

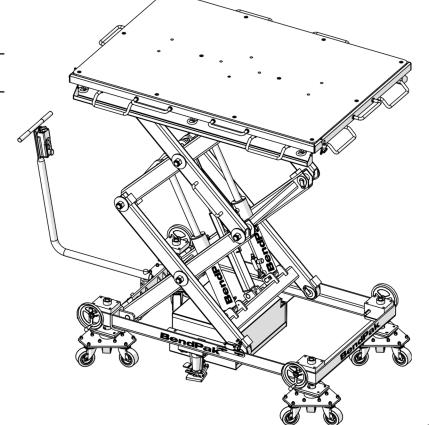
1645 Lemonwood Dr. Santa Paula, CA, 93060 USA Toll Free: (800) 253-2363 Telephone: (805) 933-9970 bendpak.com

MOBI-EVS[™] EV Battery and Powertrain Lifting System Setup and Operation Manual

Manual 5900267 — Revision B — April 2023

Model:

- EV2400SL
- EV4000SL



Patent Pending

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



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

Manual. MOBI-EVS[™] Battery and Powertrain Lifting System, Models EV2400SL and EV4000SL, *Setup and Operation Manual*, Manual Part Number 5900267, Revision B, released April 2023.

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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. The latest version of this manual is available at **www.bendpak.com/manuals** or by scanning the QR code.



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 for full warranty details.

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. 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 verify all labels are clean and visible.
- BendPak makes no promises, guarantees or assurances that our products meet any state, county, federal or international mandated permit, license, code, standard, certification, or any other mandate other than what is listed or shown on BendPak website(s), or any BendPak or Ranger online or published catalog. Not all BendPak Lift models meet the standards as prescribed by ANSI/ALI ALCTV-(current edition) or ANSI/UL 201. Consult www.autolift.org for a complete list of Lift models that meet ANSI/ALI ALCTV or ANSI/UL 201 or contact BendPak via contact@bendpak.com. Buyer assumes full responsibility for any state, county, federal or international mandated permit, license, code, standard, certification, or any other mandate required related to the installation and/or operation of any BendPak or Ranger product. BENDPAK will not be responsible for any charges, fines, liens, or other levies imposed on the Buyer related to any special or regional structural, seismic or any other building code and/or codes such as the Uniform Building Code (UBC), International Building Code (IBC), or any other state, county, federal or international mandated permit, license, code, standard, certification, or other agency, government, administrations, or corporations whether state, county, federal, or international mandated.

• Only use this Lift if it can be used safely!

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

| Model: | | | |
|--------|--|--|--|
| | | | |

Serial: _____

Date of Manufacture:





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Introduction

This manual describes the setup and operation of two MOBI-EVS™ models:

- **EV2400SL** Battery-Powered, Full Rise Mobile Scissor Lift Table for safely servicing Electric Vehicle Battery Packs and Powertrains weighing up to 2,400 lbs. / 1,087 kg.
- **EV4000SL** Battery-Powered, Full Rise Mobile Scissor Lift Table for safely servicing Electric Vehicle Battery Packs and Powertrains weighing up to 4,000 lbs. / 1,814 kg.

This manual is mandatory reading for all users of the MOBI-EVS[™] EV Lift Table System, including anyone who sets up, operates, maintains, or repairs them. Keep this manual on or near the equipment so that anyone who uses or services the Lift can access it.

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**, option 7 then 4.

Online chat is also available at **www.bendpak.com** click the chat icon.

Scan this QR Code for up-to-date information and videos on the MOBI-EVS Lifting System.



Shipping Information

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

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

If you discover missing or damaged goods *after* you receive the shipment and have signed the bill of lading, notify the carrier at once and request the carrier to make an inspection. If the carrier will not

make an inspection, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

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

Safety Considerations

Important Safety Instructions, save these instructions! Read this entire manual carefully before installing or using the product. Do not

install or operate the product until you are familiar with all operating instructions and warnings. Do not allow anyone else to operate it until they are familiar with all operating instructions and warnings.

▲ WARNING California Proposition 65 Warning. This product can expose you to chemicals including styrene and vinyl chloride which are on the list of over 900 chemicals identified by the State of California to cause cancer, birth defects or reproductive harm. ALWAYS use this product in accordance with BendPak's instructions. For more information go to www.P65Warnings.ca.gov.

IMPORTANT SAFETY INSTRUCTIONS!

- 1. Read all instructions.
- The MOBI-EVS Lift is a Battery Powered Full-Rise Scissor Lift designed for servicing Electric Vehicle Battery Packs and Powertrains. Use it only for its intended purpose. Improper use of this Lift could cause severe injury or death.
- 3. Always keep the load's Center of Gravity centered and balanced on the Lift's top deck.
- 4. The Lift is intended for *indoor use only*, *outdoor use is prohibited*.
- 5. The product should be operated by authorized and properly trained personnel only. Training includes reading and understanding the safety, operation and maintenance sections of this manual and warning labels on the Lift.
- 6. You **must** wear OSHA-approved (Publication 3151) Personal Protective Equipment at all times when installing, using, maintaining, or repairing the Lift. Leather gloves, steel-toed work boots, ANSI-approved back belts, and hearing protection **are mandatory**.
- 7. Always wear safety glasses! Everyday glasses only have impact resistant lenses, they are not safety glasses.
- 8. Do **not** work under a raised Lift top deck until the load is removed and the Lift is securely blocked in the raised position with an upright support stand or equal.
- 9. **Never** sit, stand, or ride on the Lift top deck. Moving components can cause a loss of balance resulting in severe personal injury or death.
- 10. **Always** verify the Lift is resting firmly on the adjustable Floor Lock prior to raising or lowering a load on the Lift.
- 11. Do **not** move the Lift while the load is raised; lower the load completely before moving or storing the load. Minor adjustments (less than 12 in. / 305 mm) when attempting to align battery Packs or Powertrain components are acceptable.
- 12. Care must be taken as burns can occur from touching hot parts.

