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autostacker.com

Autostacker™ Parking Lift Installation and Operation Manual

Manual Revision B — December 2017 — Manual P/N 5900002

Model:

PI -6SR



Autostacker is designed and engineered by BendPak Inc. in Southern California, USA. Made in China.



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

Manual. Autostacker Parking Lift, *Installation and Operation Manual*, Manual P/N 5900002, Manual Revision B, Released December 2017.

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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 BendPak at any time to get the latest information about any product: **bendpak.com**.

Warranty. The Autostacker warranty is more than a commitment to you: it is also a commitment to the value of your new product. For full warranty details, contact your nearest Autostacker dealer or visit **autostacker.com/support/warranty**.

Safety. Your 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 this product 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 this product if it can be used safely!

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

Model:	
Serial:	
Date of Manufacture:	



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Introduction

This manual describes the Autostacker parking lift, which easily and quickly lifts a vehicle so that you can park a second vehicle underneath.

Autostacker lifts vehicles up to 6,000 lbs (2,722 kg). For more information about Autostacker, visit **autostacker.com**.

This manual is mandatory reading for all Autostacker users.



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.

Technical support for your product is available directly from your distributor or you can contact **autostacker.com/support** or **support@autostacker.com**. You can also ask for replacement parts (please have the serial number and model number of your unit available).

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, if available. Our willingness to assist in helping you process your claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

Safety Considerations

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

General Safety Information

Please note the following:

- The product is a parking lift. Use it only for its intended purpose. Do not make any modifications.
- The product must only be operated by authorized personnel.
- Wear appropriate protective clothing when installing, servicing, or repairing your Autostacker.
- Keep loads centered and balanced on the Platform.
- When the product is in use, keep all body parts away from it.
- Make sure all operators read and understand the *Installation and Operation Manual*. Keep the manual near the device at all times.
- Make a visual inspection of the product before using it. Check for damage or missing parts. Do not
 use the product if you find any issues. Instead, take it out of service, then contact your distributor,
 or Autostacker at autostacker.com/support or support@autostacker.com.
- Make a thorough inspection of the product at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.

Symbols

Following are the symbols used in this manual:

⚠ DANGER

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

⚠ WARNING

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

⚠ CAUTION

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



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

Liability Information

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

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

Frequently Asked Questions

Question: What kinds of vehicles is Autostacker designed for? **Answer**: Autostacker is designed for cars, light trucks, and SUVs.

Q: Why is the Platform angled?

A: The angled Platform allows low-profile vehicles to drive directly onto the Platform without scraping.

Q: How high does my garage ceiling have to be to use Autostacker?

A: Autostacker works great with ceilings as low at 10 feet. The height of the ceiling does impact what cars you can park on the lift, however. Refer to **Will My Car Fit?** for complete information.

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

A: Yes. The Hydraulic Lines that come with the Autostacker are long enough to support the Console being up to 30 inches away on either side. If you want, you could go to your local hydraulics shop and get longer, custom-made Hydraulic Lines that give you greater latitude for where you put your Console. Remember that the operator **must** be able to see both the Autostacker and the area around it, for safety purposes. Make sure to cover the Hydraulic Lines once they are installed.

Q: Does it matter if I drive my vehicles in straight or back them in?

A: No, Autostacker works great either way. For the vehicle **on** the Platform, make sure to put the wheels in the Tire Trough, whichever direction you drive it on. For the vehicle **under** the Platform, put it in whichever direction makes it easier to open the doors. Note that it is not required that you drive your under vehicle all the way underneath the Platform; for some vehicles, opening the doors is easier if you only drive part way in.

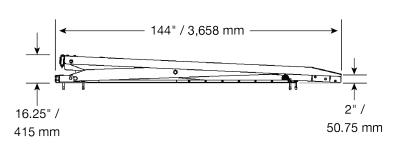
Q: Can Autostacker be installed outside?

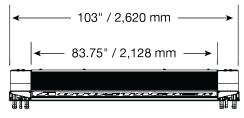
A: Yes. Autostacker was not designed for outdoor use. However, outdoor installations can be accommodated in certain regions **if** optional moisture preventative devices are ordered and installed. Consult Autostacker at **autostacker.com/support** or **support@autostacker.com** for additional information.

Q: Can I use my Autostacker to store boxes of stuff instead of a vehicle?

A: No. This is not the intended use of the Autostacker; do not use it this way.

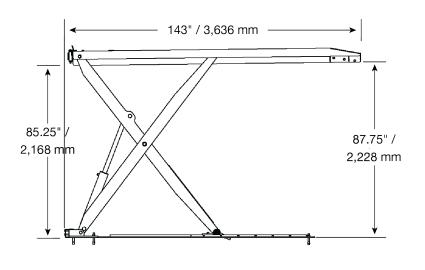
Specifications

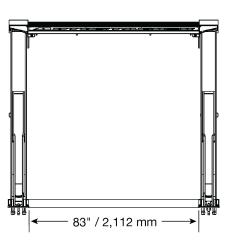




Side View

Front View



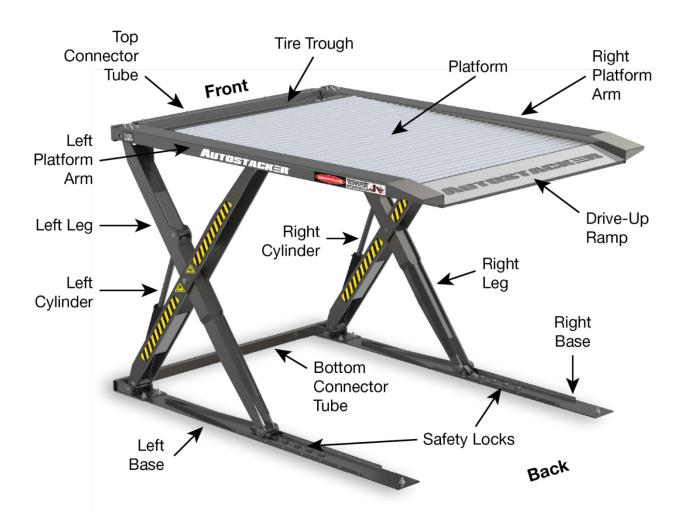


Lifting capacity	6,000 lbs. / 2,722 kg
Total width	103" (8.6 feet) / 2,620 mm
Platform width	83.75" (7 feet) / 2,128 mm
Total length	144" (12 feet) / 3,658 mm
Platform plus ramp	143" (11.9 feet) / 3,636 mm
Platform only	129" (10.7 feet) / 3,274 mm
Maximum wheelbase	120" (10 feet) / 3,048 mm
Maximum rise (<i>not a Safety Lock</i>)	87.75" (7.3 feet) / 2,228 mm
Top Safety Lock	81.75" (6.8 feet) / 2,076 mm
Ramp height	2" / 50.75 mm
Rise/Lower Speed	55 seconds / 30 seconds
Motor	220 VAC at 50 Hz, 208-230 VAC at 60 Hz, Single Phase

Components

Autostacker components include:

- **Console**. Hosts the controls for your Autostacker and the Power Unit. The Console is designed to go on either side of the front of the Autostacker. The included Hydraulic Lines can be up to 30 inches away from the Autostacker.
- **Platform**. Angled metallic deck that holds vehicles. The Platform has the Tire Trough at one end (the front) and the Drive-Up Ramp at the other end (the back).
- **Drive-Up Ramp**. Gives you access to the parking Platform. Note that the tires of the vehicle you are parking on the Platform **must** be **fully** on the Platform and **not** on the Drive-Up Ramp.
- **Tire Trough**. Lowered section of the Platform that holds the tires of the vehicle. The Tire Trough functions as tire chocks, so it is very important that the wheels of the vehicle be sitting fully in the Tire Trough.
- **Patented Door-sentry™ car door protectors**. Protects the car doors of the vehicle parked under the Platform. You should carefully open the car doors of the vehicle parked under the Platform, but the car-door protectors are there in case of contact.
- Leg Assemblies. The Autostacker comes partially assembled, making installation easier and faster. There are two Leg Assemblies, left and right. Each Leg Assembly has a Platform arm, leg, cylinder, and base. Note that the two Leg Assemblies are heavy and can damage materials like tile, sandstone, and brick if not handled correctly; you must use a lifting device like a fork lift or crane to move the Leg Assemblies. Try to move the Leg Assemblies only twice: once on delivery and once when moved into position.
- **Left and right legs**. Part of a Leg Assembly, they raise and lower the Platform.
- Safety Locks. Hold the Platform in place while it is raised. Multiple Safety Locks let you select
 the right Platform height for your needs. Only leave your Autostacker on the ground or
 on a Safety Lock.
- **Top Safety Lock**. Provides the most space for the vehicle under the Platform. The heights of all five Safety Locks are listed in **Raising a Vehicle**.
- Lowest Safety Lock. Provides the most space for the vehicle on the Platform.
- **Left and right Cylinders**. Also part of a Leg Assembly, they move the legs up and down using hydraulic power. The Cylinders are synchronized so that raising and lowering the Platform is even, smooth, and rapid.
- **Top and Bottom Connector Tubes**. Located at the front of the Autostacker, the Connector Tubes hold the Autostacker superstructure together. The Bottom Connector Tube is hollow; the Hydraulic and Return Lines are routed to the Console through the Bottom Connector Tube.
- **Hydraulic Lines**. The Hydraulic Lines provide hydraulic power to the Cylinders, which they use to raise and lower the lift.
- **Return Line**. Returns extra Hydraulic Fluid to the reservoir on the Power Unit. Connect to the top of the Hydraulic Cylinders.
- **Velocity Fuse**. Prevents the Hydraulic System from failing in the event of a sudden, catastrophic loss of Hydraulic Fluid pressure; if a Hydraulic Line were accidentally cut, for example, while the Platform was raised with a vehicle on it.



Will My Cars Fit?

The Autostacker accommodates a wide variety of cars, light trucks, and SUVs. This section describes how to get wider, longer, and taller vehicles onto your Autostacker.

Width

Considerations for vehicle width include:

- **Platform width**. The width from the outside of the left tires to the outside of the right tires cannot be more than 83.7 inches, just under 7 feet. The tires **must** fit on the Autostacker Platform.
- **Mirrors**. Mirrors and other accessories may mean that some parts of a vehicle are much wider than the tires of the vehicle. This is generally not a problem on a raised vehicle, but should be taken into consideration for vehicles being parked under the Autostacker.
- Doors. Opening car doors makes the vehicle wider while they are open. If opening vehicle doors
 is an issue, try driving in the vehicle in the other direction. Autostacker legs have Door-sentry car
 door protectors, which limit problems if a door does contact an Autostacker leg.

Length

Considerations for vehicle length include:

- **Vehicle wheelbase**. Vehicles that get raised on the Platform must have one set of wheels in the Tire Trough and the other set on the Platform itself, **not** on the Drive-Up Ramp. This means that the vehicle's wheelbase must be 120 inches (10 feet) or less. A vehicle's wheelbase is defined as the distance between the middle of the front tires to the middle of the back tires, which is the same thing as the distance between the axles.
- **Overhang**. If a vehicle's wheelbase fits on the Platform, then any overhanging parts of the vehicle outside the wheelbase are not an issue.

