



# **Low-Rise Scissor Lift**

# **Installation and Operation Manual**

Manual P/N 5900075 — Manual Revision B — August 2021

# Models:

• I R-10000



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



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

**Manual.** LR-10000 Low-Rise Scissor Lift, *Installation and Operation Manual*, Manual Part Number 5900075, Manual Revision B, released August 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. You can always find the latest version of the **manual for your product on the BendPak website**.

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

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

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

- Follow all setup, operation, and maintenance instructions.
- Make sure product setup and use conforms to all applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.
- Read and follow all safety instructions. Keep them readily available for operators.
- Make sure all operators are properly trained, know how to safely operate the unit, and are properly supervised.
- Do not operate the product until you are certain all parts are in place and operating correctly.
- Carefully inspect the product on a regular basis and perform all maintenance as specified.
- Service and maintain the unit only with approved replacement parts.
- Keep all instructions permanently with the product and make sure all labels are clean and visible.
- Only use the Lift if it can be used safely!

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

Model: _			
Serial:			
_	Manufacture:		



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# Introduction

This Manual describes the LR-10000, which is low-rise, frame-engaging Lift designed and engineered for fast and easy wheel service. It is the perfect Lift for trucks and SUVs that many other Lifts cannot handle.

The LR-10000 can raise Vehicles up to 10,000 lbs. (4,536 kg). ALI certified.

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

This manual is mandatory reading for all LR-10000 users, including anyone who sets up, operates, maintains, or repairs it. 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.



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.

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

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

# **Shipping Information**

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

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

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

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

# **Safety Considerations**

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



**California Proposition 65**: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit **www. P65warnings.ca.gov**.

# **Important Safety Instructions**

- Read and understand all safety warning procedures before operating the Lift.
- Make sure all Operators read and understand the Installation and Operation Manual. Keep the Manual near the device at all times.
- The product is a Low-Rise Scissor Lift. Use it only for its intended purpose. Do not make any modifications to the product.
- The product must **only** be operated by authorized personnel.
- While the Lift is in use, only the operator may be within 30 feet of the Lift.
- When the Lift is in motion, keep people and body parts well away from it.
- Keep loads centered and balanced on the Platforms.
- Never exceed the rated capacity of the Lift.
- 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 boots, eye protection, back belts, and hearing protection are **mandatory**.
- Always wear safety glasses! Everyday glasses only have impact resistant lenses, they are not safety glasses.
- Keep hair, loose clothing, finders, and all body parts away from moving parts.
- Care should be taken as burns can occur from touching hot parts.

- Do not operate equipment with a damaged power cord or if the equipment has been dropped or damaged until it has been examined by a qualified service person.
- Do not let a cord hang over the edge of a table, bench, or counter or come in contact with hot manifolds or moving fan blades.
- If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- Always unplug equipment from the electrical outlet when not in use. Never use the cord to pull the cord from the outlet. Grasp plug and pull to disconnect.
- Let equipment cool completely before storing away. Loop cord loosely around the equipment when storing.
- To reduce the risk of fire, do not operate the equipment in the vicinity of open containers of flammable liquids (gasoline).
- To reduce the risk of fire or electric shock, never overload receptacles. Refer to the labels for the proper load on receptacles.
- To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
- Adequate ventilation should be provided when working on operating internal combustion engines.
- Consider the work environment. Keep the work area clean. Cluttered work areas invite injuries. Keep areas well lit.
- Always make sure the Safety Locks are engaged before attempting to work on or near a Vehicle.
- 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, visit 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, decals, or warning labels.
- BendPak recommends referring to the ANSI/ALI ALIS Standard (R2015) Safety Requirements for Installation and Service for more information about safely installing, using, and servicing your Lift.

## **Symbols**

Following are the symbols used in this manual:

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

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

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

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.

# **Frequently Asked Questions**

**Question**: How much weight can the LR-10000 raise?

**Answer**: The LR-10000 can raise Vehicles up to 10,000 pounds (4,536 kg).

Q: Can the LR-10000 be installed outside?

**A**: No. The LR-10000 is approved for indoor installation and use only. **Outdoor installation is prohibited**.

**Q**: Can I put the Power Unit Stand on either side of the LR-10000?

A: Yes. The Power Unit Stand can be located on either side of the Lift. The drawing on the previous page shows the Power Unit Stand on the left if you are looking at the Short Ramp end of the Lift.

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

**A**: This is not an intended use of the product. We strongly recommend against trying to raise a Vehicle that is heavier than the rated capacity.

**Q**: How many locking positions does my Lift have?

**A: Three**. This gives you multiple heights to which you can raise the Lift, so it is easy to find the right height for the work you are doing.

**Q**: What do the Safety Locks do?

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

Q: Which end of the LR-10000 is the "front"?

A: Neither. You can drive onto the Lift from either direction; there are ramps on both ends.

Q: The LR-10000 is described as "frame-engaging", what does that mean?

**A**: it means the Platforms (actually, the Lift Pad or Lift Extensions on the Platforms) contact the underside of the Vehicle to raise it, leaving the wheels free. Put another way, the Vehicle is **not** raised on its wheels, like a Vehicle on a Four-Post Lift.

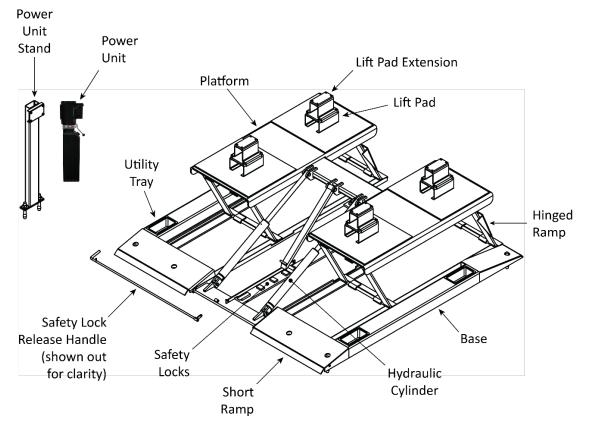
**Q**: Anything else I should be aware of?

**A**: Do **not** remove all four of a Vehicle's tires while it is on the LR-10000 and then lower the Vehicle all the way to the ground. It will go down, but it will have a hard time coming back up again. The Lift requires some space to build up enough upward force to raise a Vehicle.

# **Components**

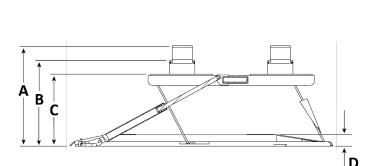
LR-10000 components include:

- **Power Unit**. Provides Hydraulic Fluid to the Hydraulic Cylinders, which they use to raise the Platforms. Connects to an external electric power source.
- **Power Unit Stand**. Holds the Power Unit. Provides Hydraulic Fluid and pressure to the Hydraulic Cylinders.
- **Hydraulic Hose Cover**. *Not shown*. Covers the Hydraulic Hoses as the routed from the Power Unit to the Frames.
- **Short Ramps**. Used to drive Vehicles onto or off of the Platforms.
- **Hinged Ramps**. Hinges up when the Platforms are raised. Located on the other end of the Lift from the Short Ramps. Can also be used to drive Vehicles onto or off of the Platforms.
- **Platforms**. Flat steel plates that raise and lower. The Lift Pads or Lift Pad Extensions, which sit on the Platforms, make contact with the underside of the Vehicle to raise and lower the Vehicle.
- **Base**. The bottom of the Lift, everything around the Platforms.
- **Utility Trays**. Built in to the Bases of the Lift, the Trays hold whatever you need them to hold.
- **Hydraulic Cylinders**. Push the Platforms up to raise a Vehicle, move down to lower a Vehicle.
- **Safety Locks**. Hold the Platforms in place while they are raised. The LR-10000 has **three** Safety Lock positions, which lets you select the right Platform height for your needs.
- Safety Lock Release Handle. Moves the Platforms off the Safety Locks when you want to lower the Lift. Must be on the same side of the Lift as the Long Hydraulic Hose and Power Unit Stand.
- **Lift Pads and Lift Pad Extensions**. Blocks that make contact with the lifting points on the Vehicle being raised. You can stack one Lift Pad Extension on one Lift Pad, but no more than that.