- 13. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged until it has been examined by qualified service personnel.
- 14. Do not let a cord hang over the edge of a table, bench, or counter, or come in contact with hot manifolds or rotating machinery.
- 15. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords with a current rating less than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- 16. Always unplug the equipment from the electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp the plug and pull to disconnect. Secure the control pendant and cable to prevent damage when storing.
- 17. Let the equipment cool completely before putting away. Loop the cord loosely around equipment when storing.
- 18. To reduce the risk of fire, do not operate in the vicinity of open containers of flammable liquids (gasoline or similar).
- 19. Adequate ventilation should be provided when working on operating internal combustion engines.
- 20. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
- 21. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
- 22. Use only as described in this manual. Use only BendPak recommended attachments and accessories.
- 23. To reduce the risk of injury, close supervision is necessary when this product will be used around children.
- 24. To reduce the risk of injury, *never* attempt to lift more than the rated capacity. Refer to loading instructions.
- 25. The Lift uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them after connecting the Lift to a power source.
- 26. Only operate your Lift between temperatures of +41°F to +104°F (+5°C to +40°C).
- 27. The Lift should **only** be operated by authorized personnel. Keep children and untrained personnel away from the Lift.
- 28. Do not make any modifications to the Lift; this voids the warranty and increases the chance of injury or property damage.
- 29. Do not use the Lift while tired or under the influence of drugs, alcohol, or medication.
- 30. Consider the work environment. Keep the work area clean. Cluttered work areas invite injuries. Keep areas well lit.
- 31. **Always** make sure the Lift is secured on safety locks before attempting to work on or near a Vehicle.
- 32. Make a thorough inspection of the product at least once a year. Replace any damaged or severely worn parts, decals, or warning labels. Replace worn or damaged parts with BendPak or BendPak approved parts and assemblies only.
- 33. Keep loads balanced on the Lift Platform. Clear the area immediately if a load is in danger of falling off the Lift.
- 34. Do not make any modifications to the Lift. Modifications void the warranty and increases the chance of injury or property damage. Do not modify any safety-related features in any way.

- 35. Make sure all operators read and understand this Setup and Operation Manual. Keep the manual near the Lift at all times.
- 36. While handling a hydraulic cylinder or a hydraulic hose, **always** wear gloves. In rare cases, a needle-like stream of hydraulic fluid (even at low pressure) can penetrate fingers, hands, or arms; such a puncture can feel like a bite, electric shock, or a prick. While it may seem like a minor issue, any amount of hydraulic fluid injected into the human body is a serious issue. Anyone suffering such a puncture wound should be **immediately** taken to a hospital emergency room to determine the extent of the injury. Explain the circumstances of the injury to the attending physician, including what kind of hydraulic fluid was involved. Do not assume a puncture wound that could have been caused by hydraulic fluid is a minor issue; it could be life threatening.
- 37. Follow the instructions in this Operating manual and applicable standards for daily, monthly, and annual inspections and maintenance.
- 38. Do not add or replace parts (i.e., batteries, wheels, power units) with items of different weights, specifications, or positions on the Lift. These changes can shift the Lift's Center of Gravity and compromise the stability of the Lift.
- 39. To reduce the risk of electric shock or fire, never overload receptacles. Refer to the labels for the proper load on receptacles.
- 40. Operate this Lift with extreme caution. **Stop** all operation if a malfunction occurs.
- 41. BendPak recommends referring to the ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing your Lift.
- 42. Read and understand the manual section on working with the MOBI-EVS[™] EV Lift Table System and EV Batteries Safely.
- 43. Make an inspection of the Lift **before** using it. Check for damaged, worn, or missing parts. Do not use it if you find any of these issues. Instead, take it out of service, then contact an authorized repair facility, your dealer, or BendPak at **(877) 432-6627** or **support@BendPak.com**.

Save these instructions!

Hydraulic System Warnings

Before applying power to the hydraulic system, note the following Warnings:

- **WARNING** Failure to observe these warnings can result in serious personal injury including, in rare cases, death.
- **WARNING** The hydraulic hoses and connections **must** be inspected before any attempt to raise a load is made.
- **WARNING** Verify all hydraulic hose connections and fittings, including unused auxiliary port plugs on the Power Unit, the cylinders, and anywhere else in the hydraulic system are tightened.
- **WARNING** The Power Unit is a hydraulic pump capable of developing pressures in excess of 5,000 psi (345 BAR). A pressure relief valve is used to set the pressure at the desired level. Tampering with, adjusting, modifying, or removing the relief valve is extremely dangerous and allowed. Only trained hydraulic technicians should adjust the relief valve, using calibrated hydraulic pressure gauges to assure the proper pressure setting is achieved.

| | Changes to the output pressure of the Power Unit may render the Power Unit incompatible with pressure limitations of other components in the hydraulic circuit. This may cause catastrophic failure of those components, and could result in property damage, serious personal injury, or death. |
|-----------|---|
| A WARNING | The hydraulic system can contain high pressure which, if suddenly released, can cause severe injury or death. |
| A WARNING | Do not attempt to connect or disconnect hydraulic hoses while the equipment is loaded or while a Vehicle is on the Lift, or the hydraulic system is under pressure. |
| A WARNING | Keep bare hands away from hydraulic fluid; always wear gloves when handling hydraulic fluid, cylinders or hydraulic hoses. |
| A WARNING | When handling hydraulic fluid, always observe the safety instructions from the manufacturer. |
| | Always promptly clean any hydraulic fluid spills. If a leak is the source of the spill, lockout the Lift to prevent use until the hydraulic system is repaired. |
| | Use every precaution to guard against dirt entering the hydraulic system; this could affect the operation of the Lift and the safety of anyone near the Lift. |

Working with the MOBI-EVS[™] and EV Batteries Safely

High-voltage cabling and components are capable of delivering a fatal shock. Some EV components may retain hazardous voltages well after the vehicle has been shut down. Always refer to the vehicle manufacturer's instructions for safe installation/removal procedures, techniques, required tools and training.