Height

Considerations for vehicle height include:

- **Ceiling height**. The height of the ceiling determines how much space you have for the two vehicles. If you want to park both a tall vehicle on and under your Autostacker, your ceiling needs to be higher than if you want to park two low-slung vehicles.
- **Formula**. There's a formula for figuring out how high a ceiling you need.

Height of vehicle on Platform + 21.25 inches + Safety Lock height

For example: Say you have a 2017 Camaro and a 2017 Toyota Camry. The Camry is 58 inches high, the Camaro is 53 inches. If you want the Camry under the Platform and the Camaro on it, the formula would be 53 + 21.25 + 62.5 (fourth Safety Lock) = 136.75 inches. If you have a 12 foot high ceiling, you have 144 inches to use, so this combination would fit fine.

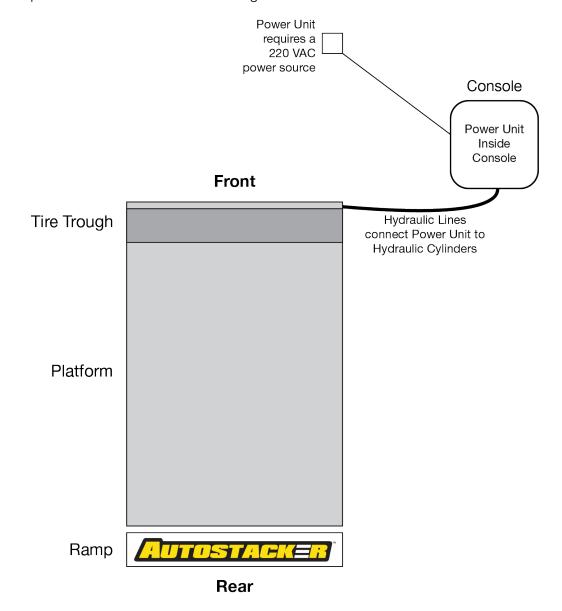
The 21.25 figure includes the height of the Platform plus the height needed to raise the lift off of the Safety Lock. All five Safety Lock heights are listed in **Raising a Vehicle**.



We recommend double checking your ceiling and vehicle heights before raising a vehicle on the Autostacker Platform. **Be especially vigilant the first time you raise a particular vehicle!** No one wants to see the roof of their vehicle make contact with the ceiling. Use the Emergency Stop button if necessary.

Orientation

The following diagram shows the Console on the right side; it can be located on either side. Note that not all components are shown and the drawing is not to scale.



Installation Checklist

Following are the steps needed to install a Autostacker; perform them in this order.
☐ 1. Review the installation Safety Rules.
☐ 2. Make sure you have the necessary Tools.
☐ 3. Plan for Electrical Work.
☐ 4. Select the installation site.
☐ 5. Map out a floor plan.
☐ 6. Position the Leg Assemblies and other Components.
☐ 7. Attach the Bottom and Top Connector Tubes.
☐ 8. Anchor the Autostacker Bases to the ground.
\square 9. Set up the Console and attach the Power Unit.
☐ 10. Connect the Hydraulic Lines.
☐ 11. Connect the Return Lines.
☐ 12. Connect the Power Unit.
☐ 13. Install a Thermal Disconnect Switch.
☐ 14. Test the Autostacker.
☐ 15. Add the Tire Trough and Tire Stops.
☐ 16. Add the Platform sections and Drive-Up Ramp.
☐ 17. Lubricate the Autostacker.
☐ 18. Review the Final Checklist.

Installation

This section describes how to install your Autostacker. 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 autostacker.com/support or call (888) 977-8225.

Safety Rules

When installing your Autostacker, 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 crane, to lift heavy components. Do not install this equipment without reading and understanding this manual and the safety labels on the unit.

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



WARNING You must wear appropriate protective equipment: leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection.

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 and crow bar
- Open-end wrench set: 1/2", 15/16" 1 1/8"
- Socket and ratchet set, 1 1/8"
- Medium crescent wrench
- Chalk line and tape measure
- Medium flat screwdriver
- Fork lift or crane

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 do these things:

- Connect the 220 VAC power source to the bottom of the Power Disconnect Switch. Required. This is generally done when the Power Unit is being connected.
- Connect the Power Unit to the top of the Power Disconnect Switch. Required. This is generally done when the Power Unit is being connected.

• Install a *Thermal* Disconnect Switch. *Optional*. BendPak recommends connecting a *Thermal* Disconnect Switch or overload device (not supplied) to make sure the equipment shuts down in the event of an overload or an overheated motor. Refer to Install a Thermal Disconnect Switch for more information.

Select a Site

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

- **Enough space**. Make sure there is adequate space for the Autostacker on all four sides, plus enough height for the vehicles you will be lifting. If architectural plans are available, use them to make sure there is adequate space for your planned layout.
- **No overhead obstructions**. Make sure the site is free of overhead obstructions such as heaters, building supports, electrical lines, lights, and so on.
- **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 your Autostacker on a surface with 3° or more of slope. A 3° degree slope or greater could lead to property damage, personal injury, or death.

- **Power**. You will need a 220 VAC power source available near the Console. For a 220 VAC, single-phase circuit, use a 25 amp or greater fuse.
- **Operating temperature**. Autostacker is designed to be used between temperatures of 0°F to 104°F (-20°C to 40°C).
- **Indoor installation**. Autostacker is designed for indoor installations.
- **Outdoor installation**. Autostacker is not designed for outdoor use. It has an operating ambient temperature range of 0°F to 104°F (-20°C to 40°C). If operation below this temperature is required, contact **autostacker.com/support** for more information. Do not operate your Autostacker in rain or extremely damp locations. It is water resistant, not waterproof, and water damage is not covered under the warranty. Outdoor installations can be accommodated in certain regions **if** optional moisture preventative devices are ordered and installed. Coastal locations often require additional maintenance due to highly corrosive airborne ocean salt. Although parts of your lift are made of galvanized metal and protected by commercial-grade powder coat, take additional precautions by damp washing all exposed surfaces approximately every three months. Do not allow grass clippings, leaves, or other debris to accumulate on your Autostacker. If you use your Autostacker outdoors, clean it daily and lubricate it every week.
- **Second floor installs**. Do not install the Autostacker on a second floor or elevated floor without first consulting the building architect and getting their permission.
- **Dress properly**. Wear protective gear (like safety goggles, helmet, heavy gloves, suitable working clothes, safety boots, ear protection, and so on) when installing Autostacker. Do not wear loose clothing or jewelry; contain long hair; keep hair and clothing away from moving parts.



Always wear appropriate protective gear when working on the Autostacker.

Important:

Your Autostacker lift is supplied with installation instructions and concrete fasteners that meet the criteria set by the American National Standard "Automotive Lifts – Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2011. Lift buyers are responsible for any special regional, structural, or seismic anchoring requirements specified by any other agencies or codes, such as the Uniform Building Code or International Building Code.

Create a Floor Plan

You need to plan out, in advance, where the Autostacker is going to go. Be sure to work with the Autostacker owner on this:

- Access. The Autostacker is a Parking Lift, so be sure you can drive vehicles onto it.
- **Side clearance**. Consider whether or not you want room on the sides for people to walk around the Autostacker.
- **Front clearance**. Vehicles parked on the Autostacker Platform may extend over the front. If the vehicles you plan to park on the Platform are longer than average (a light truck or a Cadillac, for example), make sure there is enough room between the Autostacker and any obstacles (such as a wall).
- **Rear clearance**. You are not required to park the vehicle under the Autostacker all the way underneath the Platform. Depending on the vehicle, it may be easier to get in to and out of the vehicle if you only go partway under the Platform. If this is a consideration, make sure to allow adequate room at the rear of the Autostacker (the Drive-Up end) for you to park the vehicle and for the garage door to close.
- **Console**. The Console must be located near the Autostacker; the Hydraulic Lines that come with the Autostacker are optimized for up to 30 inches between the Autostacker and the Console. The Console comes unassembled from the factory.



If you want the Console further than 30 inches from the Autostacker, you can use custom Hydraulic Lines. Keep in mind that the Console *must* have a full, unobstructed view of the Autostacker and be near a 220 VAC power source.

- **Operator**. The operator at the Console must have a full, unobstructed view of the Autostacker.
- **Power**. The Console must also be positioned near a 220 VAC power source.

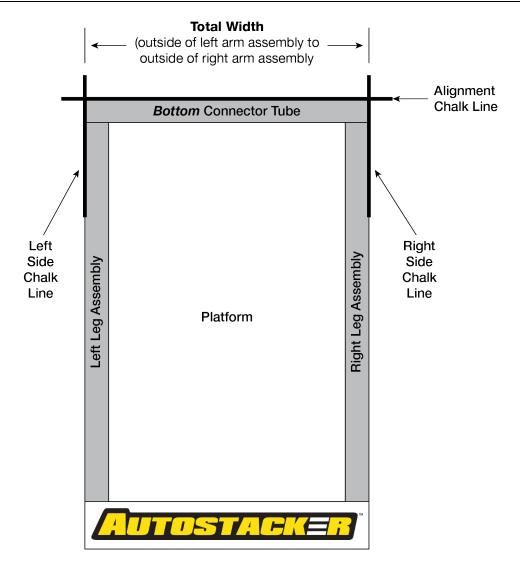


Autostacker recommends writing down your Floor Plan and keeping it nearby during the installation process.

• **Set up Chalk Line Guides**. Using Chalk Line Guides makes it easy to position the Autostacker components for installation.

Note:

The front of the Autostacker is the end **opposite** the Drive-Up Ramp. The Tire Trough is at the front of the Autostacker and the Drive-Up Ramp is at the back.



To add Chalk Line Guides:

- 1. Decide where you want to locate the Autostacker.
- Create an Alignment Chalk Line where you want the front of the Autostacker.
 Make the Alignment Chalk Line *longer* than the Total Width setting for the Autostacker.
- Create two perpendicular chalk lines at 90° angles to the Alignment Chalk Line.
 Make the distance between the Left Side Chalk Line and the Right Side Chalk Line the distance of the Total Width setting for the Autostacker, found in Specifications.
- 4. When you want to move the components into position, put the Bottom Connector Tube against the Alignment Chalk Line and between the Left and Right Side Chalk Lines.
 - Put the Leg Assemblies up against the Bottom Connector Tube and inside the Left and Right Side Chalk Lines, respectively.
 - The Leg Assemblies are not interchangeable: the Door-Sentry car-door protectors go on the inside.

Position the Autostacker Components

When the Autostacker components are delivered to the site, try to have them placed near where you will be installing the unit. For example, if you are installing Autostacker in a garage, you might want to have the components unloaded on the garage's driveway or inside the garage.

⚠ CAUTION

Some of the Autostacker components are very heavy and can damage materials like tile, sandstone, and brick if not handled correctly. Try to handle the Autostacker components only twice: once when delivered and once when moved into position.

Once delivered, remove the packaging and prepare for installation.

MARNING

Some of the Autostacker components are very heavy. You must have a forklift or crane to move them into position. Use care when moving them around.