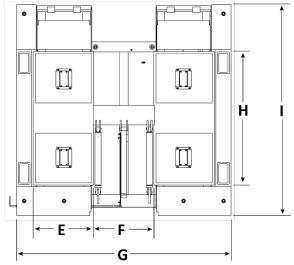


# **Specifications**

Side view



# Top view



Model	LR-10000
Lifting capacity	10,000 lbs. / 4,536 kg
A Lift height w/Lift Pad and Extension	32" / 810 mm
<b>B</b> Lift height w/Lift Pad	27.25" / 692 mm
C Lift height	23" / 581 mm
<b>D</b> Lowered height	4.5" / 113 mm
■ Platform width	24" / 610 mm
F Width between Platforms	24" / 608 mm
G Overall width	85" / 2,162 mm
H Platform length	53" / 1,344 mm
■ Overall length	83.5" / 2,124 mm
Maximum hydraulic pressure	2,650 PSI
Lifting time	~35 seconds
Motor	110 VAC, 220 VAC, 50/60 Hz, 1 Ph

## Specifications subject to change without notice.

# **Installation Checklist**

Following are the steps needed to install your LR-10000 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.
$\square$ 5. Make sure there is adequate Clearance on all sides of the Lift.
☐ 6. Select the Power Unit Stand location.
☐ 7. Create Chalk Line Guides.
☐ 8. Anchor the Bases.
☐ 9. Install the Safety Lock Release Handle.
☐ 10. Anchor the Power Unit Stand and Attach the Power Unit.
☐ 11. Learn about Hydraulic Fluid Contamination.
☐ 12. Learn about Liquid Thread Sealant.
☐ 13. Connect the Hydraulic Hoses.
☐ 14. Prepare the Power Unit ( <i>Electrician required</i> ).
$\square$ 15. Install a Power Disconnect Switch and Thermal Disconnect Switch ( <i>Electrician required</i> )
☐ 16. Review the Final Checklist.
☐ 17. Leave the Manual for the owner/operator.
☐ 18. Perform an Operational Test.

# **Installation**

This section describes how to install your LR-10000. Perform the steps in the order listed.

**⚠** WARNING

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

The LR-10000 is supplied with installation instructions and concrete fasteners that meet the criteria set by the latest version of the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV.

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

#### Safety Rules

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



MARNING Do not install this equipment unless you have automotive Lift installation training. Always use proper tools, such as a forklift or crane, to move heavy components. Do not install this equipment without reading and understanding this Manual and the safety labels on the unit. Keep the Manual near the device at all times.

BendPak recommends referring to the ANSI/ALI ALIS Standard (R2015) Safety Requirements for Installation and Service for more information about safely installing, using, and servicing your Lift.

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



MARNING You *must* wear OSHA-approved (Publication 3151) protective equipment at all times during the installation: leather gloves, steel-toed work 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.

**⚠** 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. This is generally done near the end of the installation. Note that installing the Power Unit and connecting the Power Unit are separate procedures; they are done at different times in the installation process. The Electrician must provide a Power cord and a Plug and connect them to the Power Unit.
- Install a Power Disconnect Switch. A Power Disconnect Switch gives you a way to shut down the Lift in the event of an electrical circuit fault or emergency situation. Refer to Install a Power Disconnect Switch for more information.
- Install a Thermal Disconnect Switch. A Thermal Disconnect Switch automatically shuts down the Lift in the event of an overload or an overheated motor. Refer to **Install a Thermal Disconnect Switch** for more information.

#### **Tools**

You may need some or all of the following tools:

- Rotary hammer drill or similar
- 3/4", 3/8", 1 1/4" masonry bits
- Hammer
- Open-end wrench set: 1/2", 15/16" 1 1/8"
- Socket and ratchet set, 1 1/8"
- Medium crescent wrench
- Chalk line
- Medium flat screwdriver
- Tape measure (25-foot recommended)
- Forklift or Shop Crane

#### **Select a Site**

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

- **Enough space**. Make sure there is adequate space on all sides, plus enough space above for the Vehicles you will be raising. See **Clearance Around the Lift** for more information.
- **Power Unit Stand**. The Power Unit Stand can go on either side of the Lift, up to 55 inches away.
- **Radial Shift**. When you raise the Lift, the geometry of the scissor arms moves the Platforms up at an angle, towards the Hinged Ramp end of the Lift. The amount of radial shift for the LR-10000 is approximately 12 inches. Note that radial shift is always the same direction, towards the Hinged Ramp end of the Lift, no matter which way the Vehicle is facing.
- Check for overhead obstructions. The site must be free of overhead obstructions.
- **Concrete specifications**. Do not install the Lift on cracked or defective concrete. Make sure the concrete is at least 4.25 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.
- **⚠ WARNING**

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

- **Power**. You will need a power source available near the Power Unit Stand. Use a 25 amp or greater fuse for a 208 240 VAC, 1 phase circuit.
- **Operating temperature**. The Lift is designed to be used between temperatures of 41° to 104°F (5° to 40°C).
- Outdoor installation. It is for indoor use only. *Outdoor installation is prohibited*. The Lift *cannot* be installed outside.
- **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**. Always wear protective gear (like safety goggles, helmet, heavy gloves, suitable working clothes, safety boots, ear protection, and so on) when installing the Lift. Do not wear loose clothing or jewelry; contain long hair; keep hair, clothing, and gloves away from moving parts.
- **⚠ WARNING**

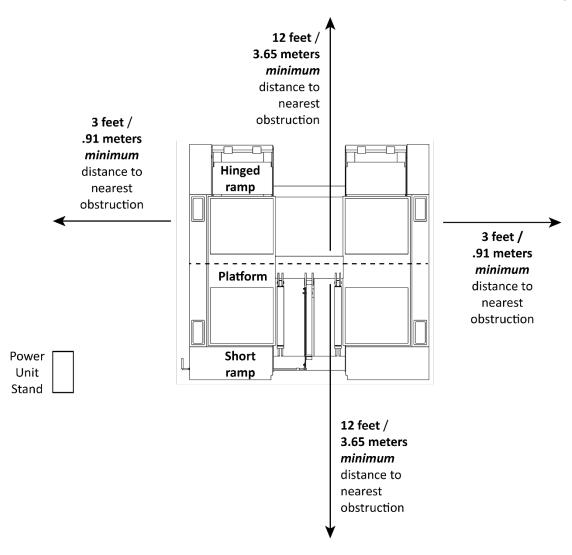
Always wear appropriate protective gear when installing the Lift.

#### Clearances around the Lift

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

You also need to make sure to leave enough space **above** the Vehicles you will be raising. Be sure to check for low-hanging obstructions such as hanging lights, beams, and so on. **Do not install the Lift under low-hanging obstructions**.

**Note**: The Power Unit Stand can be on either side of the Lift, but it must be on the Short Ramp end.



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

#### Select the Power Unit Stand Location

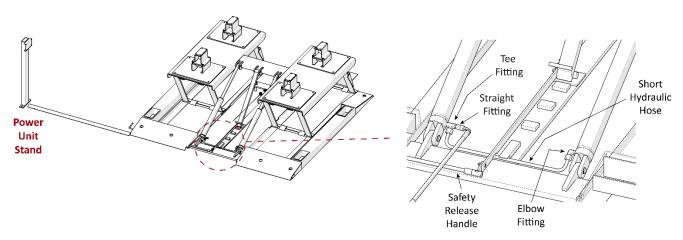
The Power Unit Stand can go on either side of the Lift, *up to* 55 in. / 1,397 mm away using the provided Hydraulic Hoses. *Operators must have a full, unobstructed view of the Lift and easy access to the Lift Controls at all times*.