| A DANGER | This Lift is not insulated and not electrically grounded to Earth. The Lift will not provide protection from electrical current to anyone in contact with it. Stay away from the Lift if it is in contact with high voltage. Do not touch or operate the Lift until the electrical current is removed and made safe in all respects. |
|----------|--|
| A DANGER | Often a large section of an Electric Vehicle's undercarriage holds the high voltage battery; Never breach the high voltage battery when lifting from under the Vehicle . Use every precaution to ensure that you do not breach the floor pan. |
| A DANGER | Technicians should always be fully trained and read the Vehicle's Original Equipment Manufacturers' (OEM) high voltage disabling procedures and precautions before working on hybrid and electric Vehicles. Additional resources are available from the Society of Automotive Engineers (SAE). |
| A DANGER | Avoid contact with the Vehicles' high-voltage cables unless the high-voltage battery has been disconnected. Proper personal protective equipment should include heavy, rubber, Class 0 rated gloves. Ordinary shop gloves are not thick enough nor designed to protect against high voltage. The gloves should be inspected to verify no pin holes, cracks, tears, or splits are present. |

| | Use caution to ensure you never come into contact with the Vehicle's high voltage Battery Terminals, exposed wiring, circuitry, or other high voltage components while lifting or manipulating the Vehicle's Battery. |
|-----------|--|
| A DANGER | Regardless of the disabling procedure in use, always assume that high voltage components in the Vehicle are energized; cutting, crushing, or simply touching high voltage components can result in severe injury or death . |
| A DANGER | Most Vehicles' high voltage circuit may require up to 15 minutes or more to fully de-energize; refer to Vehicle manufacturer's guidelines for the proper de-energizing procedure. |
| A DANGER | Damaged batteries are capable of releasing explosive gases and harmful liquids if damaged or mishandled. |
| A DANGER | Look for color-coded high voltage cables in hybrid and electric vehicles. These colors warn of potential danger. Usually, these cables are orange, but some models use blue cables. Check with the Vehicle manufacturer to identify the correct color code. Exercise extreme caution if these cables appear damaged. |
| A WARNING | Most Electric Vehicles with high voltage Batteries include a liquid cooling system. Take precautions to ensure that the cooling system is drained or will not spill its contents onto the Lift or the Lift's electrical components, Refer to the vehicle manufacturer's service guides. |

Symbols

Following are the symbols used in this manual:

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

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

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

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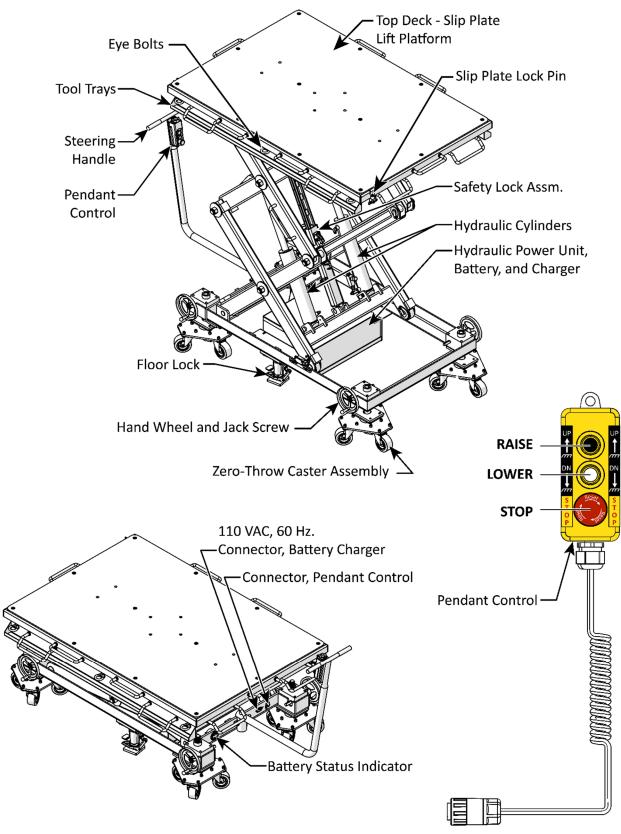
Calls attention to information that can help you use your product better.

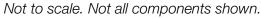
Liability Information

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

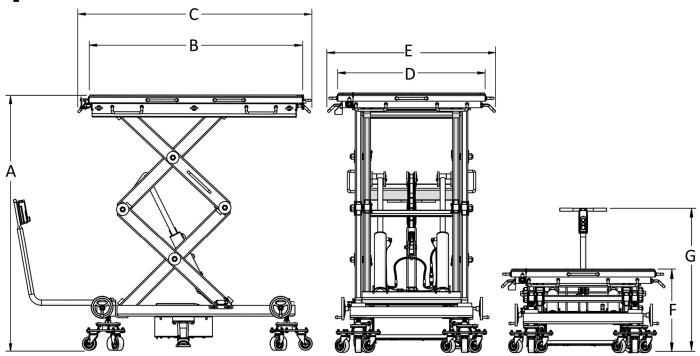
- Use of the product for purposes other than those described in this manual.
- Modifications to the equipment without prior, written permission from BendPak Inc.
- Injury or death caused by modifying, disabling, overriding, or removing safety features.
- Damage to the equipment from external influences.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

