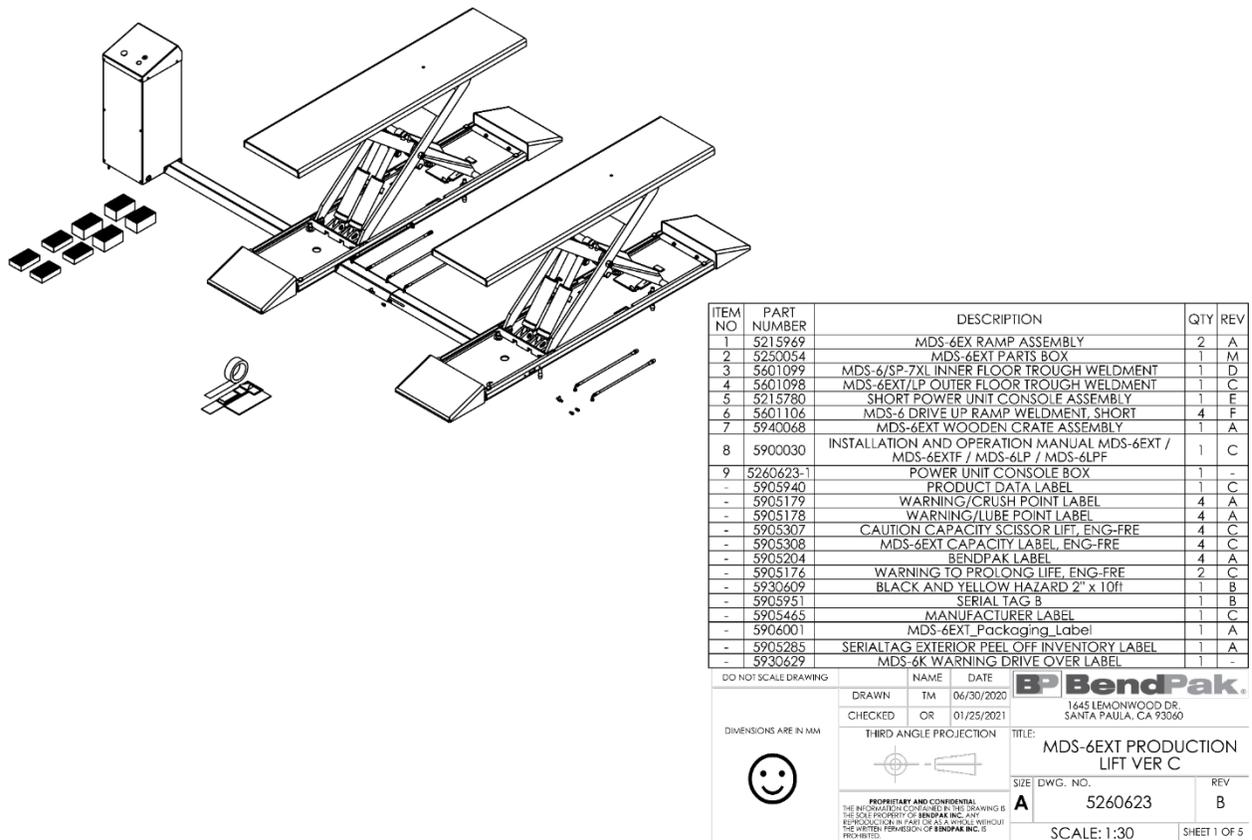
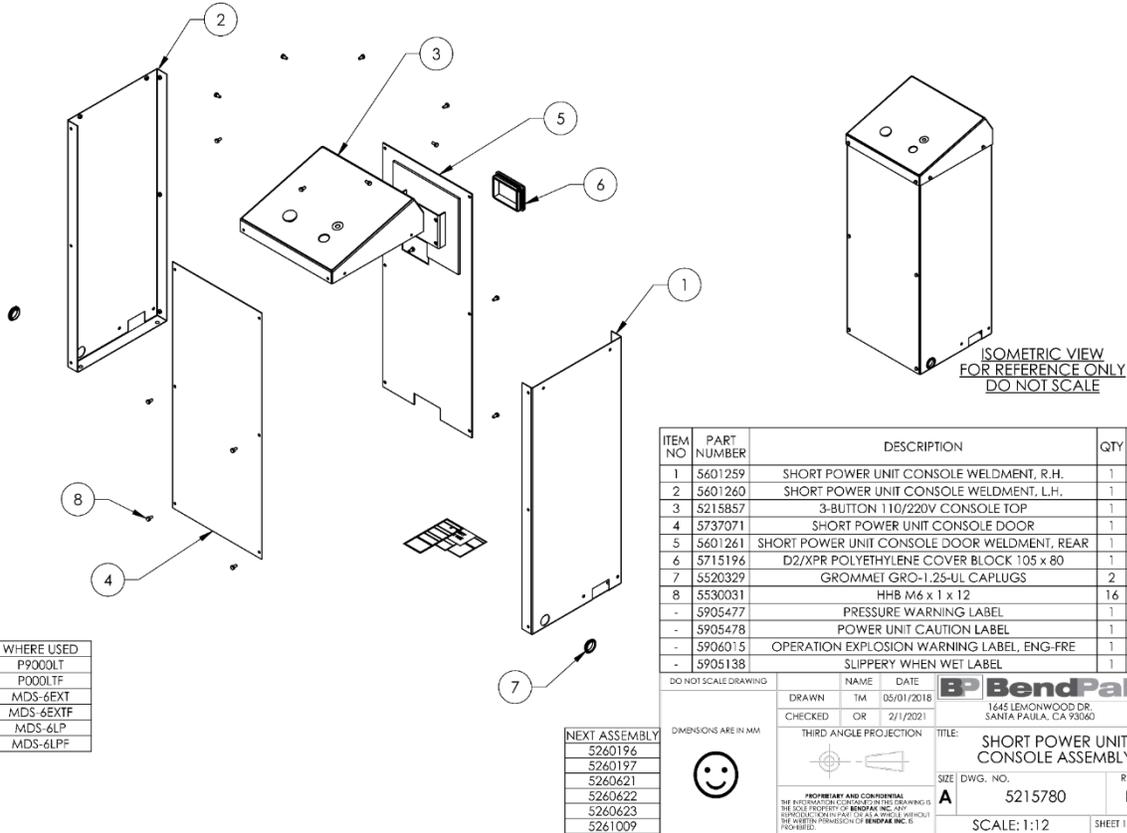
**AVERTISSEMENT**

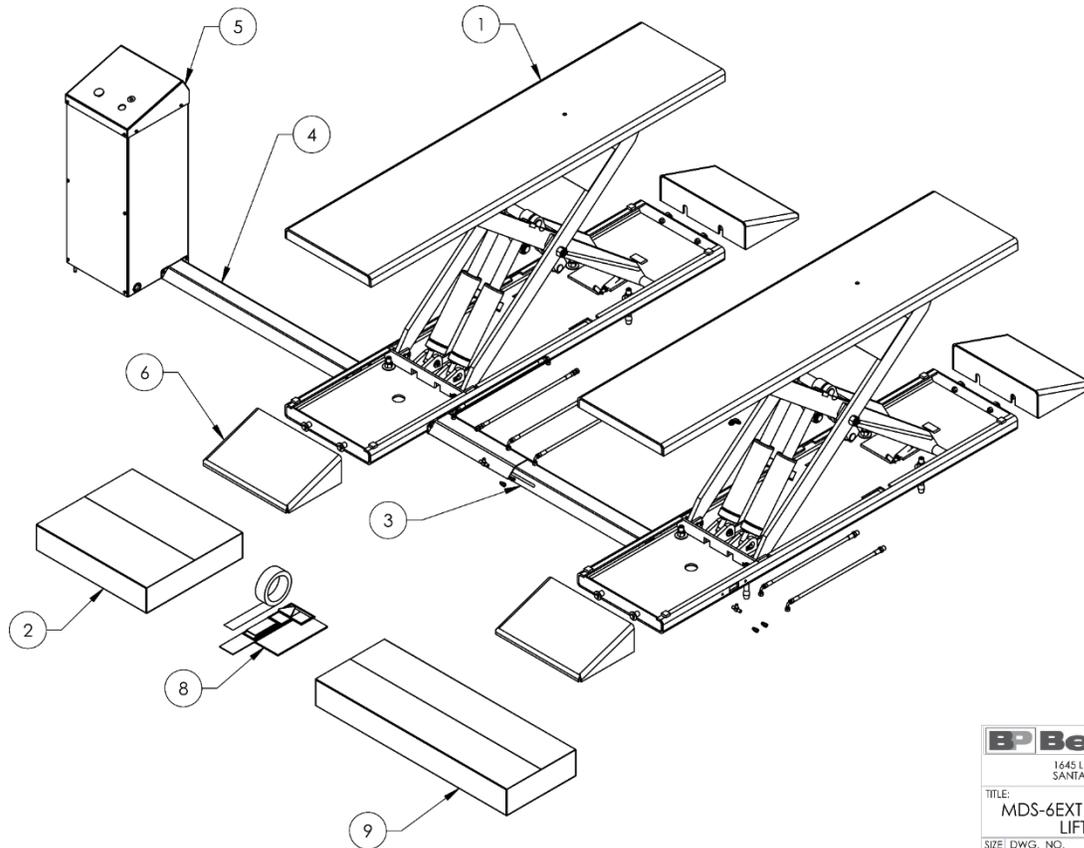
Cet équipement utilise une pompe hydraulique capable de fournir une pression de 345 bar. Les soupapes de sécurité sont utilisées pour régler la pression à la valeur souhaitée. Toute altération, réglage, modification ou suppression de ces soupapes est extrêmement dangereuse et n'est absolument pas recommandée. Uniquement un technicien qualifié, utilisant un manomètre pour permettre l'affichage précis de la pression, pourra assurer les réglages de la soupape de sécurité.