Depending on the location you choose, you may need to make adjustments to the Hydraulic connections and Safety Release Handle.

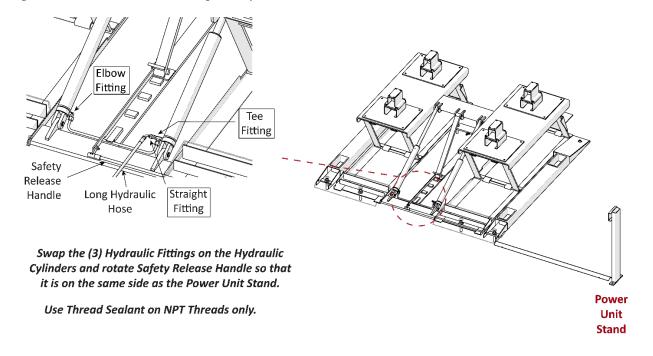
**Important**: The Safety Release Handle *must* be on the same side of the Lift as the Long Hydraulic Hose and Power Unit Stand.

**Note**: For the remainder of the installation process, we will illustrate the Power Unit Stand positioned on the **Left** side of the Lift. For Power Unit Stands on the *Right* side of the Lift, make the necessary changes listed below.

The following drawing shows the Power Unit Stand on the **Left** side of the Lift (*leave pre-installed Hydraulic connections as is*).



The following drawing shows the Power Unit Stand on the **Right** side of the Lift (**adjustments to hydraulic connections required**).



#### **Create Chalk Line Guides**

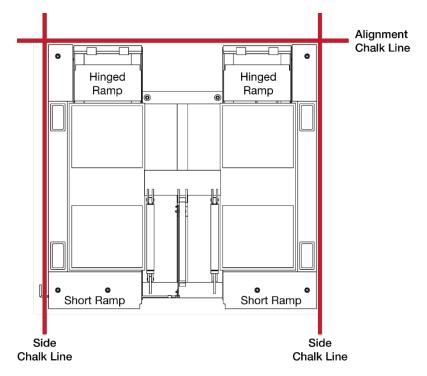
Make sure to plan out, in advance, where the LR-10000 is going to go:

- **Clearance**. Make sure there is enough clearance on all sides of the Lift site and above.
- **Power Unit Stand**. The Power Unit Stand can be installed on either side of the Lift (when looking at it from the Short Ramp end).
- Operator. The operator at the Power Unit Stand must have a full, unobstructed view of the Lift.
- **Power**. The Power Unit Stand must also be positioned near an appropriate power source.
- Set up Chalk Line Guides. Create Chalk Line Guides to make sure the Lift is properly aligned.

Refer to **Specifications** for the **Overall Width** and **Overall Length** measurements.

#### To create the Chalk Line Guides:

- 1. Decide where you want to locate the Lift.
- 2. Create an Alignment Chalk Line where you want one end of the LR-10000; make the Alignment Chalk Line longer than the **Overall Width** of the LR-10000.



Not all components shown. Neither the Safety Lock Release Handle nor the Power Unit Stand are taken into consideration when creating Chalk Line Guides.

- 3. Create two Side Chalk Lines, one on each side of the Lift; make the Side Chalk Lines longer than the **Overall Length** of the Lift.
- 4. Move the Lift into position: one end just inside the Alignment Chalk Line and the two sides just inside the two Side Chalk Lines.
- 5. When the Platforms are in the correct location, they can be anchored into place.



Before anchoring the Lift, make sure there is an appropriate location for the Power Unit Stand: close to a power source and within reach of the provided Hydraulic Hoses.

#### **Anchor the Bases**

Anchoring the Bases provides stability to hold the Vehicles you raise firmly in place.

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

Anchor Bolt specifications are:

Length: 4.75 inchesDiameter: .75 inch

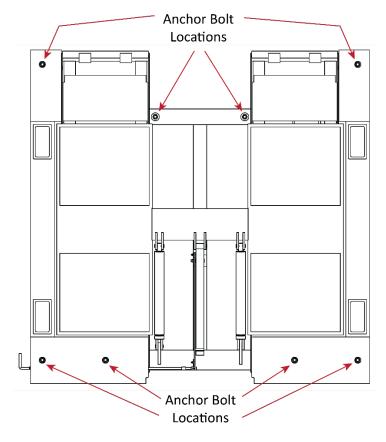
• **Effective embedment depth**: 2.75 inches, minimum

• **Anchor torque**: 85-95 pound feet (do *not* torque less than 80 or more than 105)

#### **⚠ WARNING**

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

The following drawing shows the locations of the Anchor Bolt holes in the **LR-10000**.

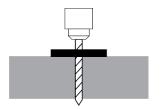


Top view. Not necessarily to scale. Not all components shown.

#### To anchor your LR-10000:

- 1. Make sure the Lift is in the correct location.
- 2. Using the eight holes in the Base as guides, drill the **4 inch** deep holes for the Anchor Bolts.

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



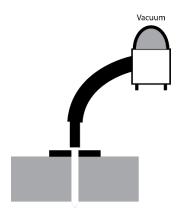
When drilling, go in straight; do not let the drill wobble.

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

The diameter of the drill bit **must** be the same as the diameter of the Anchor Bolt. So if you are using a .75 inch diameter Anchor Bolt, for example, use an .75 inch diameter drill bit.

⚠ WARNING You must wear the proper safety glasses and hand gloves.

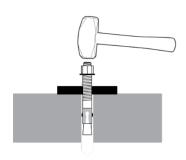
3. Use a vacuum to thoroughly clean each hole.



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

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

4. Make sure the Washer and Nut are in place (you want approximately 1/4 inch to 1/3 inch — 6 to 8 mm — of thread visible above the nut), then insert the Anchor Bolt into the hole.

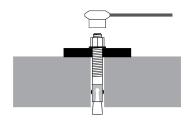


The Expansion Sleeve of the Anchor Bolt may prevent the Anchor Bolt from passing through the hole in the Base; this is normal. Use a hammer or mallet to get the Expansion Sleeve through the Base and down into the hole.

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

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

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



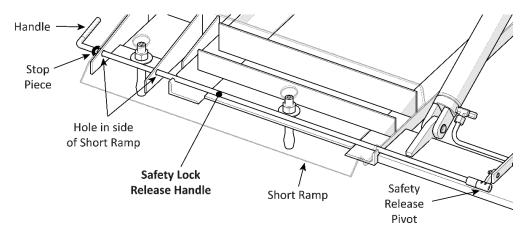
**Important**: Do *not* use an impact wrench to torque the Anchor Bolts.

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

#### **Install the Safety Lock Release Handle**

This section describes how to install the Safety Lock Release Handle, which moves the Safety Lock Bar up so the Safety Locks cannot engage, allowing the Lift to be lowered back down to the ground.

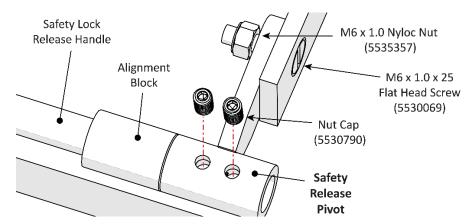
The following drawing shows the necessary components for installing the Safety Lock Release Handle.



Short Ramp end of the Lift shown, closest to the Power Unit Stand. Not drawn to scale. Not all components are shown.