Autostacker components include:

- Two Leg Assemblies: Each Leg Assembly includes a base, leg, cylinder, and Platform arm.
- **Bottom Connector Tube**: Connects to the Leg Assembly bases. The Hydraulic Lines and the Return Line are routed through the hollow Bottom Connector Tube.
- **Top Connector Tube**: Connects to the Leg Assembly Platform arms. Also attaches to the Tire Trough.
- **Tire Trough**: A single piece with a lowered portion (to hold the vehicle's tires from moving, which holds the vehicle in place). Attaches to the Top Connector Tube and the first Platform section at the front of the Autostacker.
- **Platform**: Made up of galvanized steel sections that are bolted together.
- Ramp: A single piece, angled for easy drive-up.

To move the Leg Assemblies into position:

1. Use a forklift or crane to move the Leg Assembles into position based on the Chalk Lines. The Leg Assemblies go on the *inside* of the Chalk Lines.

⚠ CAUTION

Some of the Autostacker components are heavy and can damage materials like tile, sandstone, and brick if not handled correctly. Move the Leg Assemblies with care so that you do not cause damage to the surface.

The two Leg Assemblies are **not** interchangeable: the Door-Sentry car-door protectors go on the inside.

2. Double check to make sure the Leg Assemblies are correctly positioned with the Door-Sentry cardoor protectors on the inside.

Attach the Bottom and Top Connector Tubes

The Bottom Connector Tube holds the bottom of the Autostacker structure together. It is hollow, allowing the Hydraulic Lines and Return Line to be routed through it.

Each end of the Bottom Connector Tube connects to the corresponding end of a Leg Assembly base.

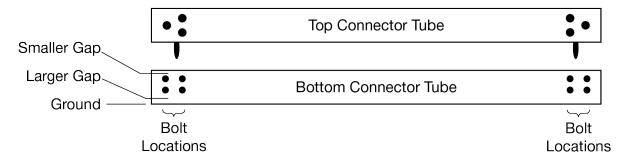
The Top Connector Tube holds the top of the Autostacker structure together. Each end of the Top Connector Tube connects to the corresponding end of a Leg Assembly Platform arm.

To attach the Bottom and Top Connector Tubes:

Move the Bottom Connector Tube into position: on the ground at the front of the lift.
 The Bolt locations on the Bottom Connector Tube need to line up with the holes on the base of each Leg Assembly.

Important:

The Bottom Connector Tube must be oriented so that the smaller gap (from the top Bolts to the top of the tube) must be at the top and the larger gap (from the bottom Bolts to the bottom of the tube) must be at the bottom. If you cannot push the Bolts through the Bottom Connector Tube and into the holes on the base of the Leg Assembly, it is probably because you have the Bottom Connector Tube oriented wrong.



Notes:

- Larger gap goes down; smaller gap up.
- View is front of Autostacker looking towards rear.
- Not all components shown, drawing is a side view.
- 2. Take four Bolts from the Parts Box, then use them to connect one end of the Bottom Connector Tube to the base of one of the Leg Assemblies.
- 3. Take four more Bolts from the Parts Box, then use them to connect the other end of the Bottom Connector Tube to the base of the other Leg Assembly.
- Use a forklift or crane to lift the two Leg Assemblies onto the lowest Safety Lock.
 Raising the Leg Assemblies gives you some extra room as you continue installing the Autostacker.
- 5. Take three Bolts from the Parts Box, then use them to connect one end of the Top Connector Tube to the corresponding end of a Platform arm.



The Top Connector Tube is heavy, and since it needs to be connected while raised off the ground, we strongly recommend using either two strong people to connect it (one person to hold the tube in place, one to connect the tube using the Bolts) or using a forklift or crane to hold it in place while you connect it.

6. Take three more Bolts and use them to connect the other end of the Top Connector Tube to the corresponding end of a Platform arm.

Anchor Bases to the Ground

Both Autostacker bases have five holes in them for anchoring the base to the ground.

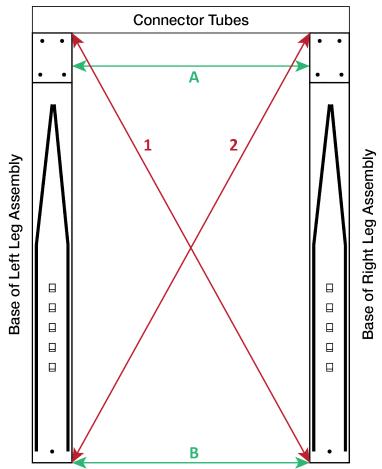


If you prefer, you can defer anchoring the Autostacker bases into place until later in the installation. Simply return to this section when you are ready.

Before you anchor your Autostacker, make sure the Leg Assemblies are correctly aligned.

⚠ CAUTION

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



To check your Autostacker alignment prior to anchoring:

- 1. Using the drawing as a guide, measure **A** and **B** to make sure your Leg Assemblies are parallel. If the values are different, adjust as necessary.
- 2. Measure **1** and **2** to check your diagonal measurements. If the values are different, adjust as necessary.
- 3. When you believe your Leg Assemblies are parallel and the diagonals are correct, **check your measurements again!**

Important:

Poor alignment can affect how your Autostacker raises and lowers. Re-aligning Autostacker Leg Assemblies **after** you anchor them into place is difficult. It is well worth your time to align your Autostacker correctly before you anchor it into place.

Anchor Bolt specifications are:

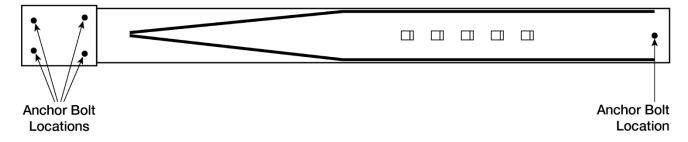
Length: 6 inchesDiameter: ¾ inch

• Hole depth: 3.75 inches

• Effective embedment depth: 3.25 inches, minimum

• **Anchor torque**: 110 – 150 foot pounds

The following drawing shows the locations of the Anchor Bolt holes in the bases. Other components have been removed so you can focus on the holes.



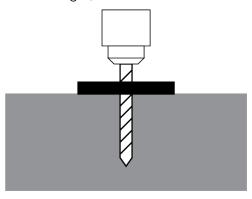
To anchor your Autostacker to the ground:

1. Double check to make sure the Autostacker bases are where you want them.

Once Anchor Bolts are torqued into position, they are not easily removed. BendPak strongly recommends making sure the Leg Assemblies are correct before anchoring.

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

Go in straight; do not let the drill wobble.

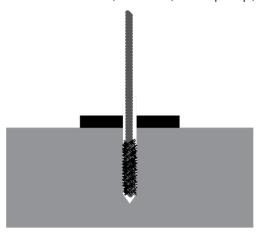


Use a carbide bit (conforming to ANSI B212.15-1994).

The diameter of the drill bit **must** be the same as the diameter of the Anchor Bolt. So if you are using a ¾ inch diameter Anchor Bolt, for example, use a ¾ inch diameter drill bit.

3. Clean each hole.

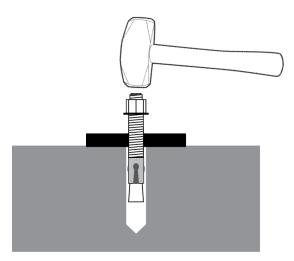
Use a wire brush, vacuum, hand pump, or compressed air.



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

4. 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.

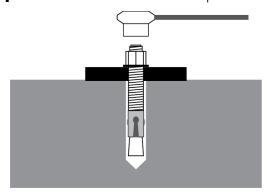


Even using a hammer or mallet, the Anchor Bolt should only go into the hole part of the way; this is normal. If the Anchor Bolt goes all the way in with little or no resistance, the hole is too wide.

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.

- 5. 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.
- Wrench each Nut *clockwise* to the recommended installation torque, 110 150 foot pounds, using a Torque Wrench.

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



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

Assemble the Console and Attach the Power Unit

The Console can go on either side of the front of the Autostacker.

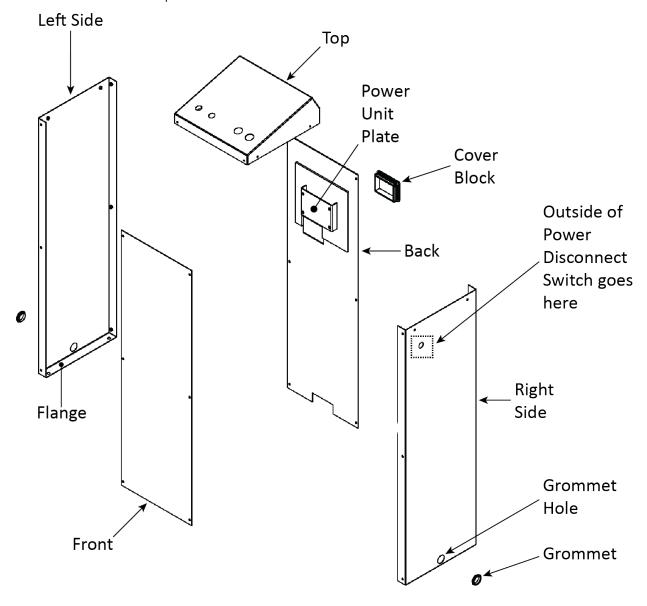
Note: The Console comes unassembled from the factory. This section describes how to assemble the Console and attach the Power Unit inside the Console.

The included Hydraulic Lines require the console to be within 30 inches of the front of the Autostacker.



If you want to set up the Console further than 30 inches from your Autostacker, you will need to get Hydraulic Lines that are long enough to reach the Autostacker from where you want to put the Console. These should be relatively easy to obtain from the local hydraulics shop, once you know how long you need the lines. You will also need a longer Return Line.

The following procedure includes instructions for anchoring the Console into place. If you prefer, you can defer anchoring the Console into place for later. Simply return to this section when you want to anchor the Console into place.



To assemble the Console and attach the Power Unit:

- 1. Select a site for the Console that permits operators to have a full, unobstructed view of the lift.

 If you are going to use the included Hydraulic Lines, the Console needs to be near the front of the Autostacker; it can go on either side, up to 30 inches from the Autostacker.
- 2. Arrange all of the Console components near where you are going to assemble it.
- 3. Put the Grommets into place in the Grommet Holes on the bottom of the Left and Right Sides.
- 4. Put the Left Side on the left and the Right Side on the right, then attach both of them to the Back; make sure to orient the Back so that the Power Unit Plate is on the inside of the Console.
 - Note that the Flanges on the bottoms of both sides need to be on the inside and the Back attaches on the outside of the two sides.
 - Do not attach the Nuts at the top of the sides or the Back at this point; these will be attached later when you are ready to attach the Top of the Console.
- 5. Remove the Power Unit from its packing material.
- 6. Using the supplied Nuts and Bolts, attach the Power Unit to the Power Unit Plate on the inside Back of the Console.
- 7. Attach the Power Disconnect Switch. One piece goes on the inside of the Right Side, the clear piece goes on the outside of the Right Side; use four screws to connect the clear piece on the outside to the inside piece, then add the red/yellow switch on the outside using a single screw.
- 8. Attach the Front of the Console, then the Top.