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

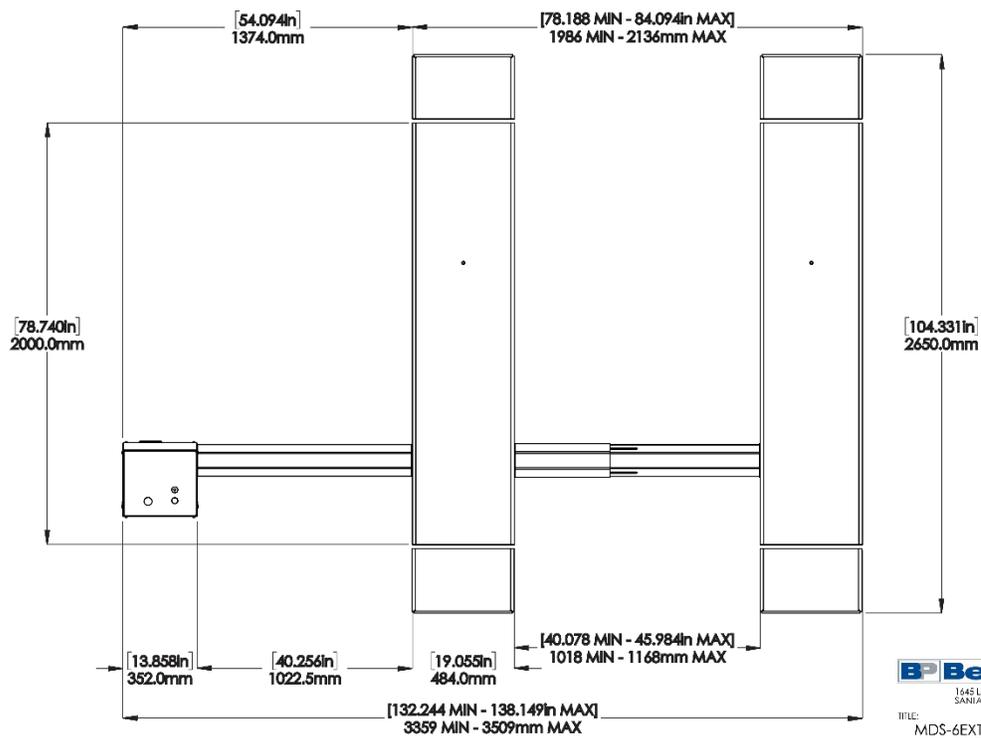


# Parts Diagrams

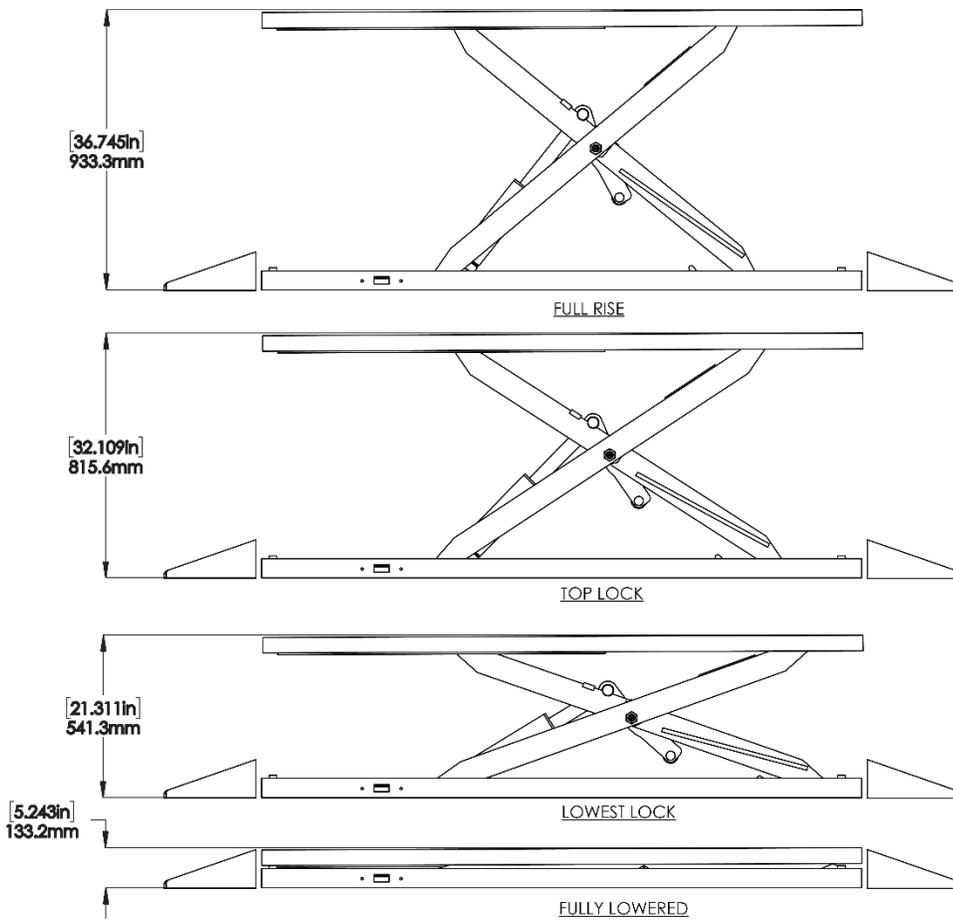




|   |              |
|---|--------------|
| <b>BP BendPak.</b>                          |              |
| 1645 LEMONWOOD DR.<br>SANTA PAULA, CA 93060 |              |
| TITLE:<br>MDS-6EXT PRODUCTION<br>LIFT VER C |              |
| SIZE DWG. NO.                               | REV          |
| <b>A</b> 5260623                            | <b>B</b>     |
| SCALE: 1:20                                 | SHEET 2 OF 5 |



|   |              |
|---|--------------|
| <b>BP BendPak.</b>                          |              |
| 1645 LEMONWOOD DR.<br>SANTA PAULA, CA 93060 |              |
| TITLE:<br>MDS-6EXT PRODUCTION<br>LIFT VER C |              |
| SIZE DWG. NO.                               | REV          |
| <b>A</b> 5260623                            | <b>B</b>     |
| SCALE: 1:20                                 | SHEET 4 OF 5 |