#### To install the Safety Lock Release Handle:

- 1. Find the Safety Lock Release Handle, the Safety Release Pivot, two Nut Caps, a Bolt, and Nut.
- 2. Push the Safety Lock Release Handle through the hole on the left side of the Short Ramp until it comes out the hole on the right side of the Short Ramp.
- 3. Push on the Handle to guide the Safety Lock Release Handle through the Alignment Block.
- 4. Keep pushing until the Stop Piece is up against the left side of the Short Ramp.
- 5. **Moving to the other end of the Safety Lock Release Handle**, slip the Safety Release Pivot over the end of the Safety Lock Release Handle coming out of the Alignment Block.
- 6. Put on the Bolt and Nut to secure the Safety Release Pivot; finger tighten the Nut.
- 7. Put the Nut Caps into place via the holes in the Safety Release Pivot; finger tighten the Nut Caps.



Close-up of the connections to make to Safety Release Pivot. Not all components are shown.

- 8. Move the Handle of the Safety Lock Release Handle up and back to make sure it is working.
- 9. Use the appropriate tools to fully tighten the Nut and the Nut Caps.

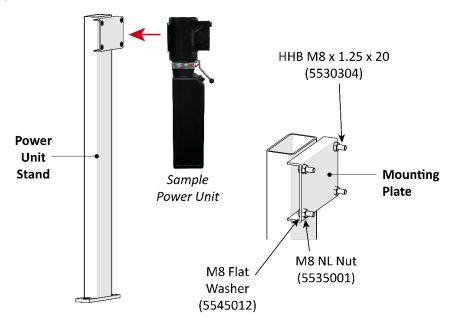
#### Anchor the Power Unit Stand and attach the Power Unit

The Power Unit Stand can be on the left or right side of the Lift (looking at the Short Ramp end) up to 55 inches / 1,346 mm away from the Lift.

The Power Unit Stand **must** be anchored. It cannot support the weight of the Power Unit unless it is anchored in place.

**Note**: Attaching the Power Unit to the Power Unit Stand *does not involve any wiring* and so you do not need an Electrician. Later, when you connect the Power Unit to a power source, then an Electrician is *required*.

The following graphic shows how to connect the Power Unit to the Power Unit Stand.



Not drawn to scale. Not all components are shown.

#### To anchor the Power Unit Stand and attach the Power Unit:

- 1. Select an appropriate site for the Power Unit Stand.
  - The Operator **must** have a full, unobstructed view of the Lift, the Stand needs to be within 55 inches from the side of the Lift, and there needs to be an appropriate power source nearby.
- 2. Find the Power Unit Stand and the two Anchor Bolts (.75" wide, 4.75" deep, same size as the Anchor Bolts holding down the Lift).
- 3. Using the holes in the Base of the Power Unit Stand as a guide, drill two holes .75" wide by 4" deep into the concrete.
  - Go in straight; do not let the drill wobble. Use a carbide bit (conforming to ANSI B212.15).
- 4. Remove all dust from the holes.
  - Use a wire brush, vacuum, hand pump, or compressed air. Do *not* ream the hole. Do *not* make the hole any wider than the drill bit made it.
- 5. Insert an Anchor Bolt with Washer into each hole, then tap it down into the hole.
- 6. Turn the Anchor Bolt *clockwise* to the recommended installation torque, 85-95 pound feet, using a Torque Wrench.
- 7. **Switching over to the Power Unit**, locate the Power Unit and the supplied hardware.

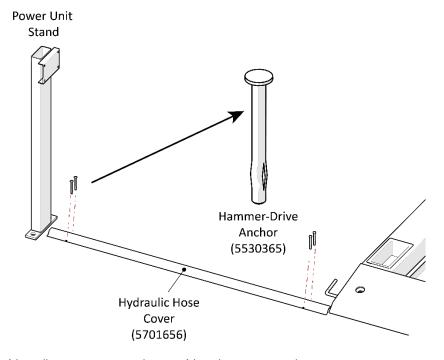
- ⚠ CAUTION The Power Unit Stand must be anchored in place before attaching the Power Unit.
- 8. Have one person hold the Mount Plate on the back of the Power Unit next to the Connection Plate at the top of the Power Unit Stand.
- 9. Have the second person finger tighten the four Nuts, Bolts, and Washers into place.
- 10. Use an appropriate tool to securely tighten the Nuts, Bolts, and Washers.

#### **Anchor the Hydraulic Hose Cover**

The Hydraulic Hose Cover protects the Hydraulic Hose from being tripped or stepped on. Dimensions for the Cover are **54 inches** / **1,372 mm** long and **3 inches** / **81 mm** wide.

The following procedure includes instructions for anchoring the Hydraulic Hose Cover in place. If you prefer, you can defer anchoring the Hydraulic Hose Cover to prevent interference with other parts of the installation process. When you are ready, simply return to this section.

The following graphic shows the general arrangement of the Hydraulic Hose Cover.



Not all components shown. Not drawn to scale.

#### To anchor the Hydraulic Hose Cover:

- 1. Locate the Hydraulic Hose Cover (5701656) and the four Hammer-Drive Anchors (5530365) included in the Parts Box.
- 2. Place the Hydraulic Hose Cover in between the Power Unit Stand and the edge of the Lift.
- 3. Using the holes on the Hydraulic Hose Cover as a guide, drill each hole **2 inches / 51 mm** deep.
- ▲ WARNING You must wear the proper safety glasses and hand gloves.
- 4. Use a vacuum to thoroughly clean each hole.
- 5. Hammer or mallet the Anchor into the hole; stop hammering when the top of the Anchor is flush with the Cover; do the same for the remaining Anchors.



#### 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.

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 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<sup>™</sup> 5452 thread sealant is recommended for all NPT Fittings. Do not over tighten NPT Fittings or they may crack. Never use thread seal tape on JIC 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 the Hydraulic Hoses. As a general rule, keep the Hydraulic Hoses and Fittings capped and kept clean in a clean area until ready for use.
- **Filter the new Hydraulic Fluid**. Just because it is new does not necessarily mean it is *clean*. Use an offline filtration cart or kidney loop system to make sure the Hydraulic Fluid is clean before being transferred into the Hydraulic Fluid Reservoir (even using a heavy duty nylon mesh screen is better than trusting what is left at the bottom of the barrel).
- Avoid mixing different types of Hydraulic Fluid. If Hydraulic Fluid needs to be replaced, make sure to flush the Hydraulic System of the old Hydraulic Fluid before you add the replacement Fluid; do not mix the two together.

#### **About Thread Sealants**

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

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

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



#### To apply Thread Sealant:

- Make sure the Fittings and connectors you are going to use are clean and dry.
   If you are adding Thread Sealant to a Fitting or connector that has already been used with a different sealant, use a wire brush to thoroughly remove the old sealant before adding more.
- 2. Skipping the top thread, apply a small amount of Thread Sealant to the first four threads of the Fitting.
- **⚠ WARNING** Always wear the proper protective equipment when handling Thread Sealant.

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

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

- 3. Tighten the Fitting into the connector; do **not** over tighten the Fitting.
- 4. Allow minimum 24 hours of curing time before pressurizing the system.

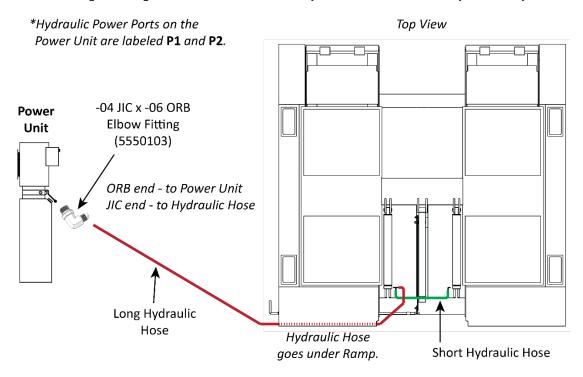
## **Connect the Hydraulic Hoses**

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

# The Short Hydraulic Hose, and the two Hydraulic Fittings that go on either end of it, come installed from the factory.

**Note**: The drawings in this section show the Power Unit Stand on the **Left** side of the Lift. If you installed it on the *Right* side of the Lift, modify the instructions to fit your configuration. See **Select the Power Unit Stand Location** for more information.