Important:

All of the components of the Console are now in place, but they are not all connected. To connect the Hydraulic Lines, Return Lines, and the other connections to the Power Unit, you are going to need to remove both the Top of the Console and the Front. Refer to **Connect the Power Unit** for connection instructions.

- 9. If you are ready to anchor the Console in place, find the four holes in the bottom of the Console base (on the inside) and mark the locations. The four Anchor Bolts go into these holes.
- 10. Move the Console out of the way. It is much easier to drill the holes for the Anchor Bolts if the Console is out of the way.
- 11. Drill four holes 3/8" wide by 2.5" deep in the concrete floor at the locations you just marked.

 Go in straight; do not let the drill wobble. Use a carbide bit (conforming to ANSI B212.15-1994).
- 12. 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.

- 13. Move the Console over the four holes.
- 14. Insert an Anchor Bolt with Washer into each hole, then tap it down into the hole.
- 15. Wrench the Anchor Bolt *clockwise* to the recommended installation torque, 110 150 foot pounds, using a Torque Wrench.

Connect the Hydraulic Lines

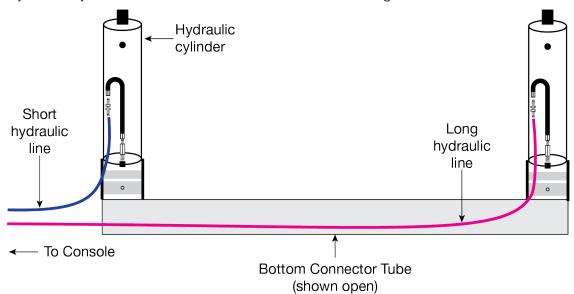
Hydraulic Lines provide hydraulic power to the Cylinders, which is used to raise and lower the lift.

The Autostacker comes with two Hydraulic Lines, one longer and one shorter:

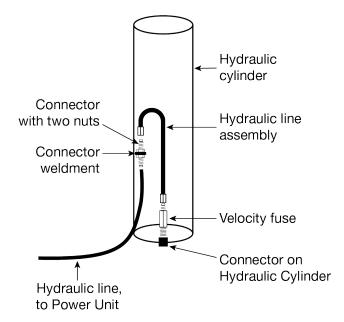
- **Shorter Hydraulic Line**: goes from the Power Unit (inside the Console) to the Hydraulic Cylinder that is *closest to* the Console.
- **Longer Hydraulic Line**: goes from the Power Unit to the Hydraulic Cylinder that is **furthest from** the Console.

Both Hydraulic Lines are routed through the Bottom Connector Tube, which is hollow.

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



The following drawing is a close-up of the components that connect a Hydraulic Line to a Hydraulic Cylinder. The components are shown **not** connected, to make it easier to see how they attach.



To connect the Hydraulic Lines:

- 1. Locate the two Short and Long Hydraulic Lines.
- 2. Starting near the Console, route the Long Hydraulic Hose through the Bottom Connector Tube and pull it out at the Hydraulic Cylinder that is furthest away from the Console.
 - Leave enough hose on the Console end to allow the Long Hydraulic Hose to be connected to the Power Unit up through one of the openings at the bottom of the Console.
 - Pull out enough hose to reach the Connector with Two Nuts when it is time to put all of the components together.
- 3. Starting near the Console, route the Short Hydraulic Hose through the Bottom Connector Tube and pull it out at the Hydraulic Cylinder nearest to the Console.
 - Leave enough hose on the Console end to allow the Short Hydraulic Hose to be connected to the Power Unit up through one of the openings at the bottom of the Console.
 - Pull out enough hose to reach the Connector with Two Nuts when it is time to put all of the components together.
- 4. For both Hydraulic Cylinders, install Velocity Fuses in the connectors near the bottom of each cylinder. Finger tighten the connection. Refer to **About Velocity Fuses** for more information.
- 5. For both Hydraulic Cylinders, remove one Nut from the Connector with Two Nuts, put the Connector with Two Nuts into the connector weldment, put the Nut you just removed back onto the Connector with Two Nuts, and finger tighten both Nuts around the Connector Weldment.
- 6. For both Hydraulic Cylinders, connect the Hydraulic Line Assembly to the top end of the Connector with Two Nuts and the other end to the top end of the Velocity Fuse. Finger tighten all connections.
- 7. For both Hydraulic Cylinders, connect the Hydraulic Line to the bottom end of the Connector with Two Nuts. Finger tighten the connections.
- 8. Attach 90° connectors to both Hydraulic Power connectors on the Power Unit.
 - There are two Hydraulic Power connectors on the Power Unit, one on each side. Refer to the drawing in **Connect the Power Unit** for connector locations.
- 9. Route the two Hydraulic Lines, one at a time, through an opening along the bottom of the Console and up to one of the 90° connectors, then connect them. It does not matter which Hydraulic Line goes to which Hydraulic Power connector.
- 10. Once all connections have been made, use appropriate tools to fully tighten all of the finger-tightened connections.

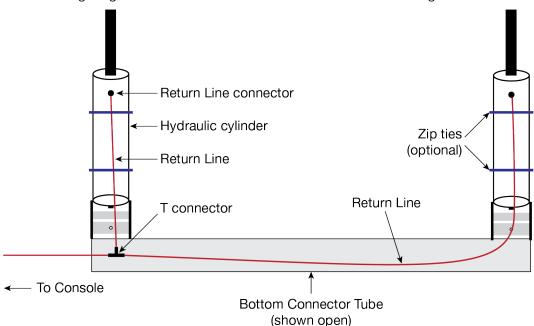
Connect the Return Lines

The Return Lines take extra Hydraulic Fluid from the Hydraulic Cylinders and returns it to the Power Unit's Hydraulic Fluid reservoir; it also allows air to move in and out of the Hydraulic Cylinders.

One end of the Return Line connects to the Power Unit (where it goes into the reservoir). There are two other ends; they attach to Return Line connectors, which are near the top of each Hydraulic Cylinder.

The Return Line comes as one long roll of tubing; you need to cut it into sections of the right length.

The following diagram shows how the Return Lines should be arranged.





If you want, you can use zip ties (also called cable ties, not supplied) to hold the Return Lines in place once they are connected.

You are going to need three Return Line segments of varying length:

- From the Power Unit to the T connector
- From the T connector to the Return Line connector on the Hydraulic Cylinder nearest the Console
- From the T connector to the Return Line connector on the Hydraulic Cylinder furthest from the Console

To connect the Return Lines:

1. Attach a 90° fitting to **one of the two** Cylinder Vent connectors on the Power Unit.

There are two Hydraulic Return connectors on the Power Unit, one on each side; they work the same, so choose the one that is easiest for you. **You only need to use one, not both**. They are shown in the drawing in **Connect the Power Unit**.

- 2. Attach a 90° fitting to both Return Line connectors near the top of each Hydraulic Cylinder.
- 3. Locate a T Connector and put it near the bottom of the Hydraulic Cylinder closest to the Console.
- 4. Locate the Return Line tubing.
- 5. Cut a piece of tubing of appropriate length for each of the three Return Line segments.
- Connect a Return Line between the Power Unit and the T Connector.
- 7. Connect a Return Line between the T Connector and the Return Line connector on the Hydraulic Cylinder nearest the Console.
- 8. Connect the final Return Line to the T Connector, route it through the Bottom Connector Tube, then connect it to the Return Line connector on the Hydraulic Cylinder furthest from the Console.

Connect the Power Unit

The Power Unit comes assembled from the factory. You need to attach it to the back of the Console (described in **Set Up the Console and Attach the Power Unit**) and then connect it properly, described in this section.

The Power Unit for the Autostacker is 220 VAC, 50/60 Hz, single phase.

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

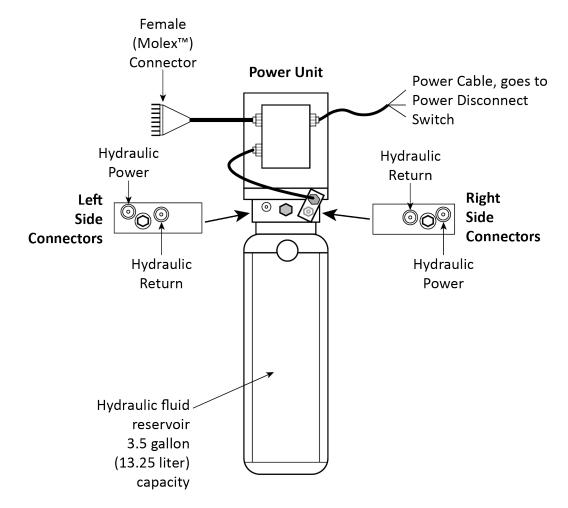
Refer to **Wiring Diagram** for wiring information.

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

The Power Unit has multiple connections:

- Two Hydraulic Lines and One Return Line. Already in place and connected.
- **Power Cable**. The Power Cable on the Power Unit connects to the top of the Power Disconnect Switch. A licensed, certified electrician is required for this connection.
- **Power Source**. The Power Source connects to the bottom of the Power Disconnect Switch. Also requires a licensed, certified electrician.
- **Controls**. The Female (Molex[™]) Connector on the Power Unit connects to a Male Connector coming down from the Controls in the Top of the Console.

The following diagram shows the Autostacker's Power Unit.



To make connections to the Power Unit and add Hydraulic Fluid:

- 1. Remove the Top and Front of the Console if they are currently in place.
- 2. Locate the Female (Molex[™]) Connector on the Power Unit and attach it to the Male Connector that comes from the Controls in the Top of the Console.
 - Make sure to orient the two connectors correctly.
- 3. Have an electrician connect the Power Cable on the Power Unit to the *top* of the Power Disconnect Switch.
- 4. Have an electrician connect a 220 VAC power source to the **bottom** of the Power Disconnect Switch.

Refer to **Wiring Diagram** for proper wiring information. Note that the cord from the power source to the bottom of the Power Disconnect Switch is **not** supplied.

⚠ DANGER

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

Important electrical information:

- Improper electrical installation can damage the Power Unit motor; this damage is not covered under warranty.
- Use a separate circuit breaker for each Power Unit.
- Protect each circuit with a time-delay fuse or circuit breaker. For a 220 VAC, single phase circuit, use a 25 amp or greater fuse.
- 5. 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 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, or any synthetic multi-vehicle automatic transmission fluid.



Do not run your Power Unit without Hydraulic Fluid; you will damage it. Keep the Power Unit dry; damage to the Power Unit caused by water, detergents, acid, and other liquids is not covered by the warranty.

Install a Thermal Disconnect Switch

⚠ WARNING

The Autostacker comes with a **Power** Disconnect Switch, but the Autostacker motor has no **thermal** overload protection.

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



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

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

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

Test the Autostacker

Before putting your Autostacker into normal operation, we recommend breaking it in by raising and lowering it a few times. This will help you get a feel for how to operate it and helps to get the residual air out of the hydraulic system.



Residual air in the hydraulic system can cause the Autostacker to shake, move erratically, or squeak; this is normal. If it happens to you, do not worry; it will go away quickly as the Autostacker is self-bleeding.

Neither the Platform nor the Drive-On Ramp need to be installed to test the lift. You also do not need weight on the lift.