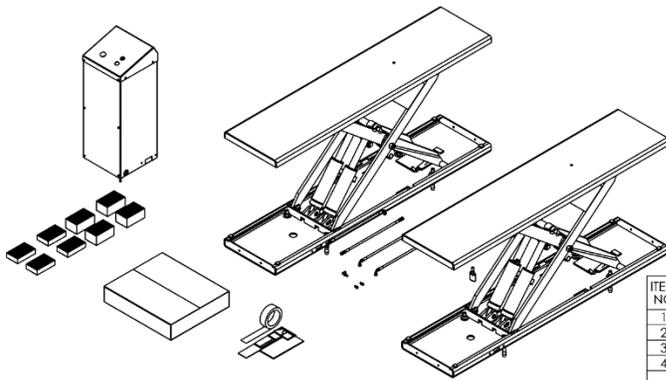


**BP BendPak.**  
 1645 LEMONWOOD DR.  
 SANTA PAULA, CA 93060

TITLE: MDS-6EXT PRODUCTION  
 LIFT VER C

SIZE DWG. NO. REV  
**A** 5260623 **B**

SCALE: 1:16 SHEET 3 OF 5



| ITEM NO | PART NUMBER | DESCRIPTION   | QTY | REV |
|---------|-------------|---|-----|-----|
| 1       | 5215969     | MDS-6EX RAMP ASSEMBLY   | 2   | A   |
| 2       | 5250062     | MDS-6EXTF PARTS BOX   | 1   | H   |
| 3       | 5215780     | SHORT POWER UNIT CONSOLE ASSEMBLY   | 1   | E   |
| 4       | 5940069     | MDS-6EXTF WOODEN CRATE ASSEMBLY   | 1   | A   |
| 5       | 5900030     | INSTALLATION AND OPERATION MANUAL MDS-6EXT / MDS-6EXTF / MDS-6LP / MDS-6LPF | 1   | C   |
| 6       | 5261009-1   | POWER UNIT CONSOLE BOX  | 1   | -   |
| -       | 5905940     | PRODUCT DATA LABEL  | 1   | C   |
| -       | 5905179     | WARNING/CRUSH POINT LABEL   | 4   | A   |
| -       | 5905178     | WARNING/LUBE POINT LABEL  | 4   | A   |
| -       | 5905307     | CAUTION CAPACITY SCISSOR LIFT, ENG-FRE                                      | 4   | C   |
| -       | 5905308     | MDS-6EXT CAPACITY LABEL, ENG-FRE  | 4   | C   |
| -       | 5905204     | BENDPAK LABEL, ENG-FRE  | 4   | A   |
| -       | 5905176     | WARNING TO PROLONG LIFE, ENG-FRE  | 2   | C   |
| -       | 5905465     | MANUFACTURER LABEL  | 1   | C   |
| -       | 5905951     | SERIAL TAG B  | 1   | B   |
| -       | 5930609     | BLACK AND YELLOW HAZARD 2" x 10ft   | 1   | B   |
| -       | 5906024     | MDS-6EXTF_Packaging_Label   | 1   | B   |
| -       | 5905285     | SERIALTAG EXTERIOR PEEL OFF INVENTORY LABEL                                 | 1   | A   |
| -       | 5930629     | MDS-6K WARNING DRIVE OVER LABEL   | 1   | C   |

DO NOT SCALE DRAWING

NAME DATE  
DRAWN TM 06/30/2020  
CHECKED OR 01/25/2021

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

DIMENSIONS ARE IN MM

THIRD ANGLE PROJECTION

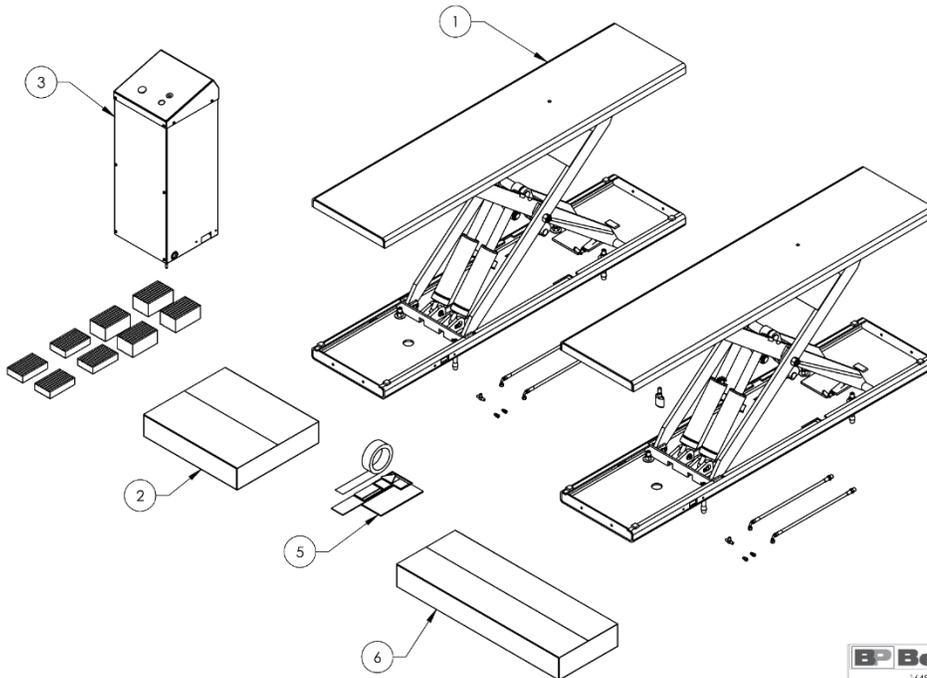
TITLE: MDS-6EXTF  
PRODUCTION LIFT VER C



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SIZE DWG. NO. REV  
**A** 5261009 **B**

SCALE: 1:30 SHEET 1 OF 5



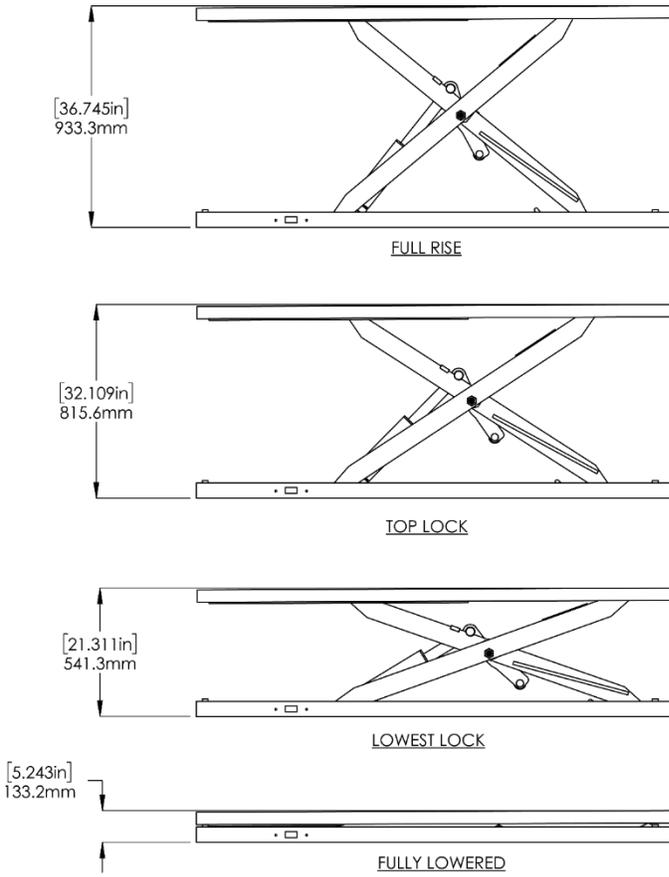
**BP BendPak.**

1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE: MDS-6EXTF  
PRODUCTION LIFT VER C