The following drawing show how to route the Hydraulic Hoses to the Hydraulic Cylinders.

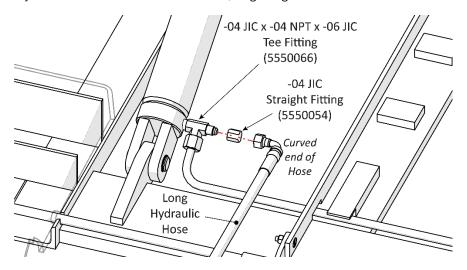


Power Unit shown on the left of the Lift (looking at the Short Ramp end). Drawing not necessarily to scale. Some components not shown, other components exaggerated for clarity.

#### To connect the Hydraulic Hoses:

- 1. Locate the Long Hydraulic Hose and the Elbow Hydraulic Fitting (5550103).
- 2. **Starting at the Power Unit**, remove the Shipping Plug from one of the two Hydraulic Power Ports on the Power Unit. It does not matter which one you use; they are labeled **P1** and **P2**.
  - The Hydraulic Power Ports are shown in the drawing in **Preparing the Power Unit**.
- 3. Attach the Elbow Hydraulic Fitting (5550103) to the Hydraulic Power Port you want to use. The ORB end goes to the Power Unit, the JIC end to the Long Hydraulic Hose.
- 4. **Switching to the Long Hydraulic Hose**, attach the straight end of the Long Hydraulic Hose to the Elbow Hydraulic Fitting on the Power Unit; *finger tighten the connection*.
- 5. Route the Long Hydraulic Hose under the Short Ramp, as shown in the drawing above.

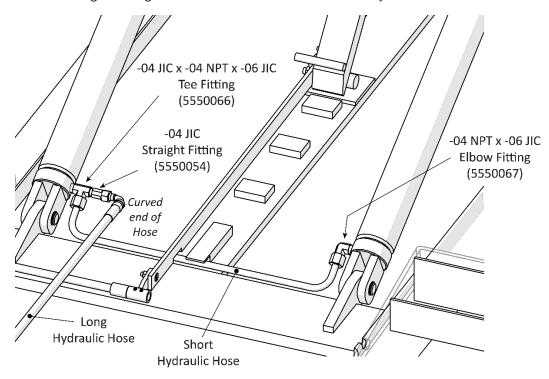
6. Attach the curved end of the Long Hydraulic Hose to the Tee Fitting (5550066) on the Hydraulic Cylinder closest to the Power Unit; *finger tighten the connection*.



Drawing shows a close up of the connections to the Tee Fitting. Not necessarily to scale.

7. **Switching to the Short Hydraulic Hose**, make sure it is in position and that both ends are connected to the Hydraulic Fittings that link the Hydraulic Cylinders together.

The following drawing shows the connections the Short Hydraulic Hose makes.



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

8. Make sure both Hydraulic Hoses are correctly routed, then use appropriate tools to securely tighten all connections.

#### **Preparing the Power Unit**

The Power Unit comes fully assembled from the factory. You need to attach it to the Power Unit Stand (already done, as described in **Anchor the Power Unit Stand and Attach the Power Unit**), connect it to a power source, and fill the Hydraulic Fluid Reservoir with Hydraulic Fluid.

The Power Unit for the LR-10000 is 208–240 VAC, 50/60 Hz, 1 phase. The Hydraulic Fluid Reservoir holds about **5.65 liters** (**1.5 gallons**) of **Hydraulic Fluid**.

The Lift uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them once the unit is connected to a power source.

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

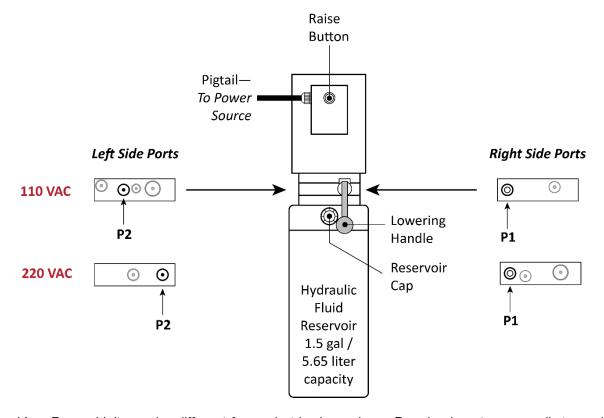
Refer to **Wiring Diagrams** for wiring information.

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

The Power Unit has multiple connections:

- **Hydraulic Hose**. The Hydraulic Hose should already be connected to the Power Unit. If it is not, refer to **Connect the Hydraulic Hoses** for more information.
- **Power Source**. The Power Unit has to connect to an appropriate power source.

The following drawing shows the Power Unit of the LR-10000.



Your Power Unit may be different from what is shown here. Drawing is not necessarily to scale.

#### To connect to a Power Source and add Hydraulic Fluid:

- 1. Have the Electrician locate the Pigtail coming out of the Electrical Box on the Power Unit.
- 2. Open the Electrical Box, remove the Pigtail, and then wire a Power Cord (with an appropriate Plug) inside the Electrical Box to the wiring that was connected to the Pigtail.

The Electrician needs to provide the Power Cord and Plug; these are **not** supplied with the Lift. Refer to **Wiring Diagrams** for wiring information.

#### **A** DANGER

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

Important electrical information:

- Improper electrical installation can damage the Power Unit motor; this damage is not covered by the warranty.
- If you have multiple Power Units, use a separate circuit breaker for each Power Unit.
- Protect each circuit with a time-delay fuse or circuit breaker. For a 110 VAC, 1 phase circuit, use a 15 amp or greater fuse. For a 220 VAC, 1 phase circuit, use a 25 amp or greater fuse.
- 3. Fill the Hydraulic Fluid reservoir.

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

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

**⚠ WARNING** 

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



Always wear gloves when handling Hydraulic Fluid; do not touch Hydraulic Fluid with bare hands.

#### **Install a Power Disconnect Switch**

**⚠ WARNING** 

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

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

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

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

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

**⚠ DANGER** 

Installing a Power Disconnect Switch **must** be performed by a licensed, certified Electrician in accordance with national and local electrical codes.

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

#### **Install a Thermal Disconnect Switch**

**↑** WARNING

NG The motor on the LR-10000 Power Unit has no thermal overload protection.

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

**⚠** DANGER

Installing a Thermal Disconnect Switch *must* be performed by a licensed, certified Electrician in accordance with 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 current that exceeds the motor's full load amps (FLA) rating may result in permanent damage to the motor. **Do not exceed the rated duty cycle of the motor.** 

#### **Final Checklist Before Operation**

Make sure the following items have been done before using your Lift:

- Review the Installation Checklist to make sure all steps have been performed.
- Make sure the Power Unit is getting power from the power source.
- Check the Hydraulic Fluid reservoir; it must be full of approved Hydraulic Fluid or automatic transmission fluid. You can harm the motor by running it without enough fluid.
- Check the Hydraulic System for leaks. Verify all Hydraulic Hose connections, Hydraulic Fittings, and Auxiliary Port Plugs on the Lift and Power Unit are tight.
- Check to see that all Anchor Bolts are appropriately shimmed and correctly torqued.
- Make sure that all Safety Locks are cleared and free.

# Leave the Manual with the Owner/Operator

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



#### **Test the Lift**

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



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

#### To test your Lift:

- 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 over the Platforms and situate it correctly.