Note: The Autostacker lowers a little slower with no weight on it.

To test your Autostacker:

- 1. Check the area around and above the Autostacker for obstructions; move them if you find any.
- 2. Insert the key and move it to the **On** position.
- 3. Press and hold **Up**. The Autostacker starts rising.
- 4. Before reaching the first Safety Lock, release **Up**. The Autostacker stops rising.
- 5. Press and hold **Down**. The Autostacker starts lowering.
- 6. When the Autostacker gets to the ground, it stops lowering; release **Down**.
- 7. Wait for one minute.

⚠ WARNING

The Autostacker's Power Unit is not a constant duty motor; it cannot be run continuously.

8. Repeat the process, this time raising the Autostacker just past the first Safety Lock.

You can tell when the Autostacker passes a Safety Lock: when the Lock Hood goes past a Lock Block, it hits the base and makes an audible click. Refer to **About Safety Locks** for more information.

9. If the Autostacker is working without shaking, moving erratically, or squeaking, there is no need to repeat the procedure.

If the Autostacker is shaking, moving erratically, or squeaking, repeat the procedure one more time, raising the Autostacker to the second Safety Lock.

It is normal for the Autostacker to shake, move erratically, or squeak when you first get it. Using it a few times almost always fixes those issues.

If your Autostacker continues to have problems well past the break-in period, refer to **Troubleshooting** for additional information.

Add the Tire Trough and Tire Stops

The Tire Trough is a lowered section of the Platform that holds the tires of the vehicle. The Tire Stops attach to the top of the Tire Trough and add a bit of extra height for holding vehicles with larger tires.

Important: The Tire Trough functions as a tire chock; the forward wheels of the vehicle on the Platform should *always* be sitting fully in the Tire Trough.

The Tire Trough is installed at the front of the Autostacker; it attaches to the Top Connector Tube.

The Tire Stops are optional but recommended. They attach to the Top Connector Tube using the same Nuts/Bolts/Washers as the Tire Trough.

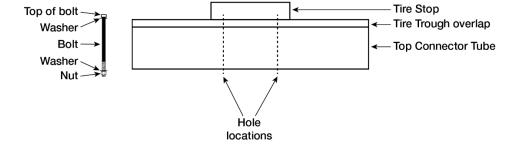


The Tire Trough is heavy. Move it into position using a lifting device such as a forklift or crane. If this is not an option, have at least two people to move it. **Do not allow just one person to move the Tire Trough**, they could be injured.

To install the Tire Trough and Tire Stops:

- 1. Move the Tire Trough into position next to the Top Connector Tube.
 - A section of the Tire Trough rests on the Top Connector Tube. This is where the Tire Stops go and where you attach the Tire Trough to the Top Connector Tube.
- 2. Get the necessary Bolts (4), Nuts (4), and Washers (8) from the Parts Bag.
- 3. If you are installing them, put the Tire Stops on top of the Tire Trough; align the holes in the bottom of the Tire Stops with the holes in the Tire Trough and the Top Connector Tube.
 - Orient the Tire Stops so that the vertical portion is on the Tire Trough side.
- 4. Push a Washer into place on the Bolt, then slide the Bolt through the Tire Stop, the Tire Trough, and the Top Connector Tube.
- 5. Put the second Washer on the Bolt, at the bottom, then add and tighten the Nut.

The following drawing is a side view of how these components go together.



6. Repeat steps 4 and 5 for each of the other holes.

Add the Platform Sections and the Drive-Up Ramp

The Platform sections, when installed, create the Platform. The Drive-Up Ramp lets you drive a vehicle onto the Platform.

The Platform sections are most easily installed from underneath. Raise the Autostacker to a height that is good for you.

↑ WARNING

Do not go under the Autostacker until it is on a Safety Lock.

Start next to the Tire Trough. Add one Platform section at a time. Put each one in place, then use the Nuts and Bolts to secure them. There are five Nuts and Bolts per Platform section: one on each end, to connect the Platform section to the structure, and three in the middle, to attach the Platform section to the previous section.

When you get to the Drive-Up Ramp, it secures only on the sides, not in the middle.

To add the Platform sections and the Drive-Up Ramp:

- 1. Starting next to the Tire Trough, put a Platform section next to the Tire Trough and then slide the end closest to the Tire Trough under it slightly. Bolt the ends of the Platform section into the Platform Arm.
- 2. Put the next Platform section into place against the first one.
 - You know the two are oriented correctly when the holes line up.
- Attach the Platform sections to each other by putting in a Nut and Bolt in their center holes.
 It is not necessary to put in all of the Nuts and Bolts now; wait until all of the Platform sections are in place.
- 4. Attach the rest of the Platform sections to each other, one at a time, keeping them in place by putting a Nut and Bolt in the center holes.
- 5. When the last Platform section is in place, move the Drive-Up Ramp into place. If it makes installation easier, you can lower the lift to a more appropriate height.

⚠ WARNING

The Drive-Up Ramp is heavy. You should move it into position using a lifting device such as a forklift or crane. If this is not an option, use at least two people to move it. **Do not allow just one person to move the Drive-Up Ramp**; they could be injured.

The end of the last Platform section and the top of the Drive-Up Ramp need to overlap.

- 6. When the Drive-Up Ramp is correctly oriented, connect it to the Platform Arm using three Nuts and Bolts on each side.
- 7. Check to make sure all of the Platform pieces and the Drive-Up Ramp are correctly positioned.
- 8. Put in the rest of the Nuts and Bolts that attach the Platform sections to each other.

Lubricate the Lift

The Autostacker has eight Lubrication Points, four on each Leg Assembly.

You must grease the Threaded Grease Fitting at the Lubrication Points before you start normal operation of your Autostacker. Refer to **Maintenance** for more information about how often to grease the Lubrication Points after the start of normal operation.



Autostacker recommends using white lithium grease, or similar, and a grease gun with an appropriate tip (a Lube-Link™, for example) when lubricating your lift.

The Threaded Grease Fittings / Lubrication Points on each Leg Assembly are:

- Where the bottom of the cylinder meets the base
- Where the top of the cylinder meets the leg
- On the underside where the two legs cross
- Where the leg meets the Top Connector Tube

The following graphic has arrows that point to the four Lubrication Points on a Leg Assembly; they are in the same place on both Leg Assemblies. The graphic also shows a Threaded Grease Fitting, so you can get an idea of what they look like.



Final Checklist

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

- Review the **Installation Checklist** to make sure all steps have been performed.
- Make sure the Power Unit is getting power from the power source.
- Check the Power Unit's Hydraulic Fluid reservoir; it must be full of approved Hydraulic Fluid or automatic transmission fluid. You can harm the motor by running it without enough fluid.
- Check the Hydraulic System for leaks.
- Check to see that all Anchor Bolts are tightened.
- Make sure that all Safety Locks are cleared and free.
- Make sure a copy of the *Installation and Operation Manual* is left with the equipment, so that it is available to all operators, and make sure all labels are visible.
- Raise the Autostacker to each of the five Safety Locks and measure the space between the
 ground and the bottom of the Drive-Up Ramp. Check these values against the values shown in
 Raising a Vehicle. These are the actual values that you should use to determine what vehicles
 you want to put where.
- Perform an operational test of the lift with a typical vehicle.

During the operational test, observe all operating components and check for proper installation and operation. Do not raise any additional vehicles until a thorough operational check has been performed with a typical vehicle.

If the Autostacker fails the operational test, take it out of service, then consult **Troubleshooting** to begin addressing the problem.

Operation

This section describes how to operate your Autostacker.

⚠ WARNING

Always use care when you are around the Autostacker. When it is lowered, be careful not to trip over it. When it is raised, be careful not to bang your head on the Drive-Up Ramp or Platform. *When the Autostacker is moving, keep all people, animals, and objects at least 30 feet away* from it.

Preparing to Raise or Lower a Vehicle

Before you raise or lower a vehicle using Autostacker, do the following:

- Check the Autostacker. Check the Autostacker for any missing, heavily worn, or damaged parts. Do not operate the Autostacker if you find any issues; instead, take the lift out of service, then contact your Autostacker dealer, visit autostacker.com/support, email support@autostacker.com, or call Autostacker at (888) 977-8225.
- **Check the area**. Check the area around the Autostacker for obstructions; anything that might block the lift. Do not forget to check **above** the Autostacker. If you find an obstruction, move it out of the way. Do not allow people or animals within 30 feet of the Autostacker while it is in motion.
- **Check the operators**. Make sure that everyone who is going to operate the Autostacker 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 Autostacker when it is in motion.
- Check for safety. Make sure everyone who is going to be walking near the Autostacker is aware of its presence and takes appropriate safety measures. Only put vehicles on the Platform.
 When raising the Autostacker, do not leave it until it is on a Safety Lock. When lowering the Autostacker, do not leave it until it is on the ground. Do not allow children to operate the lift. Do not allow anyone under the influence of drugs or alcohol to operate the lift.

The Autostacker Console

Your Autostacker is controlled via its console.



The parts of the Autostacker console are:

- **Emergency Stop button**. Press to immediately stop the Autostacker from moving. This button is for use in unexpected or dangerous situations.
- On/Off key. Insert the key and turn it to On when you want to raise or lower the lift. Set it to Off and remove the key when you are not using the lift. Do not leave the key in all the time; this is a security and safety risk.
- **Up button**. Press and hold **Up** to raise the lift. Release **Up** to stop the lift from going up.
- Down button. Press and hold Down to lower the lift. Release Down to stop the lift from going down. The alert sound goes on automatically when the lift is moving down.

Raising a Vehicle

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

To raise a vehicle:

- 1. Make sure the Platform is on the ground.
- 2. Drive the vehicle onto the Platform, either nose first or backed in.

A CAUTION

When driving a vehicle onto or off of the Platform, keep to the middle of the Platform. If you hit the corners of the arm structure, you could damage a tire.

- 3. Put the vehicle's forward wheels into the Tire Trough.
- 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 off the vehicle.
- 5. Get out of the vehicle and make sure the forward wheels are in the Tire Trough and that the rear wheels are fully on the Platform.

The best position for your vehicle is the forward wheels in the Tire Trough and the rear wheels resting fully on the Autostacker Platform. **Do not raise the vehicle if the rear wheels are on the Drive-Up Ramp**.

Do not raise the Autostacker until both the forward and rear wheels are situated correctly; instead, get back into the vehicle and position the wheels correctly.

- 6. Make sure there are no obstructions that will interfere with the raising of the lift.
- 7. At the console, insert your key, turn it to On, then press and hold the **Up** button.
- 8. Watch the vehicle and the lift as they rise.

If the lift becomes unstable or the vehicle starts moving on the Platform, press the red **Emergency Stop** button.

- 9. When the Platform passes the desired height, release the **Up** button. The lift stops rising.
- 10. Press the **Down** button to move the lift down onto the most recently passed Safety Lock.



If you move the lift too far past a Safety Lock, it will not catch on the way back down. If this happens, just move the lift back up again, just past the Safety Lock, and then lower it back down onto the Safety Lock.