SIZE DWG. NO. REV  
**A** 5261009 **B**

SCALE: 1:20 SHEET 2 OF 5

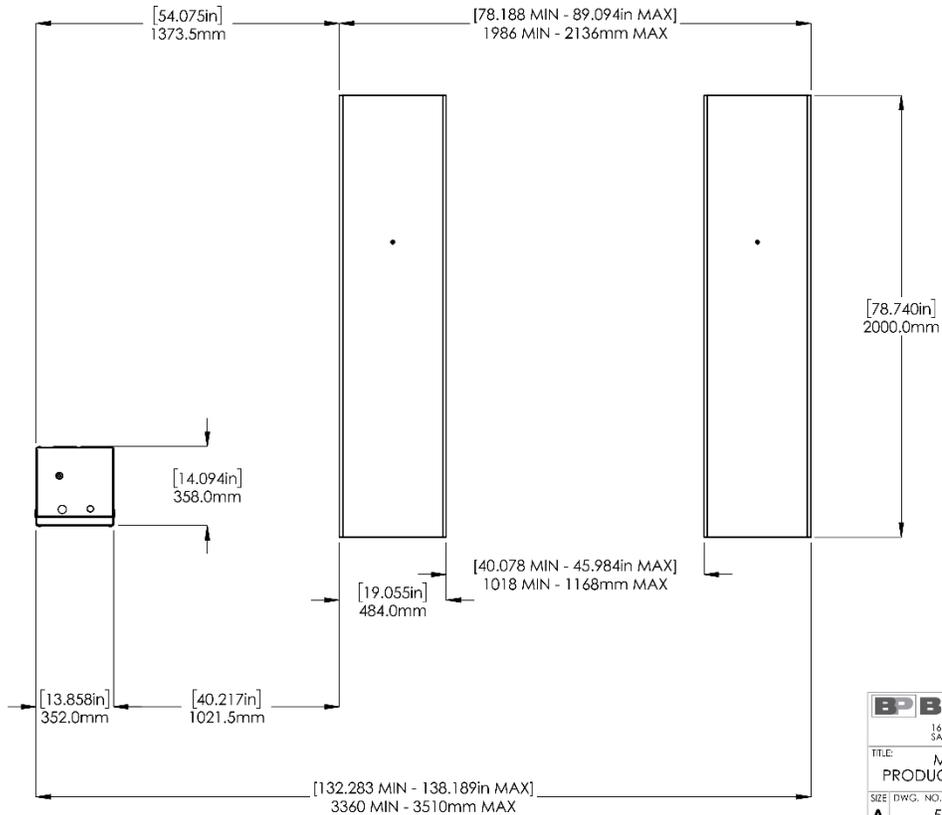


**BendPak**  
 1445 LEMONWOOD DR.  
 SANTA PAULA, CA 93060

TITLE: MDS-6EXTF  
 PRODUCTION LIFT VER C

|          |          |          |
|----------|----------|----------|
| SIZE     | DWG. NO. | REV      |
| <b>A</b> | 5261009  | <b>B</b> |

SCALE: 1:20 SHEET 3 OF 5

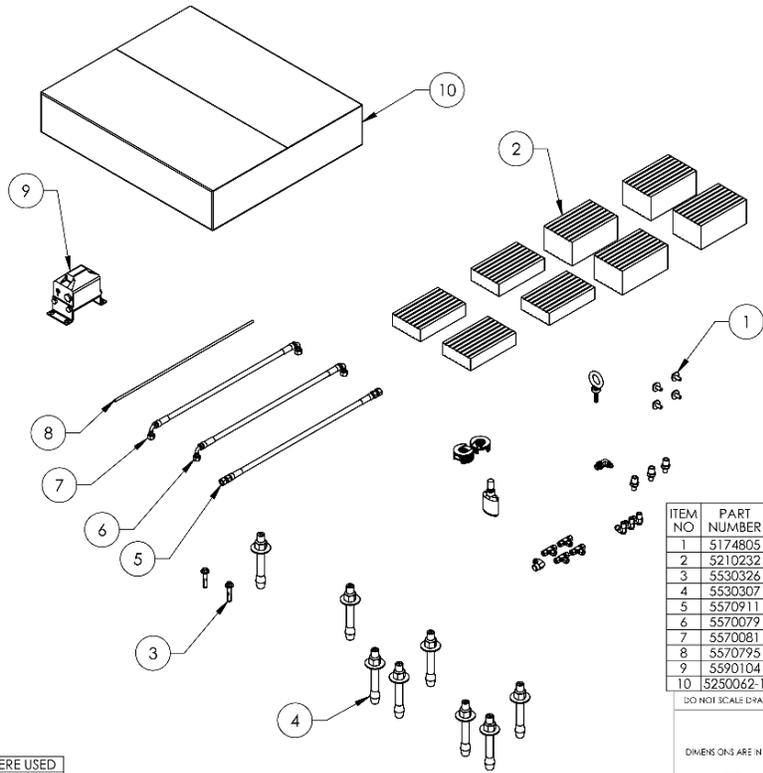


**BendPak**  
 1445 LEMONWOOD DR.  
 SANTA PAULA, CA 93060

TITLE: MDS-6EXTF  
 PRODUCTION LIFT VER C

|          |          |          |
|----------|----------|----------|
| SIZE     | DWG. NO. | REV      |
| <b>A</b> | 5261009  | <b>B</b> |

SCALE: 1:20 SHEET 4 OF 5



WHERE USED  
MDS-6EXTF

NEXT ASSEMBLY  
5261009

| ITEM NO | PART NUMBER | DESCRIPTION                                       | QTY     | REV |
|---------|-------------|---|---------|-----|
| 1       | 5174805     | MDS-6EXTF/LPF PARTS BAG                           | 1       | F   |
| 2       | 5210232     | LOW RISE SCISSOR LIFT RUBBER PAD KIT, SET OF 8    | 1       | A   |
| 3       | 5530326     | AB Ø3/8" x 2-1/4"                                 | 2       | --  |
| 4       | 5530307     | AB 3/4" x 5"                                      | 8       | --  |
| 5       | 5570911     | MDS-6 SERIES HYDRAULIC HOSE ASSY Ø4.35 x 458mm DS | 1       | B   |
| 6       | 5570079     | HYDRAULIC HOSE ASSEMBLY Ø6.35 x 2212mm DB         | 1       | B   |
| 7       | 5570081     | HYDRAULIC HOSE ASSEMBLY Ø6.35 x 3352mm DB         | 1       | B   |
| 8       | 5570795     | 1/4" POLY-FLO TUBING                              | 9260mm* | --  |
| 9       | 5590104     | HYDRAULIC FLOW DIVIDER CAST IRON; ST              | 1       | --  |
| 10      | 5250062-1   | MDS-6EXTF PARTS BOX                               | 1       | --  |

DO NOT SCALE DRAWING

|         |    |            |
|---------|----|------------|
| DRAWN   | TM | 01/31/2017 |
| CHECKED | OR | 01/25/2021 |

NAME DATE

THIRD ANGLE PROJECTION

**BendPak**  
1445 LEMONWOOD DR.  
SANITA PAULA, CA 93060

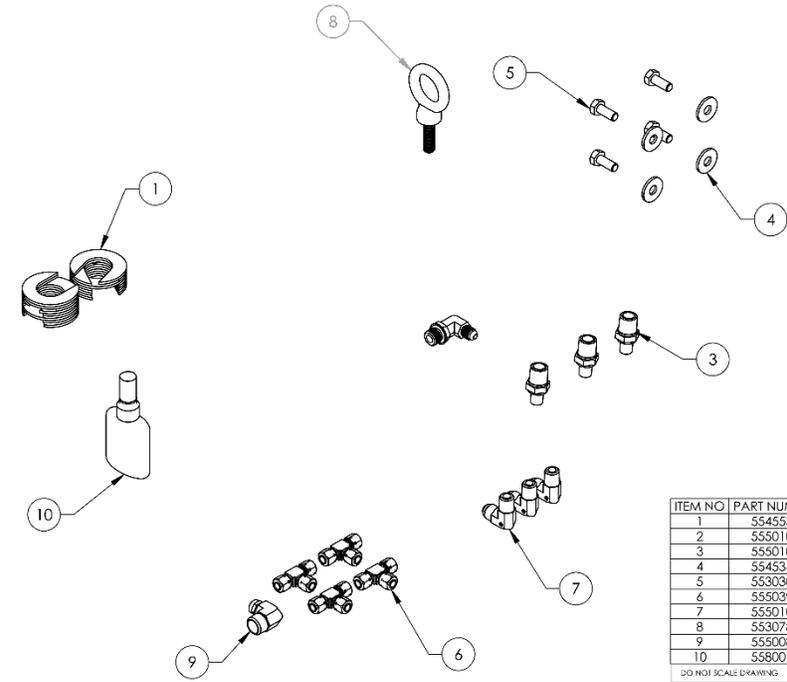
TITLE: MDS-6EXTF PARTS BOX

SIZE DWG. NO. REV

**A** 5250062 H

SCALE: 1:12 SHEET 1 OF 1

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WHERE USED  
MDS-6EXTF  
MDS-6LPF