# **⚠** CAUTION

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

- 4. Put the Vehicle in park, put on the parking brake, and turn off the Vehicle. If the Vehicle is a manual transmission, put it into first gear before turning it off.
- 5. Walk around the Vehicle and make sure there are no obstructions or any other issues that will interfere with the raising of the Platforms.
- 6. Locate the manufacturer's recommended Lifting Points for the Vehicle you are raising.

  If you are unsure where the Lifting Points are, consult *Vehicle Lifting Points for Frame Engaging Lifts*, which was provided with the Lift, or the manufacturer of the Vehicle. If you no longer have *Vehicle Lifting Points for Frame Engaging Lifts*, you can get a replacement on the ALI website.

## **⚠ WARNING**

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

- 7. Put the Lift Pads under the Vehicle so that they are *directly under* the Lifting Points for the Vehicle you are raising.
  - If necessary, use the included Lift Pad Extensions for extra height. You can also stack them.
- 8. On the Power Unit, press and hold the **Raise** button to raise the Lift until **just before** the Lift Pads make contact with the Lifting Points on the underside of the Vehicle.
- 9. Check to make sure the Lift Pads will make solid contact with the Lifting Points when raised further, adjust them if necessary.
- 10. Raise the Lift until the tires of the Vehicle are a few inches off the ground.
- 11. Stop and visually check the Lift Pads are making solid contact with the Lifting Points.
  If any of the Lift Pads are *not* making solid contact with the Lifting Points, lower the Lift and adjust the Lift Pads so that they make better contact.
- 12. Gently rock the Vehicle to make sure the Vehicle is stable and balanced.

If the Vehicle is **not** stable and balanced, lower the Lift back to the ground and start over.

If the Vehicle *is* stable and balanced, it is safe to raise further.

#### **⚠** 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.

- 13. On the Power Unit, press and hold the **Raise** button.
- 14. Watch the Vehicle and the Platforms as they rise.

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

- 15. When the Platforms are *just past* the desired height, release the **Raise** button.
- 16. Press the Lowering Handle on the Power Unit to move the Platforms back down a bit, which engages them on the most recently passed Safety Lock.
  - If you miss the Safety Lock, press and hold **Raise** again and go somewhat further past the Safety Lock, then hold the Lowering Handle again to engage the Lift on the Safety Lock.
- 17. To lower the Lift back down to the ground, pull up on the Safety Lock Release Handle, then press and hold the Lowering Handle until the Lift is fully lowered.

If the Lift was shaking, moving erratically, or squeaking, raise and lower the Lift again to help bleed the Hydraulic System.

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

# **Operation**

This section describes how to operate your Lift.

**⚠ WARNING** 

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

#### **Lift Operation Safety**

BendPak recommends referring to the latest version of the ANSI/ALI ALIS Standard (R2015) *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing your Lift.

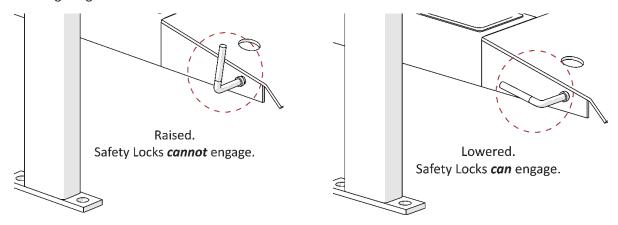
Before you raise or lower a Vehicle using your Lift, do the following each time:

- **Check the Lift**. Check the Lift for any missing, heavily worn, or damaged parts. Do not operate the Lift if you find any issues; instead, take it out of service, then contact your dealer, email **support@bendpak.com**, visit **bendpak.com/support**, or call **(800) 253-2363**, x196.
- **Check the area**. Check the area around the lift for obstructions; anything that might block the Lift. Do not forget to check **above** the Lift. If you find an obstruction, move it out of the way.
- **Check the operators**. Make sure everyone who is going to operate the Lift has been trained in its use, has read the labels on the unit, and has read the manual. Only the operator at the Console should be within 30 feet of the Lift when it is in motion.
- Check for safety. Make sure everyone who is going to be walking near the Lift is aware of its presence and takes appropriate safety measures. Only put Vehicles on the Lift. When raising the Lift, do not leave it until it is engaged on a Safety Lock. When lowering the Lift, do not leave it until it is fully lowered. Do not allow children or untrained personnel to operate the Lift. Do not allow anyone under the influence of drugs or alcohol to operate the Lift.
- **Check the Vehicle**. Never exceed the Lift's weight rating. Do not allow people inside a Vehicle you are going to raise. Before raising it, 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.

#### **Lift Controls**

The controls on the Lift are:

- **Raise button**. Moves the Platforms up. Located near the top of the Power Unit. Shown in the Power Unit drawing in **Preparing the Power Unit**.
- **Lowering Handle**. Moves the Platforms down. Located near the middle of the Power Unit. Shown in the Power Unit Drawing in **Preparing the Power Unit**.
- Safety Lock Release Handle. When lowered, allows the Safety Locks to engage. When
  raised, prevents the Safety Locks from engaging. Lowered and raised positions shown in the
  following diagram.



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

#### **About Safety Locks**

Your Lift comes with three Safety Lock positions; they serve two important functions:

• **Safety**. Safety Locks hold the Platforms in place. Once the Platforms are engaged on Safety Locks, the weight of the Vehicle holds the Platforms in place. If the power goes out, the Safety Locks continue to hold the Platforms, and anything on them, in place.

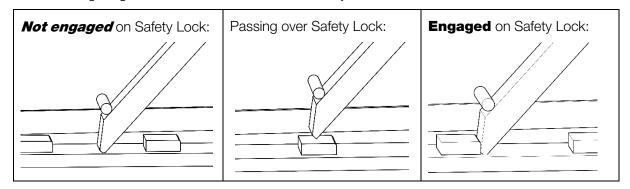
#### **A WARNING**

# **Always leave your Lift engaged on a Safety Lock or fully lowered.**Although rare, it is possible for Hydraulic Fluid in the Hydraulic Cylinders to leak,

causing the Platforms to slowly come down. **Adjustable height**. Having multiple Safety Lock positions means you can raise the Vehicle to

The following diagram is a side view of various Safety Lock conditions.

just the right height for the work you are performing.



#### Raising a Vehicle

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

#### To raise a Vehicle:

1. Check the items listed in **Lift Operation Safety**.

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

#### Only use the Lift if it can be used safely.

- 2. Make sure both Platforms are fully lowered.
- 3. Drive the Vehicle over the Platforms and situate it correctly.

## **⚠** CAUTION

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



Do not park the Wheels directly on the Lift Pads.





- 4. Put the Vehicle in park, put on the parking brake, and turn off the Vehicle. If the Vehicle is a manual transmission, put it into first gear before turning it off.
- 5. Walk around the Vehicle and make sure there are no obstructions or any other issues that will interfere with the raising of the Platforms.
- 6. Locate the manufacturer's recommended Lifting Points for the Vehicle you are raising.
  - If you are unsure where the Lifting Points are, consult *Vehicle Lifting Points for Frame Engaging Lifts*, which was provided with the Lift, or the manufacturer of the Vehicle. If you no longer have *Vehicle Lifting Points for Frame Engaging Lifts*, you can get a replacement on the ALI website.



Do not 'eyeball' the best location for the Lift Pads. *The Lift Pads must hit the manufacturer's recommended Lifting Points*, if they do not, the Vehicle could become unstable and fall, which could damage the Vehicle, damage the Lift, or injure or even kill anyone under or near the Vehicle.