Components





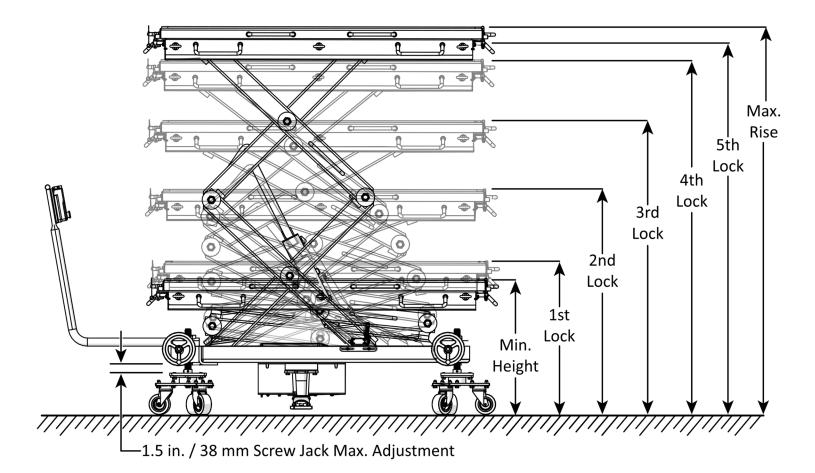
Specifications



MOBI-EVS™ Battery and Powertrain Lifting System

| Model | EV2400SL | EV4000SL | |
|---------------------------------|--|-----------------------|--|
| Lifting capacity | 2,400 lbs. / 1,089 kg | 4,000 lbs. / 1,814 kg | |
| A Maximum Rise | 75.75 in. / 1,925 mm | 76.25 in. 1,938 mm | |
| B Top Deck length | 62.50 in. / 1,589 mm | | |
| C Overall length (with Handles) | 68.25 in. / 1,734 mm | | |
| D Top Deck width | 42.25 in. / 1,070 mm | | |
| E Overall width (with Handles) | 48.75 in / 1,240 mm | | |
| F Minimum height | 28.25 in. / 720 mm | 28.75 in. / 733 mm | |
| G Height of Steering Handle | 44.75 in. / 1,137 mm | 45.25 in. / 1151 mm | |
| Motor | 12VDC | | |
| Battery Charger | Input: 120 VAC, 60 Hz / Output: 12VDC, 15A | | |
| Battery Charge Time | 10-12 Hours to full charge from ≈20% | | |
| Lifting Time | 18 seconds | | |
| Weight | 1,519 lbs. / 689 kg | 1,597 lbs. / 724 kg | |

All dimensions measured with screw jacks at maximum height (1.5 in. / 38 mm). Specifications subject to change without notice.



| Safety Lock Position | EV2400SL | EV4000SL |
|----------------------------|----------------------|----------------------|
| Min. Height | 28.25 in. / 720 mm | 28.75 in. / 733 mm |
| 1 st Lock | 33.5 in. / 853 mm | 34 in. / 861 mm |
| 2 nd Lock | 45.5 in. / 1,158 mm | 46 in. / 1,167 mm |
| 3 rd Lock | 55.75 in. / 1,414 mm | 56 in. / 1,423 mm |
| 4 th Lock | 64.75 in. / 1,647 mm | 65.25 in. / 1,657mm |
| 5 th Lock | 73.5 in. / 1,870 mm | NO LOCK |
| Max. Rise | 75.75 in. / 1,925 mm | 76.25 in. / 1,938 mm |
| Screw Jack Max. Adjustment | 1.5 in. / 38 mm | 1.5 in. / 38 mm |

Note: All dimensions shown with screw jacks adjusted to maximum (1.5 in. / 38 mm). Specifications subject to change without notice.

Setup

This section describes how to setup Mobi-EVS Lifting System for operation. Only fully trained personnel should be involved in the setup and operation of this equipment. **Pay attention at all times.** Use appropriate tools and equipment. Stay clear of moving parts and live electrical components.

BendPak recommends referring to the ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service* for more information on safe setup, operation, and service of your Lift.

- **WARNING** Always use the proper tools, such as a forklift, shop crane or hoist, to move heavy components.
- **WARNING** You must wear the proper protective equipment at all times during setup and operation of this Lift: leather gloves, steel-toed boots, back belts, and hearing protection.
- WARNING Use only the factory-supplied parts that came with your Lift. If you use parts from a different source, you void your warranty and compromise the safety of everyone who installs or uses the Lift. If you are missing parts, visit bendpak.com/support or by phone at (800) 253-2363, option 7 then 4.

Tools and Supplies required:

- Forklift, or shop crane/hoist
- Pry Bar
- Hammer
- Screwdrivers
- Hex Key set SAE and Metric
- Wrench set, open and closed end. SAE and Metric

Select a Site for Setup and Operation

Find a location for assembly near where you will be using your Lift. Keep the following in mind when selecting a site:

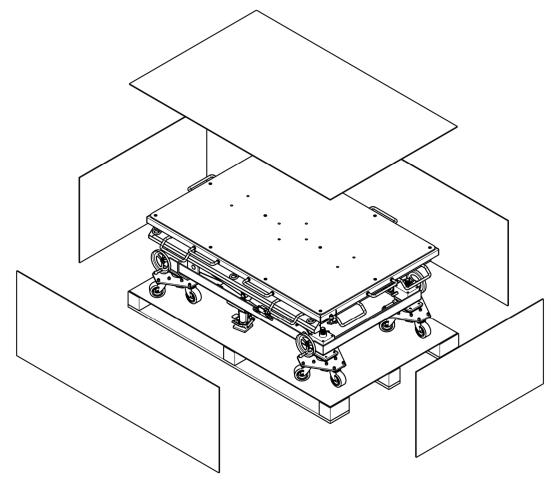
- **Clearance**. You must have adequate unobstructed space on all sides, plus enough space above the Lift for assembly and testing.
- **Operator**. The operator at the control pendant *must* have a full, unobstructed view of the Lift at all times.
- **Level floor**. Inspect the floor and check for defective concrete. Verify the floor is dry, level, in good condition, and has a minimum compressive strength of 500 psi.
- **WARNING** Do not operate the Lift on a surface with a slope of 3° or greater. A sloped surface can cause a loss of lift control/balance leading to property damage, personal injury, or death.
 - **Outdoor installation**. The Lift *cannot* be installed outside. It is intended for indoor use only.

Unpacking

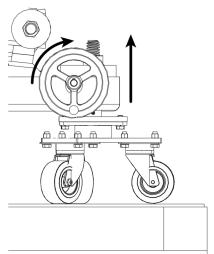
To remove the Lift from its shipping crate you will need a Hammer and Pry Bar, a Hoist or Shop Crane or Forklift. Follow the procedure below.

To unpack the Mobi-EVS Lifting System using a Forklift:

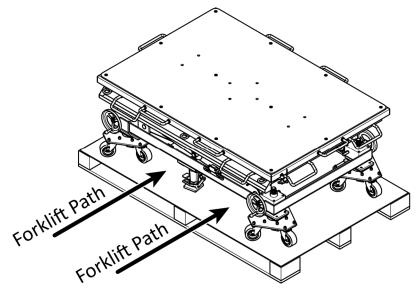
- 1. Use a Pry Bar and Hammer to remove the top and all four sides of the shipping crate. See figure below.
- MARNING Exercise caution not to damage the Lift while removing it from the shipping crate.



- 2. Remove the Mobi-EVS Component Parts on top of and from below the Lift. Set these components aside where they will not be lost or damaged.
- 3. Remove any strapping securing the Lift to the pallet.
- 4. Rotate the Hand Wheel on all four corners of the Lift to raise the Lift off of the shipping support blocks located between the Lift and the shipping pallet.
- 5. Remove the shipping support blocks to clear a path for the Forklift.