NEXT ASSEMBLY  
5250062  
5250064

| ITEM NO | PART NUMBER | DESCRIPTION                            | QTY | REV |
|---------|-------------|--|-----|-----|
| 1       | 5545335     | C WASHER SHIM FOR LIFTS                | 20  | --  |
| 2       | 5550103     | FTG ELB -04 JIC -06 ORB                | 1   | --  |
| 3       | 5550100     | FTG NPL -04 JIC x -06 NPT              | 3   | --  |
| 4       | 5545340     | WASHER M8 x24 FLAT                     | 4   | --  |
| 5       | 5530304     | HHB M8 x 1.25 x 20                     | 4   | --  |
| 6       | 5550395     | FTG TEE -04 COMP x -04 COMP x -04 COMP | 4   | --  |
| 7       | 5550106     | FTG ELB -04JIC x 3/8" NPT              | 3   | --  |
| 8       | 5530788     | EYE M10 x 1.5 x 28 ID                  | 1   | --  |
| 9       | 5550089     | FTG ELB -04 COMP x -06 NPT             | 1   | --  |
| 10      | 5580012     | LIQUID PIPE THREAD SEALANT 50ml        | 1   | --  |

DO NOT SCALE DRAWING

|         |    |            |
|---------|----|------------|
| DRAWN   | TM | 01/31/2017 |
| CHECKED | OR | 4/14/2020  |

NAME DATE

THIRD ANGLE PROJECTION

**BendPak**  
1445 LEMONWOOD DR.  
SANITA PAULA, CA 93060

TITLE: MDS-6EXTF/LPF PARTS BAG

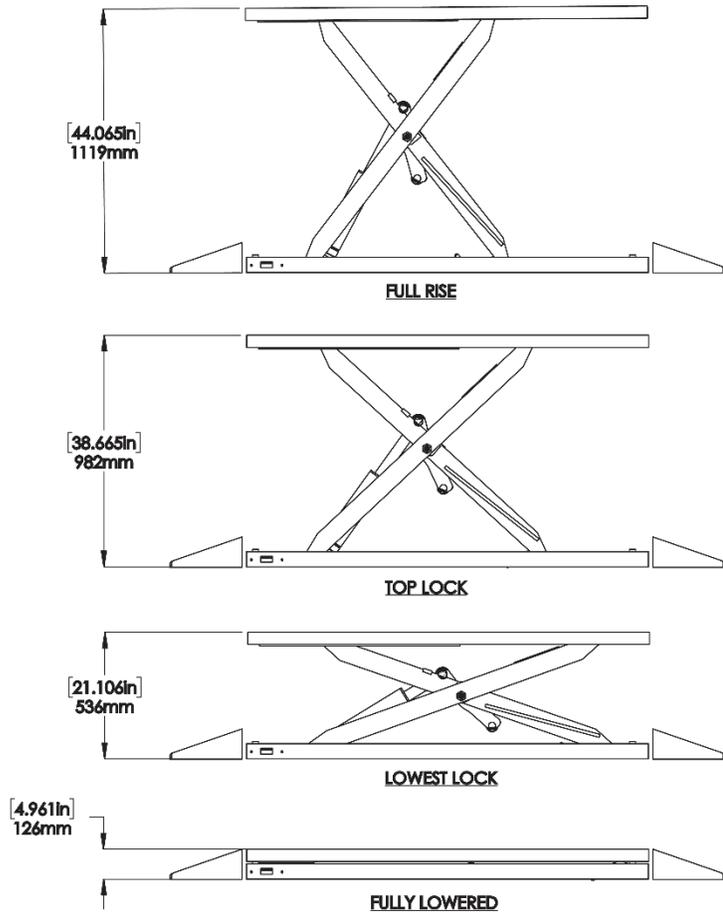
SIZE DWG. NO. REV

**A** 5174805 F

SCALE: 1:4 SHEET 1 OF 1

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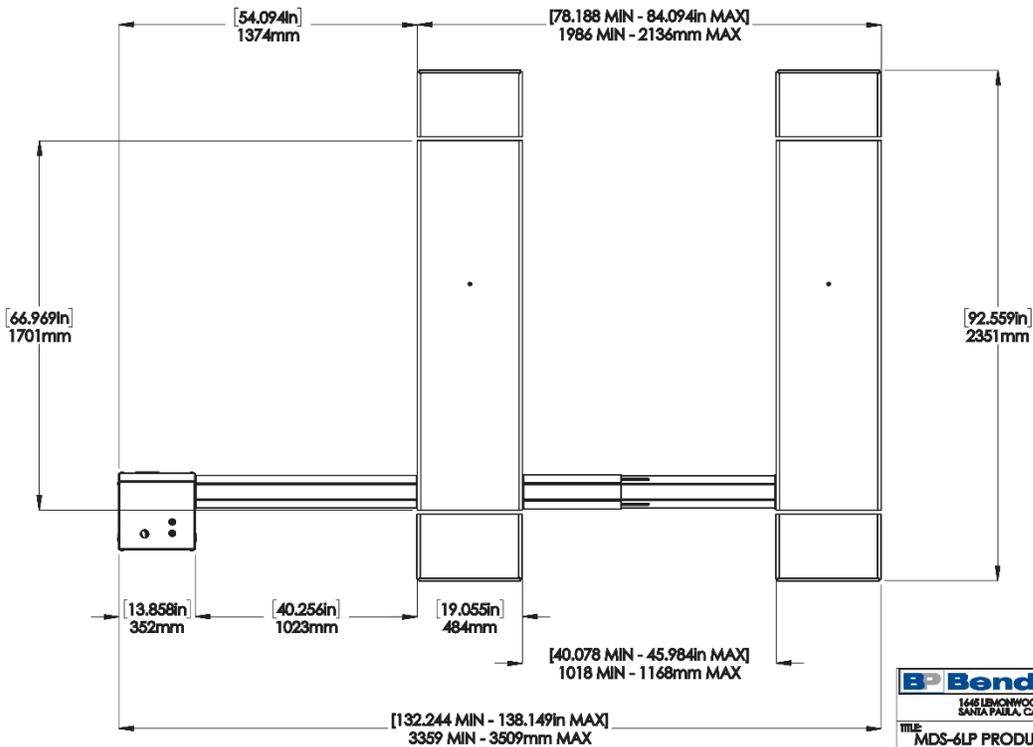


**BendPak**  
 1645 LEWONWOOD DR.  
 SANTA PAULA, CA 93060

TITLE:  
**MDS-6LP PRODUCTION  
 LIFT VER B**

|          |                |          |
|----------|----------------|----------|
| SIZE     | DWG. NO.       | REV      |
| <b>A</b> | <b>5260622</b> | <b>B</b> |

SCALE: 1:20 SHEET 3 OF 5

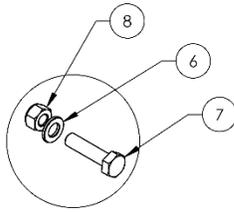


**BendPak**  
 1645 LEWONWOOD DR.  
 SANTA PAULA, CA 93060

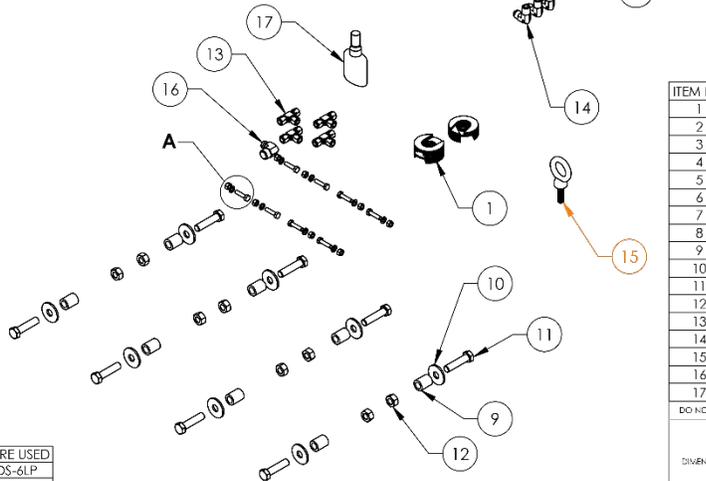
TITLE:  
**MDS-6LP PRODUCTION  
 LIFT VER B**

|          |                |          |
|----------|----------------|----------|
| SIZE     | DWG. NO.       | REV      |
| <b>A</b> | <b>5260622</b> | <b>B</b> |