- 7. Put the Lift Pads under the Vehicle so that they are *directly under* the Lifting Points for the Vehicle you are raising.
  - If necessary, use the included Lift Pad Extensions for extra height.
- 8. On the Power Unit, press and hold the **Raise** button to raise the Lift until **just before** the Lift Pads make contact with the Lifting Points.
- 9. Check to make sure the Lift Pads will make solid contact with the Lifting Points when raised further; adjust them if necessary.
- 10. Raise the Lift until the tires of the Vehicle are a few inches off the ground.
- 11. Visually check to make sure the Lift Pads are making solid contact with the Lifting Points.

If any of the Lift Pads are **not** making solid contact with the Lifting Points, lower the Lift and adjust the Lift Pads so that they make better contact.

12. Rock the Vehicle to make sure the Vehicle is stable and balanced.

If the Vehicle is **not** stable and balanced, lower the Lift back to the ground and start over.

If the Vehicle *is* stable and balanced, it is safe to raise further.

#### **A** 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.

- 13. On the Power Unit, press and hold the **Raise** button.
- 14. Watch the Vehicle and the Platforms as they rise.

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

- 15. When the Platforms are just past the desired height, release the **Raise** button.
- 16. Press the Lowering Handle to move the Platforms back down, which engages them on the most recently passed Safety Lock.

If you miss the Safety Lock, press and hold **Raise** again and go somewhat further past the Safety Lock, then hold the Lowering Handle again to engage the Lift on the Safety Lock.

#### Lowering a Vehicle

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

#### To lower a Vehicle:

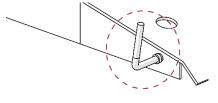
Check the items listed in Lift Operation Safety.

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

#### Only use the Lift if it can be used safely.

- 2. Press and hold the **Raise** button for a second or two, to move the Platforms off the Safety Lock.
- 3. Move the Safety Lock Release Handle to the Raised position.

This pushes the Safety Lock Bar up, allowing the Safety Locks to be passed by.



Raised.
Safety Locks *cannot* engage.

- 4. Press and hold the Lowering Handle.
- 5. Release the Lowering Handle when the Lift is fully lowered.
- 6. Move the Safety Lock Release Handle back to the Lowered position.
- 7. Carefully drive the Vehicle off.

# **Maintenance**

#### **⚠** DANGER

Before performing any maintenance, make sure the Lift is completely disconnected from power and *cannot* be re-energized until all maintenance is complete. BendPak strongly recommends using your Power Disconnect Switch during maintenance. If your organization has Lockout/Tagout policies, make sure to implement them during all maintenance.

#### To maintain your Lift:

- **Daily**: Keep the Lift clean. Wipe up any oil spills, clean any dirt.
- **Daily**: Make a visual inspection of all moving parts and check for damage or excessive wear. If you find any damaged or worn parts, take the Lift out of service until they are replaced.

#### **⚠ DANGER**

If a Vehicle is raised when you notice the damage or extreme wear, very carefully lower the Vehicle to the ground. When the Lift is on the ground, take it out of service, disconnect it from power, and make arrangements to fix the damage or wear. Service and maintain the unit only with factory-approved replacement parts.

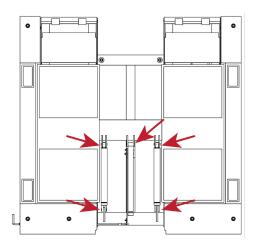
- Daily: Make sure the Safety Locks are in good operating condition. If you find that the Safety
  Locks are damaged or excessively worn, take the Lift out of service until they are replaced. Do
  not use your Lift if the Safety Locks are damaged or excessively worn.
- **Weekly**: Check all controls to make sure they are functioning normally.
- Weekly: Check all labels on the unit. Replace them if they are illegible or missing.
- **Monthly**: Lubricate the grease fittings. We recommend using white lithium grease or similar.
- **Monthly**: Check the Power Unit's Hydraulic Fluid levels. Refill if low.
- Every two months: Check all Anchor Bolts to make sure they are tight. If not, tighten them.

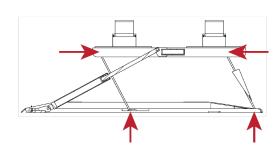


Do not operate your Lift if you find issues; instead, take the Lift out of service, then contact your dealer, email **support@bendpak.com**, visit **bendpak.com/support**, or call **(800) 253-2363**, extension 196.

#### Lubrication

The following drawing shows the lubrication points for the Lift. Note that some lubrication points are under other parts of the Lift.





# **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.	
Platforms do not go up or down.	Make sure the Power Unit is connected to an appropriate power source.	
	Make sure the Hydraulic Hoses are not pinched or leaking.	
	Make sure there is sufficient Hydraulic Fluid in the reservoir on the Power Unit.	
Vehicle with no tires is fully lowered, Lift will not go up.	Too much weight on the Frames; no room to get upward motion started. Refer to <b>Vehicle with No Tires Fully Lowered</b> .	
Hydraulic Fluid is old or dirty.	Replace the dirty fluid with clean, approved Hydraulic Fluids, such as Dexron III, Dexron VI, Mercon V, Mercon LV, Shell Tellus S4 / S3 / S2, or comparable.	
Platforms make odd noises when in use.	Lubricate hinge points using white lithium grease.	
Platforms are slowly lowering on their own.	Make sure both Platforms are engaged on Safety Locks (if not, Hydraulic Fluid could be leaking out, lowering the Platforms). Only leave the Lift either fully lowered or engaged on a Safety Lock.	

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

## **Vehicle with No Tires Fully Lowered**

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

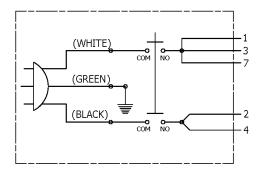
Methods that have fixed this issue include:

- Use a floor jack to raise the Vehicle from four to six inches, giving enough room to get upward force started
- Use lifting equipment to raise the Vehicle off the Frames

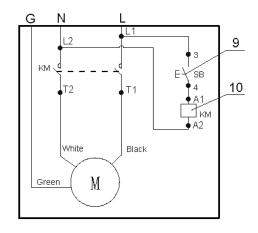
If you are still unable to raise your Vehicle, contact Technical Support for assistance.

# **Wiring Diagrams**

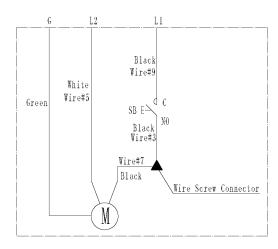
#### 5585094 (110 VAC)



#### 5585021 (220 VAC)



# 5585010 (220 VAC)



This wiring diagram shows the United States color codes for the three wires in the Pigtail that comes out of the electrical box on the Power Unit:

Black: LiveWhite: LiveGreen: Ground

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

Brown: LiveBlue: Neutral

Green/Yellow: Ground

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

**⚠ WARNING** 

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

# **Labels**





C



B





SAFETY INSTRUCTIONS: IF ATTACHMENTS, ACCESSORIES OR CONFIGURATION MODIFYING COMPONENTS THAT ARE LOCATED IN THE LOAD PATH, AFFECT OFERATION OF THE LIFT, AFFECT THE LET LECTRICAL LISTING OR AFFECT INTENDED YOHIGLE 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 PETRINING TO CERTIFIED ATTACHMENTS, ACCESSORIES OR CONFIGURATION MODIFYING COMPONENTS.

BENDPAK LIFTS ARE SUPPLIED WITH CONCRETE FASTENERS MEETING THE CRITERIA AS PRESCRIBED BY ASTM EARS -89(2003), LIFT BUYERS ARE RESPONSIBLE FOR ANY SPECIAL REGIONAL STRUCTURAL ANDOR SEISMIC ANCHORING REQUIREMENTS SPECIFIED BY ANY OTHER AGENCIES ANDOR CODES SUCH AS THE UNIFORM BULLDING CODE (USC) ANDOR INTERNATIONAL BULLDING CODE (BC).