6. Use a Forklift to carefully remove the Lift from the shipping pallet. Follow the Forklift path detailed below. Use the Forklift to move the Lift to a safe place to continue the setup.



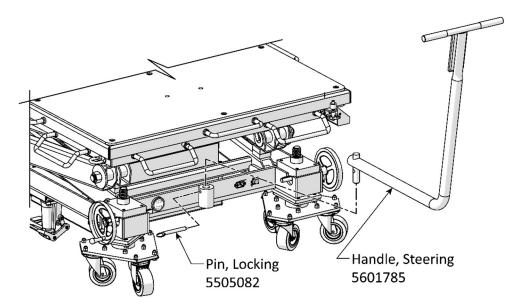
Not drawn to scale. Components removed for clarity.

Install the Steering Handle Assembly

The Steering Handle Assembly must be connected to the Lift using a locking Pin.

To install the Steering Handle Assembly:

- 1. Retrieve the Steering Handle Assembly (5601785) and Locking Pin (5505082).
- 2. Attach the Steering Handle Assembly and Locking Pin as detailed in the figure below.



Not drawn to scale. Not all components shown.

3. Attach the Steering Handle Assembly (5601785) to the Lift using the Locking Pin (5505082)) as shown in the figure above.

Install the Tool Trays and Top Deck Handles

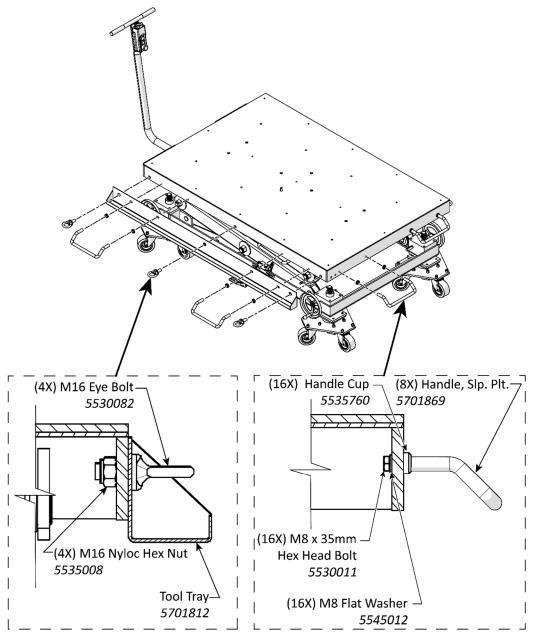
Follow the procedure below to install the Tool Trays.

To install the Tool Trays:

1. Retrieve the following components:

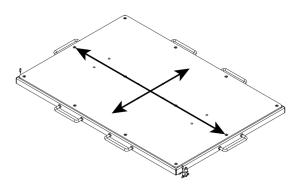
| Qty. | Part Number | Description | Qty. | Part Number | Description |
|------|----------------|-----------------------|------|----------------|-------------------|
| 2 | 5601694 | Tool Tray Weldment | 16 | 5545012 | M8 Flat Washer |
| 8 | 5701869 | Handle, Deck | 6 | 5530082 | M16 Eye Bolt |
| 16 | 5335760 | Handle, Cup | 6 | 5535008 | M16 Nyloc Hex Nut |
| 16 | 5530011 | M8 x 35 Hex Head Bolt | | | |

2. Attach handles and tool trays on both sides as detailed in the figure below. Not drawn to scale. Components removed for clarity.



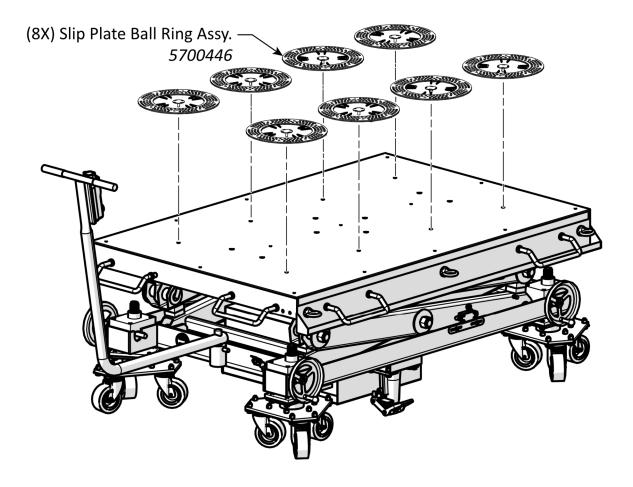
Install the Slip Plate Assembly

The Slip Plate Assembly (SKU 5216119) uses ball transfer load slides to allow small smooth load adjustments without moving or repositioning the entire Lift. The slip plate allows smooth travel of \pm .75 in / 19 mm on either side of the centerline on both axes for a total of 1.5 in / 38 mm movement along either axis.

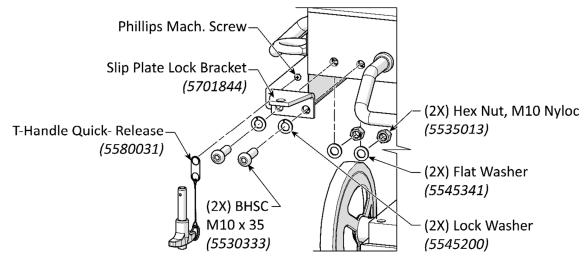


To Install the Slip Plate:

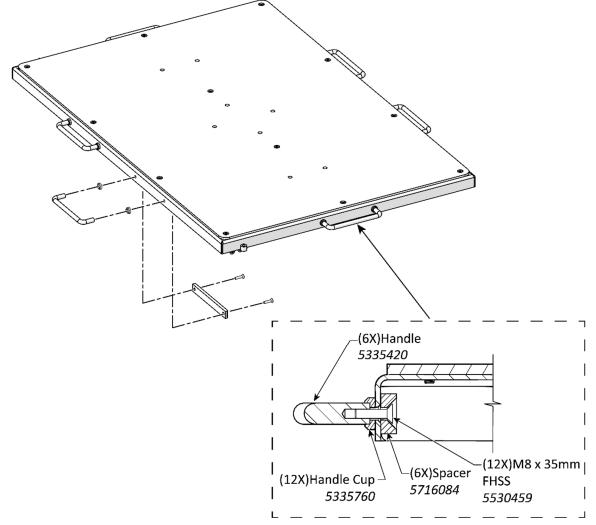
1. Install the eight Slip Plate Ball Ring Assemblies (5700446) on the Lift Deck as shown below.