SCALE: 1:20 SHEET 4 OF 5



DETAIL A  
SCALE 1 : 2



WHERE USED  
MDS-6LP  
MDS-6EXT

NEXT ASSEMBLY  
5250054  
5250063

| ITEM NO | PART NUMBER | DESCRIPTION                            | QTY | REV |
|---------|-------------|--|-----|-----|
| 1       | 554535      | C WASHER SHIM FOR LIFTS                | 20  | --  |
| 2       | 5550103     | FTG ELB -04 JIC -06 ORB                | 1   | --  |
| 3       | 5550100     | FTG NFL -04 JIC x -06 NPT              | 3   | --  |
| 4       | 5545340     | WASHER M8 x24 FLAT                     | 4   | --  |
| 5       | 5530304     | HHB M8 x 1.25 x 20                     | 4   | --  |
| 6       | 5545005     | M6 FLAT WASHER                         | 8   | --  |
| 7       | 5530756     | HHB M6 x 1 x 25                        | 8   | --  |
| 8       | 5535357     | NUT M6 x 1.0 NL                        | 8   | --  |
| 9       | 5755155     | MDS-6K DRIVE UP RAMP BOLT SPACER       | 8   | B   |
| 10      | 5545027     | WASHER M12 x Ø37 x 3mm                 | 8   | --  |
| 11      | 5530193     | HHB M12 x 1.75 x 50                    | 8   | --  |
| 12      | 5530102     | NUT M12x1.75 NL                        | 8   | --  |
| 13      | 5550395     | FTG TEE -04 COMP x -04 COMP x -04 COMP | 4   | --  |
| 14      | 5550106     | FTG ELB -04JIC x 3/8" NPT              | 3   | --  |
| 15      | 5530788     | EYE M10 x 1.5 x 28 ID                  | 1   | --  |
| 16      | 5550089     | FTG ELB -04 COMP x -06 NPT             | 1   | --  |
| 17      | 5580012     | LIQUID PTFE THREAD SEALANT 50ml        | 1   | --  |

DO NOT SCALE DRAWING

|         |    |            |
|---------|----|------------|
| DRAWN   | TM | 07/28/2016 |
| CHECKED | OR | 4/14/2020  |

BP BendPak  
1645 LEMONWOOD DR.  
SANTA PAULA, CA 93080

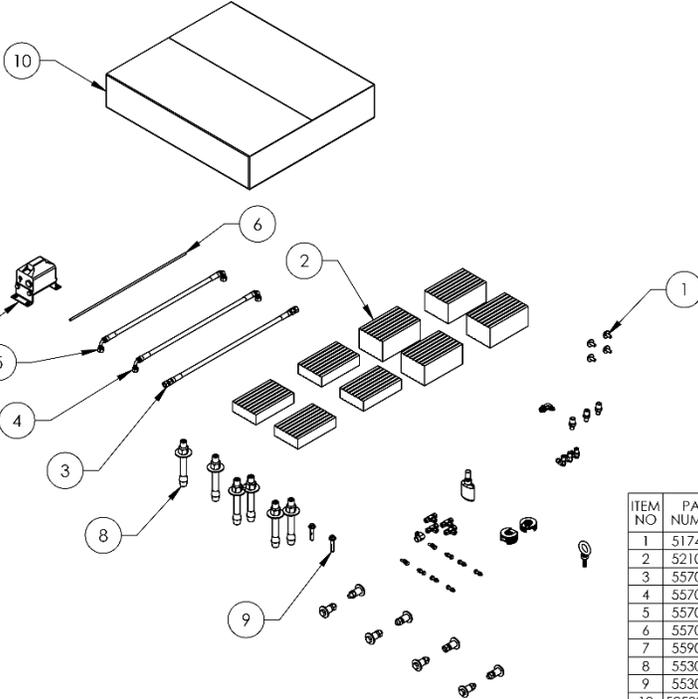
TITLE: MDS-6EXT/LP PARTS BAG

SIZE: DWG. NO. REV  
A 5174018 K

SCALE: 1:8 SHEET 1 OF 1

THIRD ANGLE PROJECTION

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WHERE USED  
MDS-6LP

NEXT ASSEMBLY  
5260622

| ITEM NO | PART NUMBER | DESCRIPTION                                       | QTY     | REV |
|---------|-------------|---|---------|-----|
| 1       | 5174018     | MDS-6EXT/LP PARTS BAG                             | 1       | K   |
| 2       | 5210232     | LOW RISE SCISSOR LIFT RUBBER PAD KIT, SET OF 8    | 1       | A   |
| 3       | 5570911     | MDS-6 SERIES HYDRAULIC HOSE ASSY Ø6.35 x 458mm DS | 1       | B   |
| 4       | 5570079     | HYDRAULIC HOSE ASSEMBLY Ø6.35 x 2212mm DB         | 1       | B   |
| 5       | 5570081     | HYDRAULIC HOSE ASSEMBLY Ø6.35 x 3352mm DB         | 1       | B   |
| 6       | 5570795     | 1/4" POLY-FLO TUBING                              | 9260mm* | --  |
| 7       | 5590104     | HYDRAULIC FLOW DIVIDER CAST IRON; ST              | 1       | --  |
| 8       | 5530307     | AB 3/4" x 5"                                      | 6       | --  |
| 9       | 5530326     | AB Ø3/8" x 2-1/4"                                 | 2       | --  |
| 10      | 5250063-1   | MDS-6LP/LPF PARTS BOX                             | 1       | --  |

DO NOT SCALE DRAWING

|         |    |            |
|---------|----|------------|
| DRAWN   | TM | 01/30/2017 |
| CHECKED | OR | 7/17/2021  |

BP BendPak  
1645 LEMONWOOD DR.  
SANTA PAULA, CA 93080

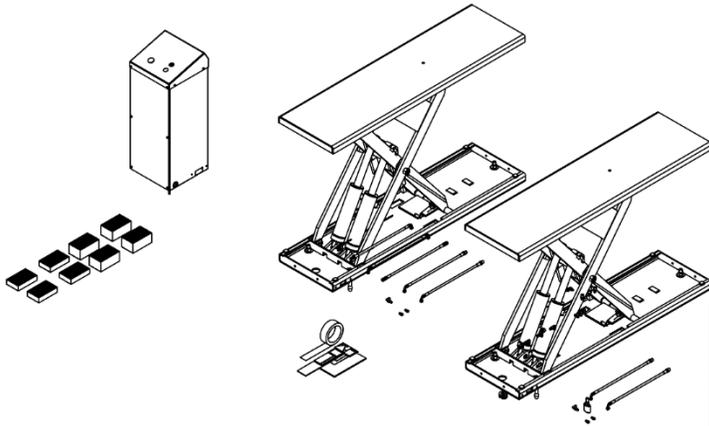
TITLE: MDS-6LP PARTS BOX

SIZE: DWG. NO. REV  
A 5250063 J

SCALE: 1:15 SHEET 1 OF 1

THIRD ANGLE PROJECTION

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| ITEM NO | PART NUMBER | DESCRIPTION   | QTY | REV |
|---------|-------------|---|-----|-----|
| 1       | 5215968     | MDS-6LP/LPF RAMP ASSEMBLY   | 2   | A   |
| 2       | 5250064     | MDS-6LPF PARTS BOX  | 1   | J   |
| 3       | 5215780     | MDS-6 SERIES POWER UNIT CONSOLE ASSEMBLY, SHORT                             | 1   | E   |
| 4       | 5940067     | MDS-6LPF WOODEN CRATE ASSEMBLY  | 1   | A   |
| 5       | 5900030     | INSTALLATION AND OPERATION MANUAL MDS-6EXT / MDS-6EXTF / MDS-6LP / MDS-6LPF | 1   | C   |
| 6       | 5215780-1   | POWER UNIT CONSOLE BOX  | 1   | -   |
| -       | 5905940     | PRODUCT DATA LABEL  | 1   | C   |
| -       | 5905179     | WARNING/CRUSH POINT LABEL   | 4   | A   |
| -       | 5905178     | WARNING/LUBE POINT LABEL  | 4   | A   |
| -       | 5905307     | CAUTION CAPACITY SCISSOR LIFT   | 4   | C   |
| -       | 5905308     | MDS-6K CAPACITY LABEL   | 4   | C   |
| -       | 5905204     | BENDPAK LABEL   | 4   | A   |
| -       | 5905176     | WARNING TO PROLONG LIFE   | 2   | C   |
| -       | 5905465     | MANUFACTURER LABEL  | 1   | C   |
| -       | 5905951     | 5905951-2015_Serial_Tag-B   | 1   | B   |
| -       | 5930609     | BLACK AND YELLOW HAZARD 2" x 10"  | 1   | B   |
| -       | 5906003     | MDS-6LPF_Packaging_Label  | 1   | A   |
| -       | 5905653     | LABEL: ALI-ALCTV-2017 GOLD LABEL, US; MET LABS                              | 1   | A   |
| -       | 5905285     | SERIALTAG EXTERIOR PEEL OFF INVENTORY LABEL                                 | 1   | A   |
| -       | 5905377     | NOTICE LABEL, ALI/WLSIA01   | 1   | A   |
| -       | 5930629     | MDS-6K WARNING DRIVE OVER LABEL   | 1   | C   |