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

DO NOT REMOVE

ENGINEERED BY BENDRAW INC. USA

MADE IN CHINA

D





E

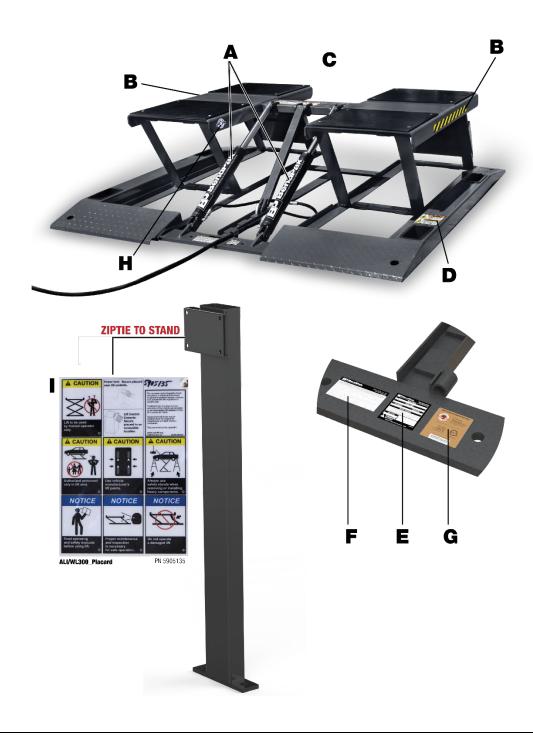


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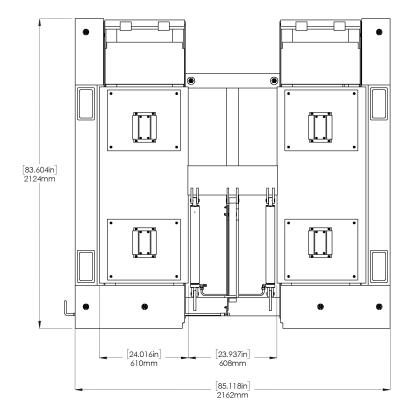


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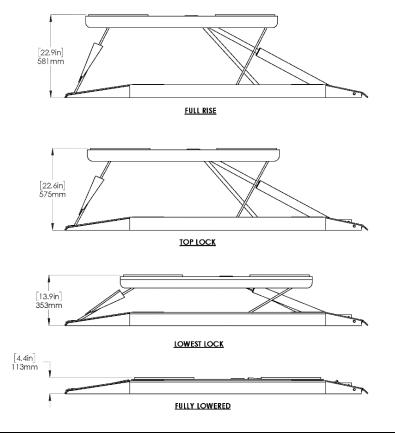




# **Parts Diagrams**







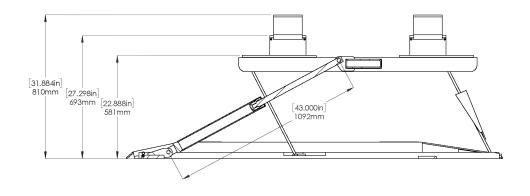
REV G

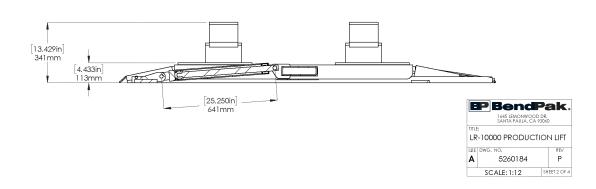
BP BendPak.

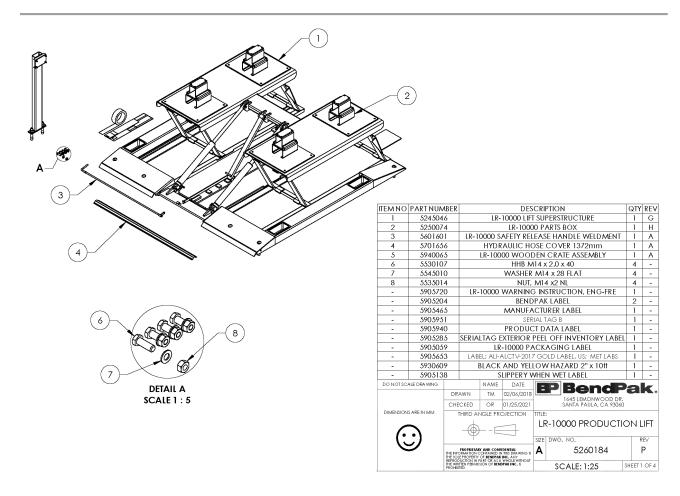
LR-10000 LIFT SUPERSTRUCTURE

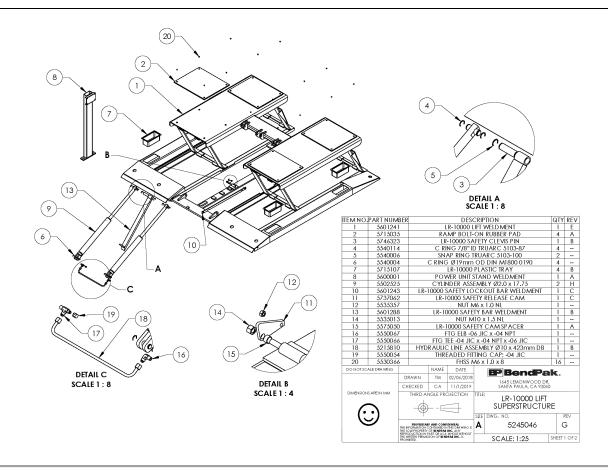
5245046

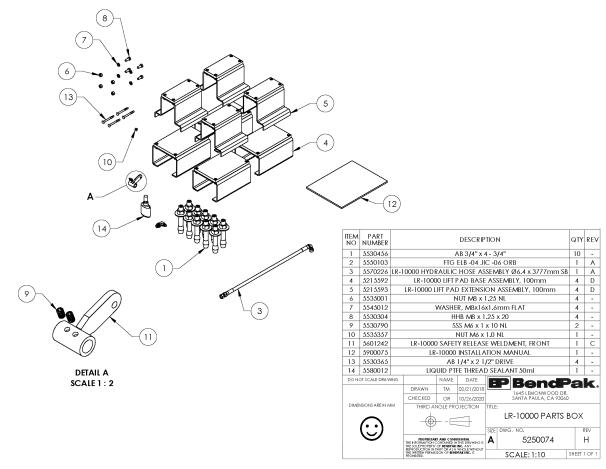
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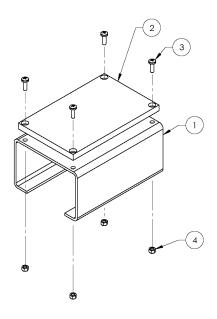


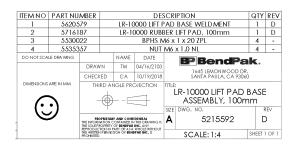


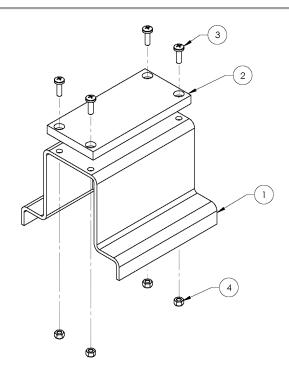


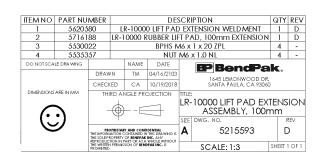












# **Automotive Lift Institute (ALI) Store**

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

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



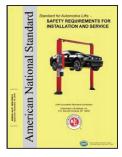
**Lifting It Right Online Certificate Course**. Make *sure* you and your people are lifting vehicles the right way.



**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: http://www.autolift.org/ali-store/.

# **Maintenance Log**