2. Install the two Slip Plate Locking Brackets on **both** ends of the Lift Deck using the components detailed in the figure below. Allow the T-Handle Quick-Release to hang by its tether off the Phillips Machine Screw until the Bracket and Slip Table are in place.

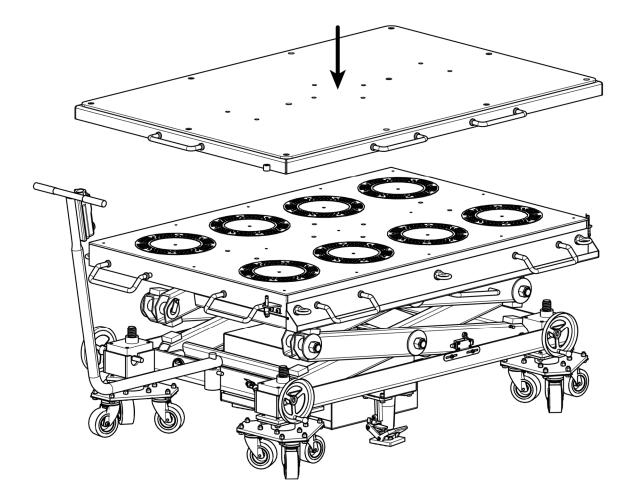


3. Install the six Slip Plate Handles (5335420) on the Slip Plate using the fasteners and spacer as detailed in the figure below.

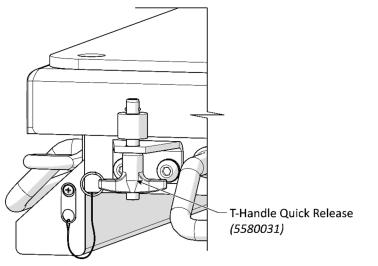


4. Carefully place the Slip Plate Assembly over the Lift Deck. Take care not to drop the Slip plate on the Ball Ring Assemblies.

WARNING The Slip Plate is heavy. Seek assistance when moving the Slip Plate into position.



5. Insert both T-Handle Quick Releases into the Locking Brackets and the Slip Plate Ring to secure the Slip Plate from movement.

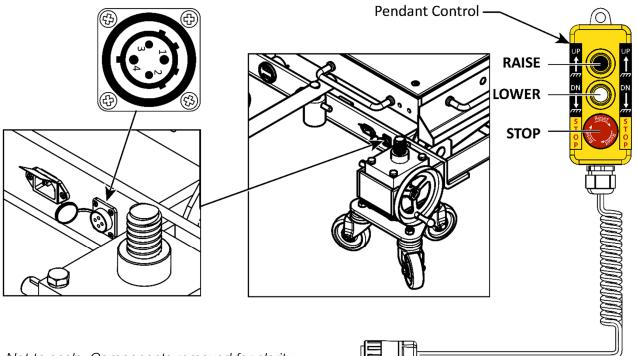


Connect the Control Pendant

The Control Pendant connects to the Lift through a four-pin connector near the steering handle. The control incorporates a strong magnet that will hold the pendant on any convenient steel surface.

To connect the Control Pendant:

- 1. Retrieve the pendant and push the red stop button to put the pendant in the **off** condition.
- 2. Plug the pendant's connector into the mating receptacle on the Lift. The receptacle is mounted on the lift base near the steering handle and the charging port as shown below. Remove the protective cover and mate the connectors. These connectors are keyed and must be correctly aligned to mate. Rotate the pendant connector until it snaps into its mate. Then rotate the collar on the outside of the connector to secure.



Not to scale. Components removed for clarity.

Charging the Lift Battery

When the battery level indicates low, approximately 20%, charge the battery. It typically requires 10 to 12 hours to reach a full charge. The battery charger is a fully automatic constant current charger, utilizing a micro-controller to monitor the charge state of the battery. The Charger includes protection against over-voltage, over-current, reversed polarity and short circuits.

WARNING Use of an incorrect charger for the Lift's battery can result in a battery explosion, severe injury, and property damage. Use only factory-approved replacement parts.

WARNING Do not charge the battery in hazardous locations where potentially flammable or explosive gases are present.

To charge the Lift Battery:

- 1. Verify the top deck is fully lowered, and the Lift is resting on its adjustable floor stops.
- 2. Use the supplied power cord (5324203) to connect the Charger to a 110 VAC outlet. Charging is automatic and begins immediately.

Operation

This section describes how to operate your Lift.

- **DANGER** Crushing hazard and pinch points. Do not place any part of your body between the top deck and any moving part of the Lift, unless the Lift's motion is locked by a Jack Stand, Forklift or equal device that will prevent the Lift's movement.
- A WARNING Hydraulic Fluid under pressure is dangerous. You must always wear OSHAapproved (publication 3151) Personal Protective Equipment when handling hydraulic fluid or components: eye protection, leather gloves, and steel-toed boots are mandatory.

Lift Operation Safety

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

WARNING Never work under the top deck until the load has been removed; do not work under the Lift unless it is secularly resting on a safety lock and or supported by Jack Stands.