Safety Lock heights are:

- **Top Safety Lock**: 81.75" / 6.8' / 2,076 mm of space under Platform
- **Second Safety Lock**: 76" / 6.3' / 1,930 mm of space under Platform
- Third Safety Lock: 69.75" / 5.8' / 1,771.6 mm of space under Platform
- **Fourth Safety Lock**: 62.5" / 5.2' / 1,587.5 mm of space under Platform
- Lowest Safety Lock: 53.8" / 4.5' / 1,366.5 mm of space under Platform

Using the top Safety Lock frees up more space for the vehicle you are parking under the Platform; using the lowest Safety Lock frees up more space for the vehicle you are parking on the Platform.

11. Once the Platform is on the desired Safety Lock, the vehicle is safely raised.

About Safety Locks

Your Autostacker comes with five Safety Locks; they serve two important functions:

• **Safety**. Safety locks hold the Platform in place. Once your Autostacker is on a Safety Lock, the weight of the vehicle pressing down holds the Platform in place without requiring any energy. If you turn the Power Unit off or if the power goes out, the Safety Lock holds the Platform, and anything on it, in place.

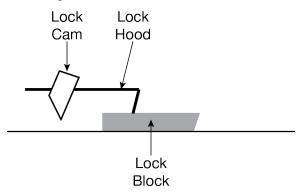
A WARNING

Do not walk under your Autostacker or leave the area until you have put it on a Safety Lock. Although rare, it is possible for hydraulic fluid in the cylinders to leak, causing the life to slowly come down. When you are operating an Autostacker, only leave it on the ground or on a Safety Lock.

• **Space**. As described above, putting your Autostacker into the top Safety Lock gives you the most space under the Platform for another vehicle. When you use the lowest Safety Lock, you have more available space for the vehicle on the Platform.

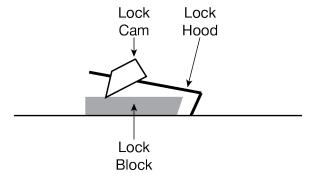
To put your Autostacker onto a Safety Lock:

1. Press **Up** to raise the Platform.



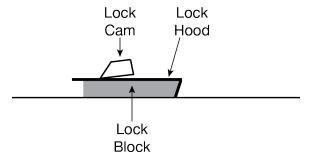
The drawing above shows the Lock Cam and Lock Hood passing over a Lock Block. If you were to stop going up at this point, and start going back down, the lift would **not** go onto a Safety Lock.

2. When the Lock Hood goes past a Lock Block, it makes a click when it hits the base.



The drawing above shows the Lock Cam and Lock Hood at different places in relation to the Lock Block. The Lock Cam is still over the Lock Block, while the Lock Hood is at the same level as the Lock Block. If you were to stop going up at this point, and start going back down, the lift **would** go onto a Safety Lock.

- 3. To use that Safety Lock, keep pressing **Up** for another half a second, then release **Up**.
- 4. Press **Down** for a very short time; the Lock Hood moves into a locked position on the Lock Block it just passed.



The drawing above shows the Lock Hood in a locked position on the Lock Block.

5. If you miss the desired Safety Lock, there's no problem; just try it again until you get it right.

Parking a Vehicle Under Autostacker

This section describes how to park a vehicle under the Autostacker Platform.

To park a vehicle under a raised vehicle:

- 1. Check the height of the vehicle against the amount of space that is available under the Autostacker Platform; there needs to be enough space to accommodate the height of the vehicle.
- If necessary, raise the Autostacker Platform to a higher Safety Lock.
 If the Autostacker Platform is already on the highest Safety Lock, and there still is not enough space available, you cannot park that particular vehicle under the Autostacker Platform.
- 3. If desired, lower the vehicle's antenna and fold in any side mirrors.
- 4. Drive the vehicle into the center of the space under the Autostacker Platform.
- 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 off the vehicle.
- 6. Open the car door(s) carefully, making sure not to bang the door against the Autostacker legs.
- 7. Exit the vehicle, taking care not to bump your head on the Autostacker Platform or trip over the Autostacker base.
- 8. To get the parked vehicle back out again, simply reverse this process.

Lowering a Vehicle

This section describes how to get a raised vehicle off of the Autostacker Platform.

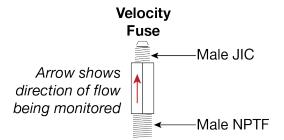
To lower a vehicle:

- Check the items listed in Preparing to Raise or Lower a Vehicle.
 If you find any issues, resolve them before lowering the vehicle.
- 2. At the console, insert your key and turn it to On.
- 3. Press and hold the **Up** button for a second or two to raise the lift off of the Safety Lock.
- 4. Press and hold the **Down** button.
- 5. When the Autostacker Platform is resting on the ground, release the **Down** button.
- 6. Carefully drive the vehicle off the Autostacker Platform.
- 7. Turn the key on the console to Off, then remove it.

About Velocity Fuses

Velocity Fuses are a safety feature. They stop hydraulic flow in the event of a hydraulic line failure.

Every Autostacker comes with one Velocity Fuse per Hydraulic Cylinder.



The way a Velocity Fuse works is this: When the Platform is being raised, Hydraulic Fluid moves from the Power Unit to the Hydraulic Cylinder, which uses this force to raise the Platform. When the Platform is being lowered, Hydraulic Fluid moves back from the Hydraulic Cylinder to the Power Unit.

The Velocity Fuse monitors the flow of Hydraulic Fluid *back to the Power Unit*. The arrow on the Velocity Fuse shows the flow direction it is monitoring. The other direction is not monitored.

Most of the time, the force of the flow back to the Power Unit is beneath the trigger value of the Velocity Fuse. If, however, the Hydraulic Line were to be accidentally cut, for example, the force of the flow back towards the Power Unit would increase significantly. If the force of the flow goes above the trigger value of the Velocity Fuse, the Velocity Fuse kicks in and blocks the flow.

Maintenance

WARNING:

Before performing any maintenance on your Autostacker, make sure it is **completely disconnected from power**.

To maintain your Autostacker:

- Daily: Keep the Autostacker clean. Wipe up any spills, clean any dirt.
- **Daily**: Make a visual inspection of all moving parts and check for damage or excessive wear. Replace any damaged or worn parts before using the lift.
- **Daily**: Make sure Safety Locks are in good operating condition. Do not use your Autostacker if the Safety Locks are damaged or excessively worn.
- **Twice a Week**: Sweep the bases, removing all debris. Pay special attention to the Safety Locks and the wheel tracks; if these areas are dirty, the lift may not work normally.
- **Weekly**: After cleaning the wheel tracks, apply a lubricant (WD-40®, for example) to the wheel tracks to help them roll easily. The wheels are self lubricating.
- **Weekly**: Check all controls, including emergency stop, to make sure they are functioning normally.
- **Weekly**: Check all labels on the Autostacker. Replace them if they are illegible or missing.
- **Every Two Weeks**: Lubricate the grease fittings on the lift. There are four grease fittings on each side of the Autostacker: one where the bottom of the cylinder meets the base, one where the top of the cylinder meets the leg, one on the underside where the two legs cross, and one where the leg meets the top connector tube. We recommend using white lithium grease or similar.
- **Monthly**: Check the Hydraulic Fluid levels. Refill if low.
- **Every two months**: Check all Bolts to make sure they are tight. If not, tighten them.

⚠ WARNING:

Do not operate your Autostacker if you find issues; instead, take it out of service, then contact your Autostacker dealer, visit **autostacker.com/support**, email **support@autostacker.com**, or call **(888) 977-8225**.

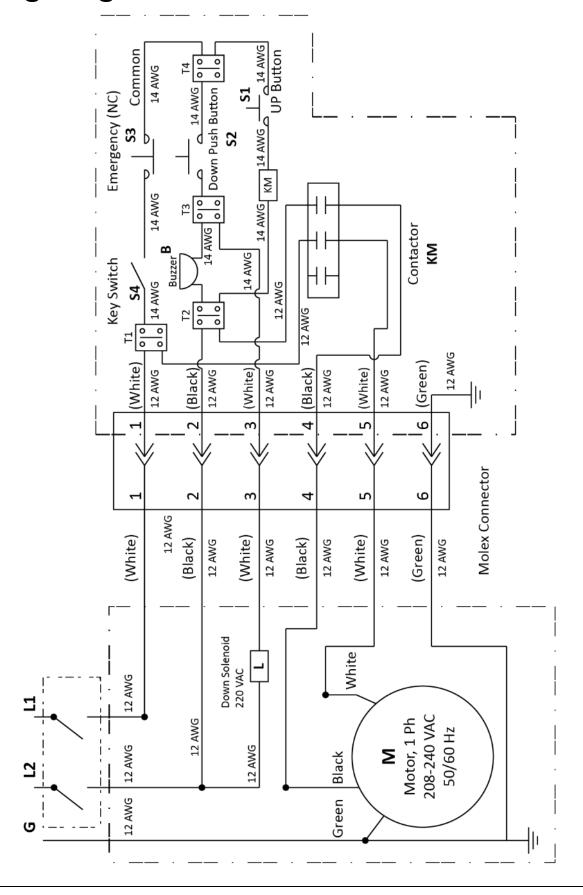
Troubleshooting

This section describes how to troubleshoot your product.

Issue	Action to Take
Platform moves erratically or squeaks when in use.	Move the Platform up and down a few times, with a break between each; there could be residual air in the Hydraulic Lines.
Platform does not go up or	Make sure there is sufficient Hydraulic Fluid in the reservoir.
down.	Make sure there is no air in the Hydraulic System.
	Make sure none of the Hydraulic Lines are pinched or leaking.
	Make sure the Power Unit is getting power.
	If the Hydraulic Fluid is dirty, replace it with clean Hydraulic Fluid.
	Make sure lift is not overloaded.
	Lowering value may be clogged. Remove the valve, then check the valve opening for blockage; clear blockage if found.
Hydraulic Fluid is 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.
Lift makes odd noises.	Lubricate hinge points using white lithium grease.
The Platform is slowly lowering.	Make sure the Autostacker is on a Safety Lock (if not, Hydraulic Fluid could be leaking out, lowering the Platform).
Motor not running.	Check connection to power source.
	Check the wiring diagram.

If your Autostacker continues to have issues, contact your Autostacker dealer, visit **autostacker.com/support**, email **support@autostacker.com**, or call **(888) 977-8225**.

Wiring Diagram



Labels

A AUTOSTACKER



MOVING MACHINERY
KEEP HANDS AND FEET
CLEAR AT ALL TIMES
MAQUINARIA EN MOVIMIENTO. MANTENGA
LAS MANOS Y PIES ALEJADOS EN TODO MOMENTO



BendPak. Santa Paula, CA USA www.bendpak.com
MODEL NUMBER

DESCRIPTION

LIFT CAPACITY

DATE OF MFG.