DO NOT SCALE DRAWING

|            |            |   |
|------------|------------|---|
| NAME       | DATE       | <br>1645 LEMONWOOD DR.<br>SANTA PAULA, CA 93060 |
| DRAWN IM   | 06/30/2020 |   |
| CHECKED OR | 01/25/2021 |   |

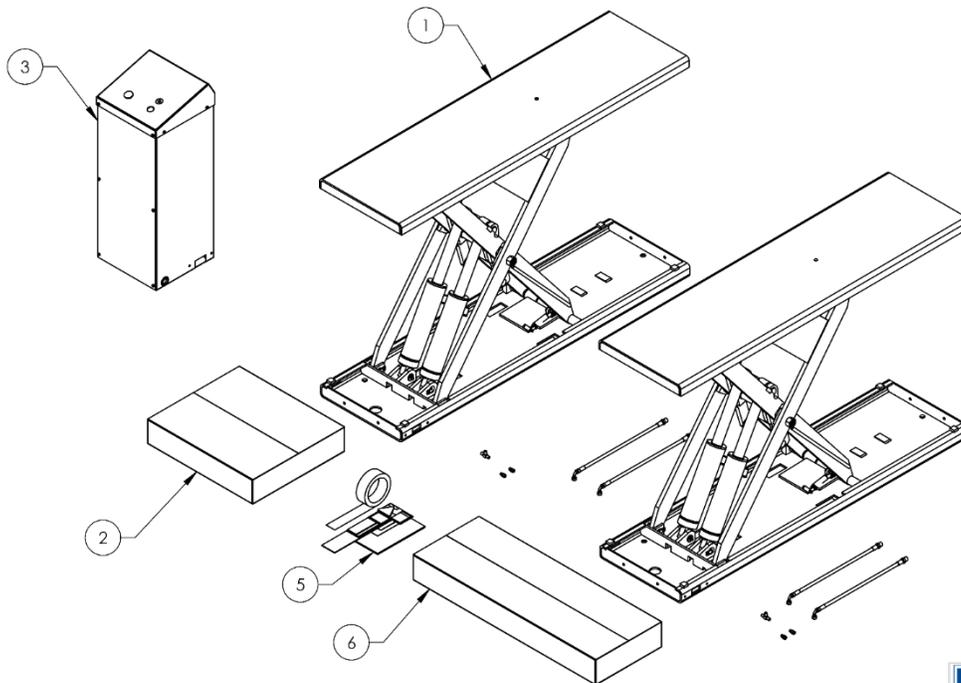
THIRD ANGLE PROJECTION

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SIZE DWG. NO. REV

**A** 5260621 **B**

SCALE: 1:30 SHEET 1 OF 5



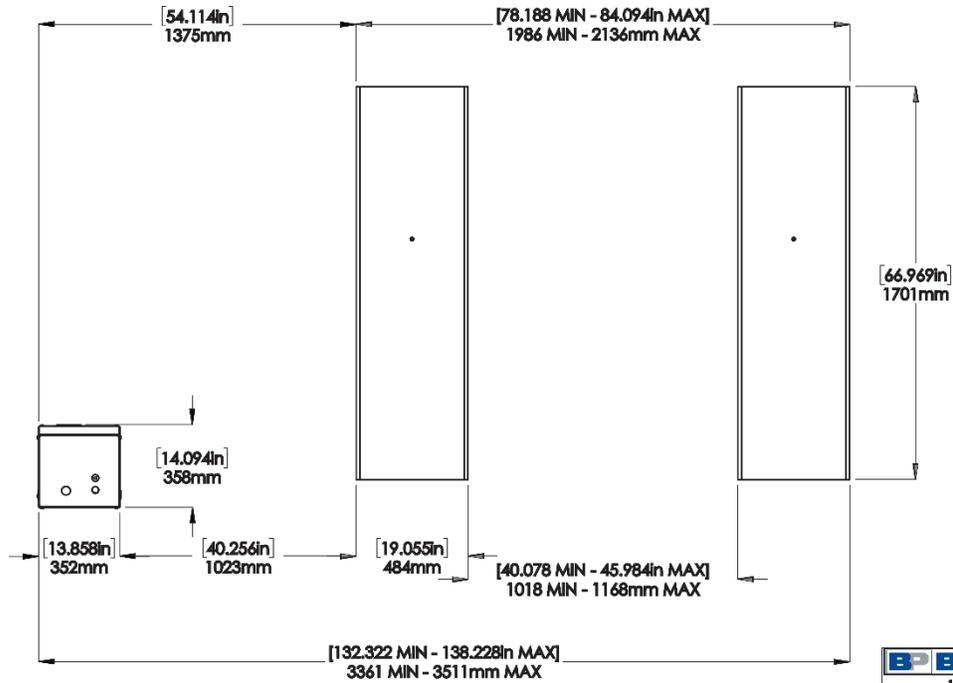
1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE: MDS-6LPF PRODUCTION LIFT VER B

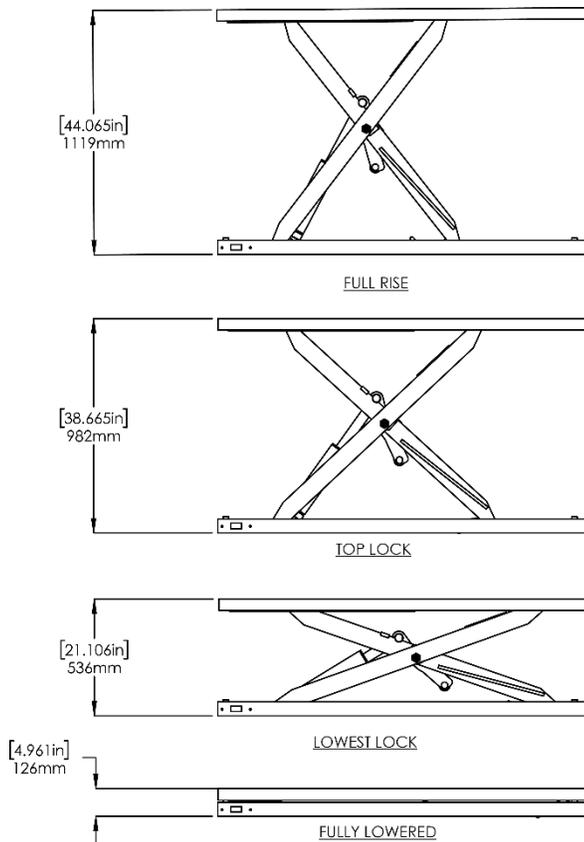
SIZE DWG. NO. REV

**A** 5260621 **B**

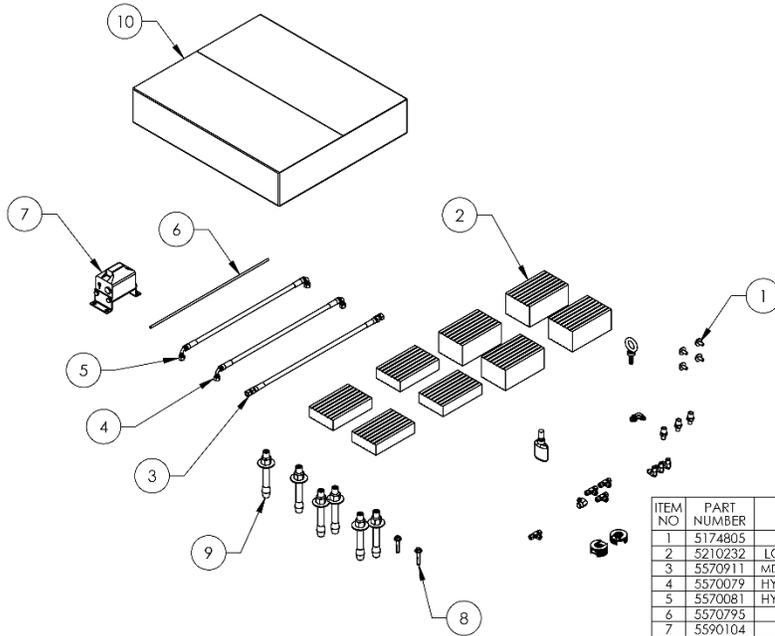
SCALE: 1:20 SHEET 2 OF 5



|   |          |              |
|---|----------|--------------|
| <b>BP BendPak.</b>                          |          |              |
| 1646 LEMONWOOD DR.<br>SANTA PAULA, CA 93060 |          |              |
| TITLE: MDS-6LPF PRODUCTION LIFT VER B       |          |              |
| SIZE: DWG. NO.                              | REV      |              |
| <b>A</b> 5260621                            | <b>B</b> |              |
| SCALE: 1:20                                 |          | SHEET 4 OF 5 |