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

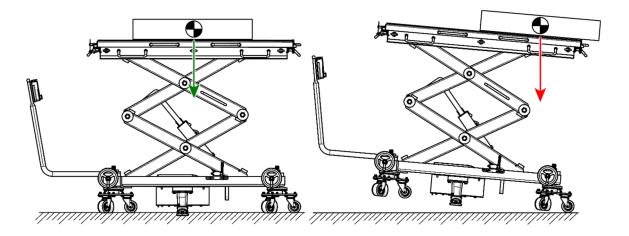
- Check the Lift. Before each use, check the Lift for any missing, heavily worn, or damaged parts. Do not operate the Lift if you find any issues; take it out of service, then contact your dealer, visit bendpak.com/support, by email at support@bendpak.com, or by phone at (800) 253-2363, option 7 then 4.
- **Clearance**. You must have adequate space on all sides, plus enough space above for the loads you will be raising and lowering.
- **Check the operators**. Make sure everyone who operates the Lift has been trained in its use, has read the labels on the unit, and has read the manual. Only the operator should be within 30-feet of the Lift when it is in motion.
- **Check for safety**. Make sure everyone who is going to be near the Lift is aware of its presence and takes appropriate safety measures. When lowering the Lift, do not leave it until it is fully lowered. Do not allow children to operate the Lift. Do not allow anyone under the influence of drugs or alcohol to operate the Lift.
- **Use the Emergency Stop** button to stop the Lift at any time.
- Use the Floor Locks when Lifting or lowering a load. The floor locks will prevent unintended Lift movement when using the Lift.
- **Operator**. The operator at the control pendant must have a full, unobstructed view of the Lift.
- Level floor. Inspect the floor and check for defective concrete. Verify the floor is in good condition, dry, level, and has a minimum compressive strength of 500 psi. Do not attempt to roll the Lift over broken or severely cracked concrete.
- **WARNING** Do not operate the Lift on a surface with a slope of 3° or greater. A sloped surface can cause a loss of lift control/balance leading to property damage, personal injury, or death.
- **Operating temperature**. The Lift is designed to be used between temperatures of 41° to 104°F (5° to 40°C).

- Outdoor installation. Do not use outdoors. This Lift is designed for indoor use only.
- Use the Floor Locks when Lifting or lowering a load. The floor locks will prevent unintended Lift movement during operation.
- **Center of Gravity**. Keep the load's center of gravity on the centerline of the Lift.
- The load *must* be centered and evenly distributed across the top deck; do not rock the load while raised or remove heavy items that could cause an excessive weight shift.

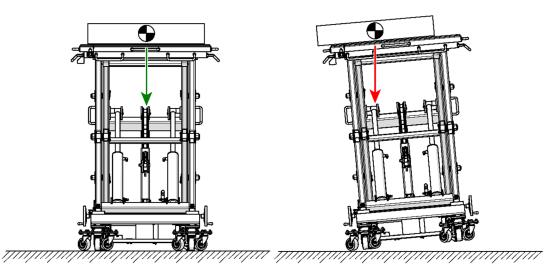
DANGER Tip-Over Hazard! Place the load on the Lift centerline. Loads off the centerline of the Lift risk tipping or damaging the Lift and causing severe injury or damage.







 \triangle DANGER



Additional Operating Information

Keep the following in mind when operating the MOBI-EVS Lift:

- **Before** operation, verify the Lift has a sufficient battery charge (>20%), recharge if necessary.
- Your Lift is portable; if you move it to a new location, verify the location has a hard, flat, level, and dry surface.
- Do not use the Lift in an explosive or flammable location.
- Always verify the Lift top deck is lowered completely **prior** to moving the Lift with or without a load across a Floor.

WARNING Never move the Lift across a floor when the top deck is elevated. Minor adjustments (less than 12 in. / 305 mm) when attempting to align battery packs or Power Train components are acceptable.

- **WARNING** Do not exceed the rated lifting capacity of your Lift at any time for any reason; you could damage the Lift, the components, or the load on the Lift, and injure anyone in the vicinity of the Lift.
- **Keep all body parts away from the Lift when the Lift is in use**; prevent hands and tools from becoming trapped between the Vehicle and top deck.
- Always secure the load to the top deck using the eye bolts and appropriately rated straps.

WARNING Never stand or sit on the top deck to work.

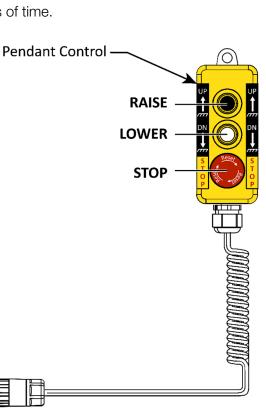
- Do **not** load the Lift with loose or unstable materials.
- Do **not** attempt to move or adjust the load while the Lift is in motion.
- Do not leave the top deck loaded for extended periods of time.

The Control Pendant

The operation of the Lift is controlled through the pendant.

The controls on the pendant are:

- **STOP** Button. Push for Stop. Rotate to restore power. Removes power from the Power Unit and the Lowering Solenoid.
- **UP** button. Applies Power to the Hydraulic Power unit. Moves the top deck up.
- DN Down button. Releases the safety lock to lower the top deck and engages the lowering solenoid. Read About Safety Locks for a more detailed explanation.



Drawing not to scale.

The Flow Control Valve

The Flow Control Valve affects the speed at which the top deck moves up and down by adjusting the flow of hydraulic oil between the cylinders and the Power Unit.

A DANGER Never reach into the Lift to adjust the flow control while the Lift is in motion. Serious Personal Injury may result.

To adjust the Flow Control:

- 1. Access the Flow Control Valve by raising the Lift's top deck (press UP on the Pendant).
- 2. Bring the top deck to rest on the second or third safety lock. Note the speed at which the top deck rises.
- 3. Make small adjustments to the valve $\approx 1/4$ turn at a time.
 - a. To increase the speed, **open** the valve (turn counterclockwise).
 - b. To decrease the speed, **close** the valve (turn clockwise).
- 4. Raise the top deck and note the speed. If the speed is acceptable, lower the top deck and proceed with Lifting operations.
- **Important** The weight on the top deck will affect the Lift's lowering speed. The lighter the load, the slower the lowering speed.

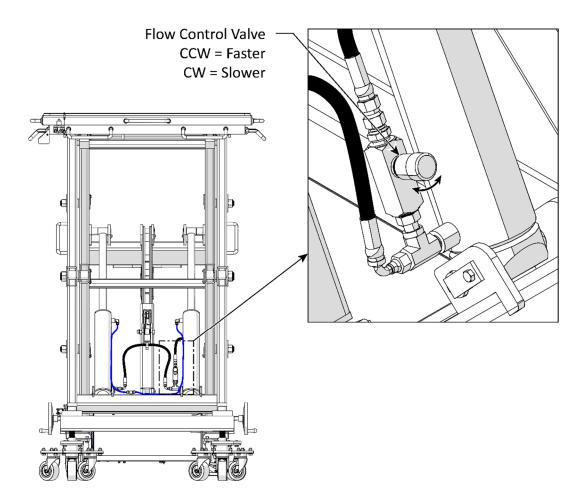
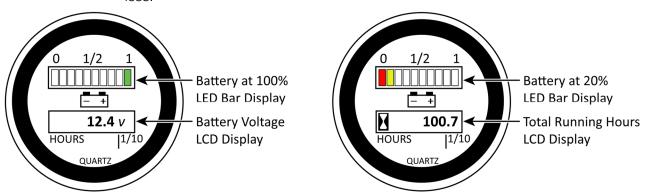


Figure not to scale. Partial cross section, components removed for clarity.