VOLTAGE

110-240V, 50-60 Hz, 1 Ph
208-240V, 50-60 Hz, 3 Ph
208-440V, 50-60 Hz, 3 Ph
Paccamact Flower

Bencamact Flower

Bencama









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PLEASE READ A A WARNING -

- . Read the owner's manual in its entirety before operating this parking lift.
- ALWAYS use caution when operating this lift.
- · ALWAYS ensure adequate clearance BEFORE driving vehicle under lift platform.
- . NEVER place any object or any part of your body on or near any part of the lift during operation. Serious injury or death can occur. Never allow children or persons under the influence of drugs or alcohol to use this lift.
- Serious injury, property damage, and/or death can occur if this lift is improperly used.
- · Keep hands and feet clear from all moving parts. Keep clear of lift when lowering. Avoid pinch points.
- Only trained operators should operate this lift. All non-trained personnel should be kept away. . NEVER let non-trained personnel come in contact with, or operate lift.
- Stay alert and watch what you are doing. Use common sense and always be aware of
- . NEVER leave the lift unattended when partially raised and not resting on a safety lock.
- your surroundings.
 - MONTHLY INSPECTIONS
 - An inspection should be performed on a monthly basis. Only trained personnel should perform inspections.

 Every monthly inspection should include but not be limited to the following:
- ✓ Clear all debris from floor-mounted safety lock components. ✓ Conduct visual inspection of structural components and other critical Components and other
- ✓ Check all emergency and safety devices.
- ✓ Ensure lubrication of all moving parts.
- ✓ Check for loose/missing parts.
- ✓ Inspect hydraulic system for leaks.
- Check all controls and their functions for proper operation.
 Check all emergency and safety devices.
 Check for any abnormal noise or vibrations. ✓ Verify proper placement of all warnings and control markings.
 - sure owner's manual is kept in close proximity.
 - ✓ Check additional items as outlined in operation and service manuals.

ALWAYS keep hydraulic system free of debris. Fluid contaminate can result in hydraulic system failures. DO NOT mix hydraulic fluids. Incompatible fluids can contamintate hydraulic system.



A WARNING **NO RIDERS** Falling can cause SERIOUS INJURY or DEATH.







. REFRAIN from raising empty lift platform. The lift is designed to be lowered with

. Guard against electric shock. This lift must be grounded while in use to protect the

. Risk of explosion. This lift has internal arcing or sparking parts which should not be

Check for damaged parts. Check for alignment of moving parts, breakage of parts, or

. NEVER remove safety related components from the lift. DO NOT use lift if safety related

Keep control handles and/or buttons dry, clean and free from grease and oil.

any condition that may affect safe operation of the lift. DO NOT use lift if any

Maintain lift with care. Keep lift clean for better and safer performance. Follow manual

weight. Empty platforms will lower slowly.

for proper lubrication and maintenance instructions.

operator from electric shock.

exposed to flammable vapors.

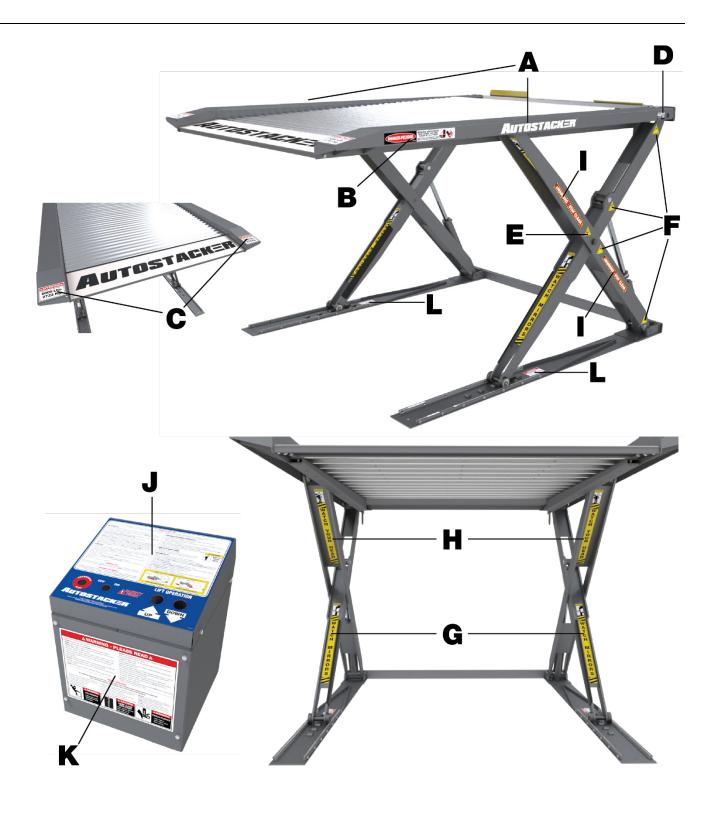
component is broken or damaged.

components are found damaged or missing.

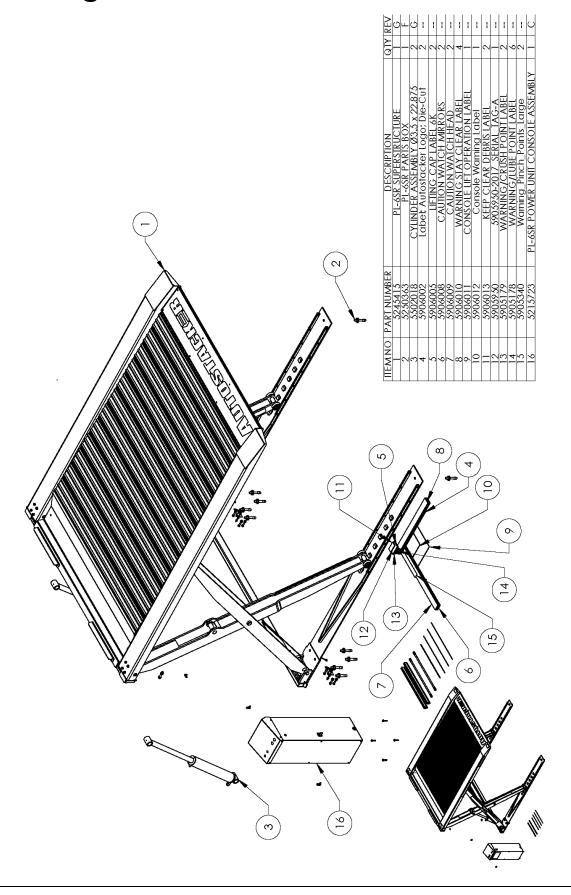
AWARNING PINCH POINTS Keep clear of

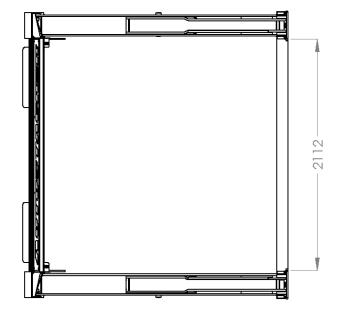
pinch points when

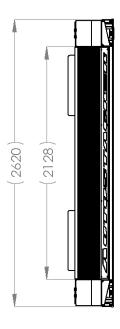
lift is moving.