|   |          |              |
|---|----------|--------------|
| <b>BP BendPak.</b>                          |          |              |
| 1646 LEMONWOOD DR.<br>SANTA PAULA, CA 93060 |          |              |
| TITLE: MDS-6LPF PRODUCTION LIFT VER B       |          |              |
| SIZE: DWG. NO.                              | REV      |              |
| <b>A</b> 5260621                            | <b>B</b> |              |
| SCALE: 1:20                                 |          | SHEET 3 OF 5 |



WHERE USED  
MDS-6LPF

NEXT ASSEMBLY  
5260621

| ITEM NO | PART NUMBER | DESCRIPTION                                       | QTY     | REV |
|---------|-------------|---|---------|-----|
| 1       | 5174805     | MDS-6EXTF/LPF PARTS BAG                           | 1       | F   |
| 2       | 5210232     | LOW RISE SCISSOR LIFT RUBBER PAD KIT, SET OF 8    | 1       | A   |
| 3       | 5570911     | MDS-6 SERIES HYDRAULIC HOSE ASSY Ø6.35 x 458mm DS | 1       | B   |
| 4       | 5570079     | HYDRAULIC HOSE ASSEMBLY Ø6.35 x 2212mm DB         | 1       | B   |
| 5       | 5570081     | HYDRAULIC HOSE ASSEMBLY Ø6.35 x 3352mm DB         | 1       | B   |
| 6       | 5570795     | 1/4" POLY-FLO TUBING                              | 9260mm* | --  |
| 7       | 5590104     | HYDRAULIC FLOW DIVIDER CAST IRON: ST              | 1       | --  |
| 8       | 5530326     | AB Ø3/8" x 2-1/4"                                 | 2       | --  |
| 9       | 5530307     | AB 3/4" x 5"                                      | 6       | --  |
| 10      | 5250064-1   | MDS-6LP/LPF PARTS BOX                             | 1       | --  |

DO NOT SCALE DRAWING

NAME: IM DATE: 01/31/2017  
DRAWN: IM  
CHECKED: OR DATE: 2/1/2021

**BendPak**  
1645 LEMONWOOD DR.  
SANTA PAULA, CA 93080

DIMENSIONS ARE IN MM

THIRD ANGLE PROJECTION

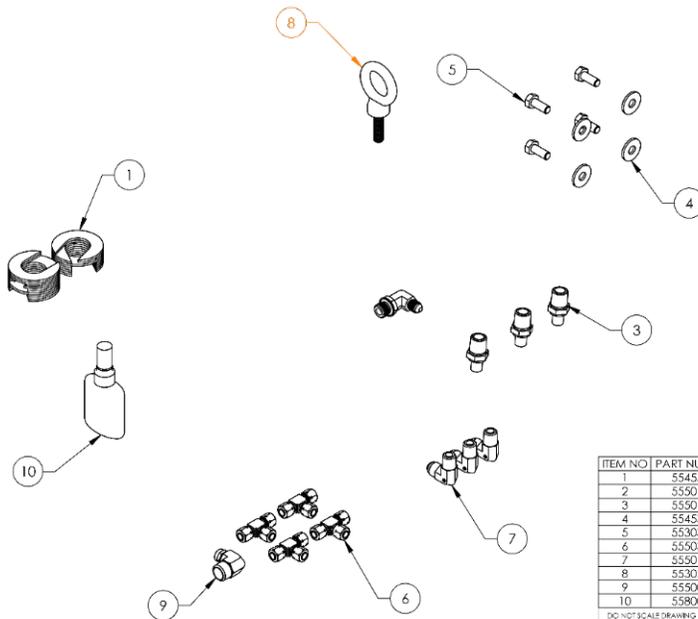
TITLE: MDS-6LPF PARTS BOX



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SIZE: A DWG. NO.: 5250064 REV: J

SCALE: 1:15 SHEET 1 OF 1



WHERE USED  
MDS-6EXTF  
MDS-6LPF

NEXT ASSEMBLY  
5250062  
5250064

| ITEM NO | PART NUMBER | DESCRIPTION                            | QTY | REV |
|---------|-------------|--|-----|-----|
| 1       | 5545535     | C WASHER SHIM FOR LIFTS                | 20  | --  |
| 2       | 5550103     | FIG ELB -04 JIC -06 ORB                | 1   | --  |
| 3       | 5550100     | FIG NPT -04 JIC x -06 NPT              | 3   | --  |
| 4       | 5545340     | WASHER M8 x 24 FLAT                    | 4   | --  |
| 5       | 5530304     | HHB M8 x 1.25 x 20                     | 4   | --  |
| 6       | 5550395     | FIG TEE -04 COMP x -04 COMP x -04 COMP | 4   | --  |
| 7       | 5550106     | FIG ELB -04JIC x 3/8" NPT              | 3   | --  |
| 8       | 5530788     | EYE M10 x 1.5 x 28 ID                  | 1   | --  |
| 9       | 5550089     | FIG ELB -04 COMP x -06 NPT             | 1   | --  |
| 10      | 5580012     | LIQUID PTFE THREAD SEALANT 50ml        | 1   | --  |

DO NOT SCALE DRAWING

NAME: IM DATE: 01/31/2017  
DRAWN: IM  
CHECKED: OR DATE: 1/14/2020

**BendPak**  
1645 LEMONWOOD DR.  
SANTA PAULA, CA 93080

DIMENSIONS ARE IN MM

THIRD ANGLE PROJECTION

TITLE: MDS-6EXTF/LPF PARTS BAG



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SIZE: A DWG. NO.: 5174805 REV: F

SCALE: 1:4 SHEET 1 OF 1

# Automotive Lift Institute (ALI) Store

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

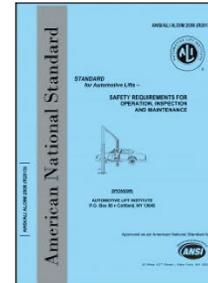
*The ALI Store is your trusted source for workplace safety!*



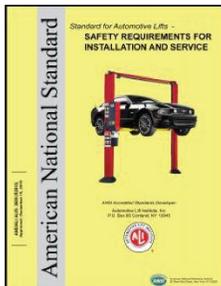
**Lifting It Right Online Certificate Course.** Make *sure* you and your people are lifting vehicles the right way.



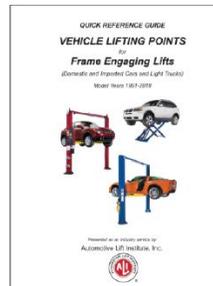
**KPA Online Training Subscription.** Get all of your people up to speed on automotive industry topics.



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



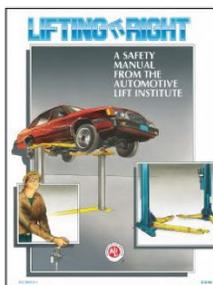
**ANSI/ALI ALIS Standard.** Safety Requirements for Installation and Service.



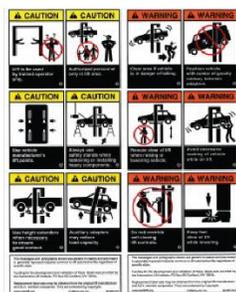
**Guide to Hitting Vehicle Lifting Points for Frame-Engaging Lifts.** Don't eyeball your lifting points, *know* where they are.



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



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



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



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

**Visit today and get the training and materials you need to work safely:**  
[www.autolift.org/ali-store/](http://www.autolift.org/ali-store/).









1645 Lemonwood Drive  
Santa Paula, CA 93060 USA