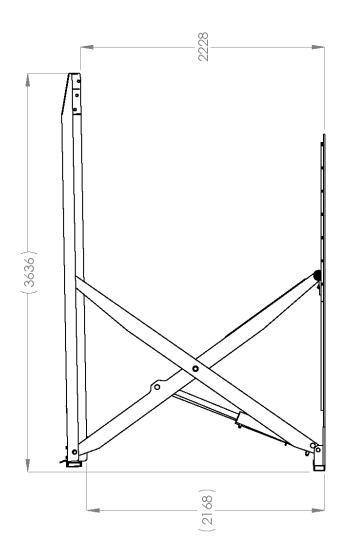


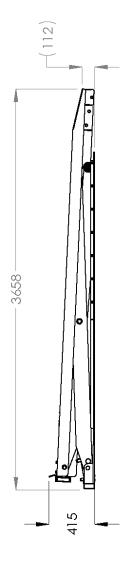
Parts Diagrams

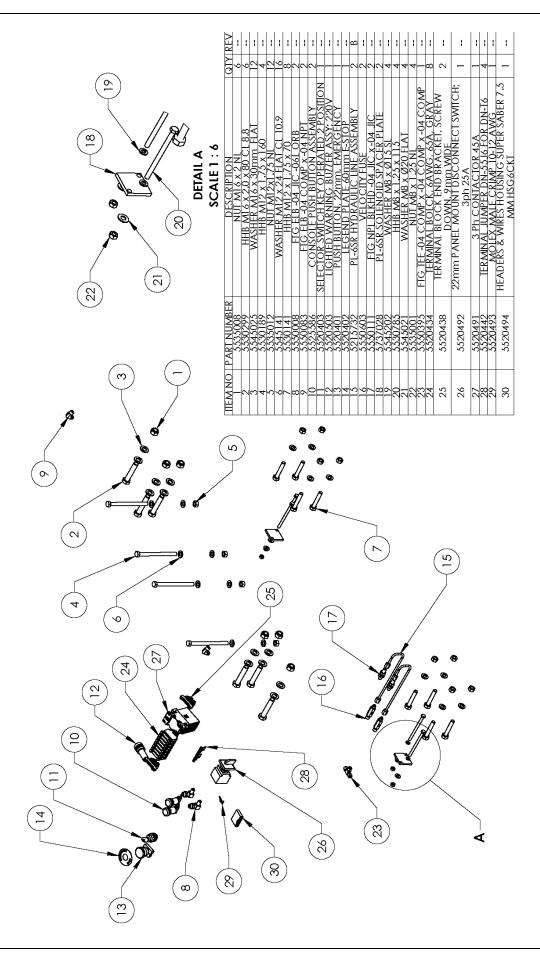




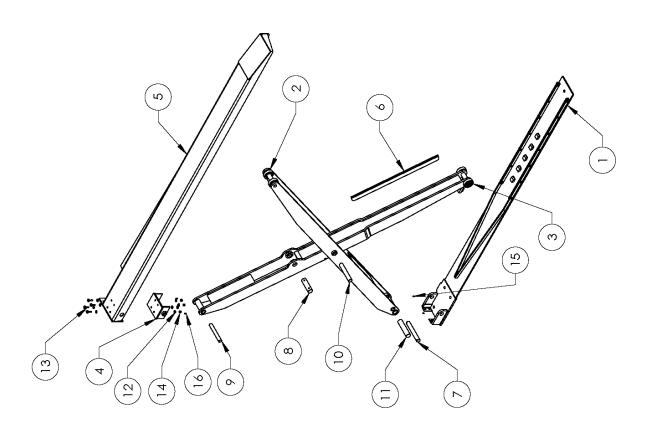




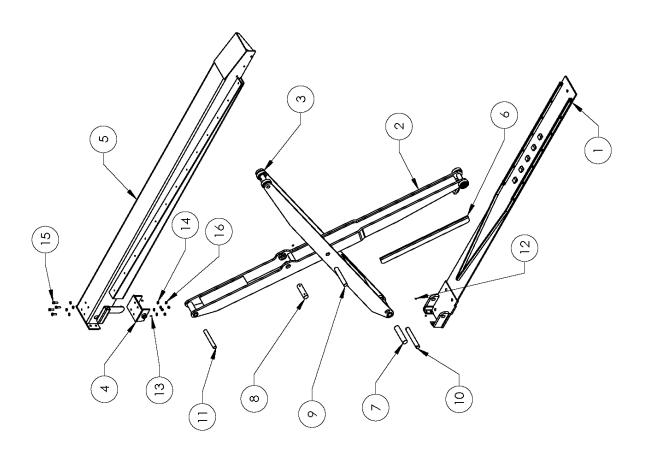


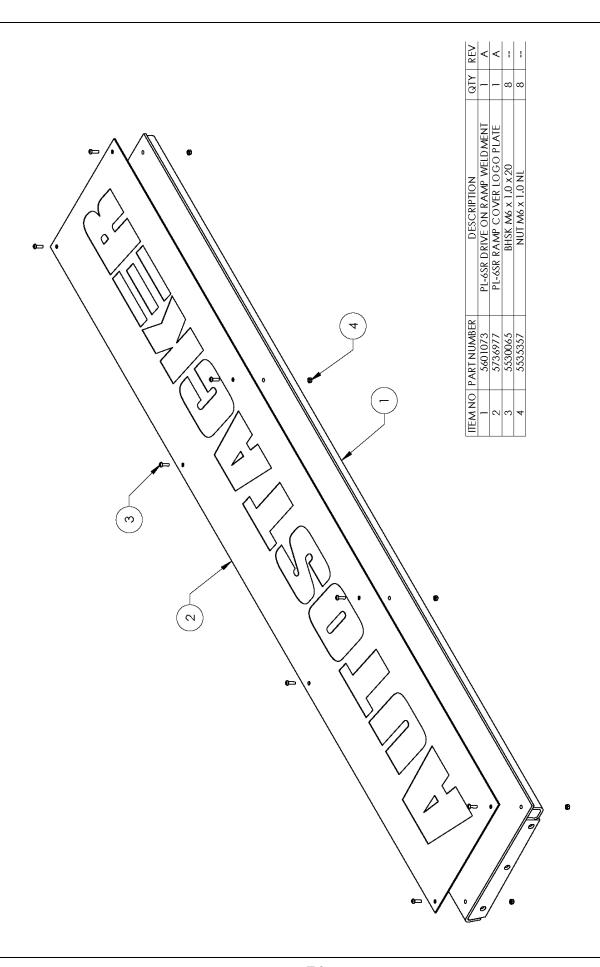


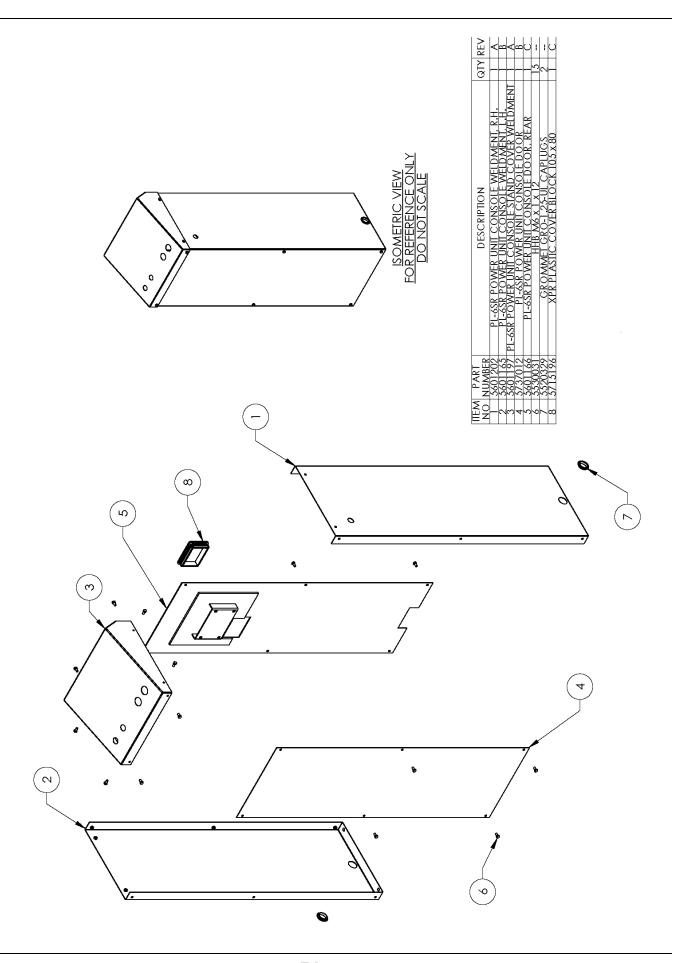
ITEM NO	ITEM NO PART NUMBER	DESCRIPTION	QTY	REV
_	5215463	PL-6SR BASE ASSEMBLY, LH	1	Ш
2	5215460	PL-6SR OUTTER SCISSOR ARM ASSEMBLY, LH	-	ပ
3	5215461	PL-6SR INNER SCISSOR ARM ASSEMBLY	_	ပ
4	0801099	PL-6SR UPPER PIVOT MOUNT WELD MENT	1	A
5	5401054	PL-6SR RAMP RAIL WELDMENT, L.H.	-	O
9	5716035	PL-6SR DOOR STOP RUBBER PAD	_	<
7	5746388	PL-6SR OUTER SCISSOR ARM TOP PIVOT PIN	_	A
8	5746414	PL-6SR INNER SCISSOR ARM CYLINDER PIN	1	A
6	5746412	PL-6SR INNER SCISSOR ARMTOP PIN	_	V
10	5746411	PL-6SR MAIN SCISSOR PIN	_	A
	5746413	PL-6SR OUTTER SCISSOR ARM CYLINDER PIN	1	A
12	5545141	WASHER M12 x 24 FLAT CL 10.9	8	:
13	9110855	HHB M12 x 1.75 x 40	4	:
14	2105859	NUT M12x1.75 NL	4	1
15	8015855	SOCKET SET SCREW M8x1.25x12mm L	2	1
16	5530324	SSS M8 × 1.25 × 16 SL	3	}

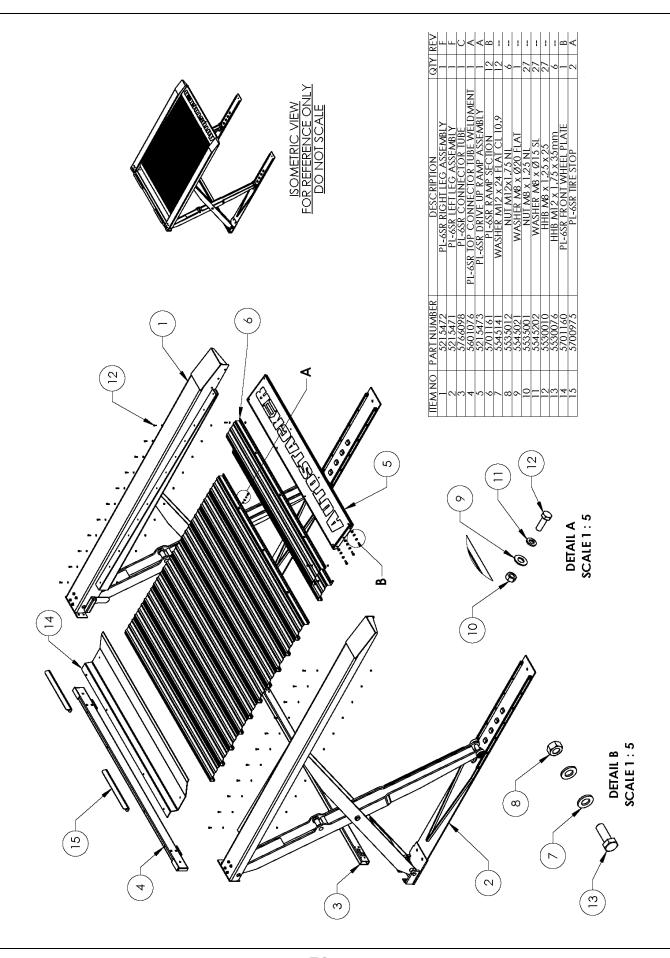


QTY REV	Α	ပ	ပ	Y	Ω	¥	A	A	A	A	A	1	1	:	:	:
QTY	_	_	_	_	_	_	_	-	-	-	_	2	3	8	4	4
DESCRIPTION	PL-6SR BASE ASSEMBLY, RH	PL-6SR INNER SCISSOR ARM ASSEMBLY	PL-6SR OUTTER SCISSOR ARM ASSEMBLY, RH	PL-6SR UPPER PIVOT MOUNT WELDMENT	PL-6SR RAMP RAIL WELDMENT, R.H.	PL-6SR DOOR STOP RUBBER PAD	PL-6SR OUTTER SCISSOR ARM CYLINDER PIN	PL-6SR INNER SCISSOR ARM CYLINDER PIN	PL-6SR MAIN SCISSOR PIN	PL-6SR OUTER SCISSOR ARM TOP PIVOT PIN	PL-6SR INNER SCISSOR ARM TOP PIN	SOCKET SET SCREW M8x1.25x12mm L	SSS M8 × 1.25 × 16 SL	WASHER M12 x 24 FLAT CL 10.9	HHB M12 x 1.75 x 40	NOT M12x1,75 NL
ITEM NO PART NUMBER	5215496	5215461	5215462	5601080	5401075	5716035	5746413	5746414	5746411	5746388	5746412	5535108	5530324	5545141	5530116	5535012
ITEM NO	1	2	ဂ	4	5	9	7	8	6	10	111	12	13	14	15	91

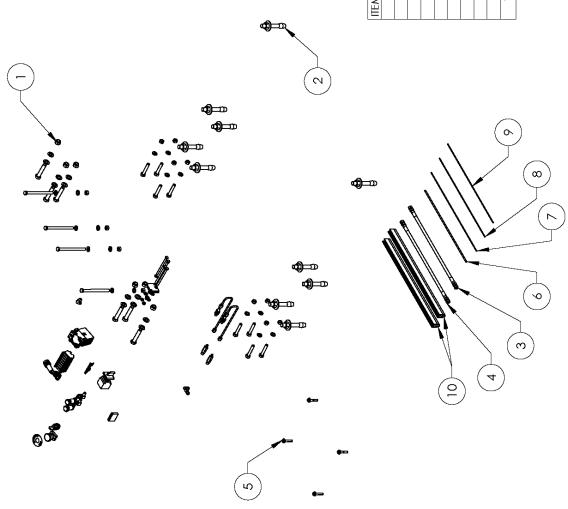








REV	ш	:	ပ	<	;	1	:		;	1
QTY	-	10	_	_	4	9500mm*	400mm	400mm	400mm	914mm*
DESCRIPTION	PL-6SR P ARTS BAG	AB 3/4" x 4 - 3/4"	HYD HOSE ASSEMBLY Ø6.4 x 1620mm DS	PL-6SR HOSE ASSY Ø6.4 x 4166mm DS	AB Ø3/8" x 2-1 /4"	1/4" POLY-FLO TUBING	WIRE, AWG 12, GREEN, STRANDED, PVC	WIRE, AWG 12, BLACK, STRANDED, PVC	WIRE, AWG 12, WHITE, STRANDED, PVC	FOAM RUBBER EDGE TRIM
EM NO PART NUMBER	5174017	5530456	5570179	5570220	5530326	56/0/55	5520126	5520123	5520657	5520031
EM NO	_	2	3	4	5	9	7	8	6	10



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