Checking the Battery Charge Level

The charge status of the Lift battery is displayed on the Battery Status Indicator, located near the bottom of the Lift Frame (facing the Steering Handle). As battery power is consumed, the LED gauge will move downwards to 0 in 10% increments. See **Charging the Lift Battery**.

CAUTION Do not allow the battery charge to drop **below** 20%, as this may affect the performance of the Lift; do not attempt to lift a load with a battery charge of 20% or less.

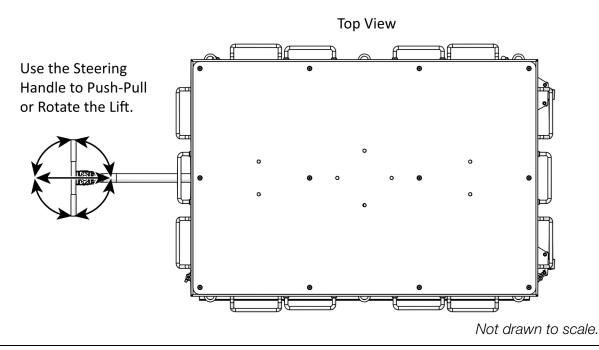


The battery status indicator LCD is capable of displaying the current battery voltage or the total running hours.

To switch between total running hours and battery voltage briefly press the **S** button on the back of the indicator. When displaying Battery Voltage, a **V** is displayed to the right of the value and when displaying Total Running Hours, an hourglass shape is displayed to the left of the value.

Using the Steering Handle

The Steering Handle is attached to the Lift's structure which rides on four Zero-Throw Caster assemblies. This caster design allows easy push-pull and rotation of the entire Lift with minimal force on the steering handle to move a given load. Refer to the figure below.

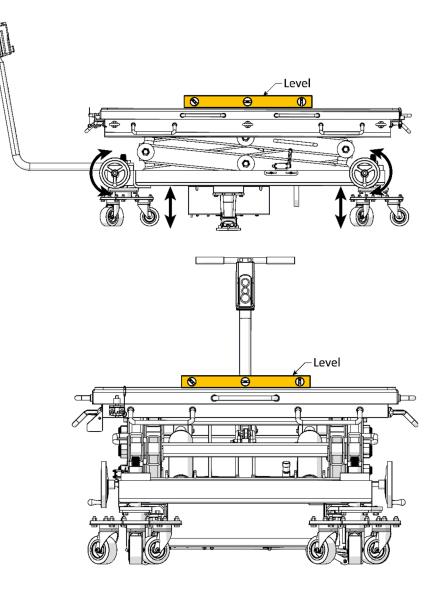


Leveling the Lift

The Lift may be leveled by adjusting the Lift up and down using the hand wheel to adjust the screw jack on each caster assembly.

To level the Lift:

- 1. Place a 4-foot level on the top deck along the long axis, then check the level along the long axis of the Lift.
- 2. Rotate the hand wheels on the screw jack(s) for the caster assembly that will correct the level until the top deck is level along the long axis.
- 3. Rotate the 4-foot Level 90° and place along the centerline of the short axis on the top deck.
- 4. Rotate the Hand Wheel on the screw jack for the caster assembly that will correct the out of level condition.
- 5. Repeat until the top deck of the Lift is level.



Not drawn to scale.

Using the Floor Lock

The Floor Lock will restrict the Lift's motion and provide additional support by engaging two rubber feet located in the center of both long sides.

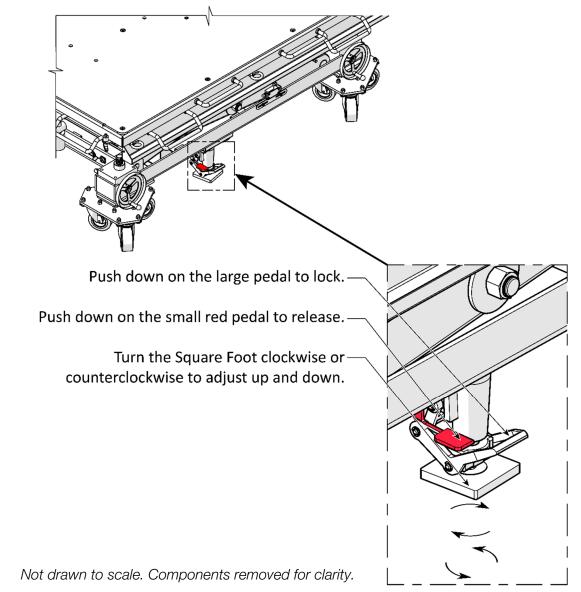
To engage the Floor Locks:

- 1. Move and orient the Lift as required for your application.
- 2. Use your foot to push down on the large pedal until the floor lock's rubber foot comes into contact with the floor.
- 3. Repeat the same process on the other side of the Lift.

IMPORTANT! The floor lock may be adjusted up and down by rotating the foot clockwise and counterclockwise.

To disengage the Floor Locks:

- 1. Press down on the small red pedal. The floor lock will return to its disengaged position.
- 2. Repeat step 1 on the other side of the Lift.



About Safety Locks

When the lift mechanism rests on a safety lock the load is held without hydraulic pressure. Gravity and mechanical forces operate to hold the load in position. The

MOBI-EVS incorporates several safety lock positions allowing the operator to rest the lifting mechanism on a safety lock at a convenient height. The MOBI-EVS provides four locking positions on the EV4000SL and five positions on the EV400SL. The safety lock is located in the middle of the scissor lift mechanism and consists of just a few components as detailed in the figure below.

The solenoid moves the safety catch into and out of a locking position. When the operator pushes the down button, the solenoid pulls the safety catch clear of the safety stops allowing the Lift's top deck to lower.

The solenoid CANNOT disengage the safety catch when the Lift is resting on the safety stop.

To disengage the safety catch when resting on a safety lock:

- 1. Raise the top deck just a few inches by pressing the Up Button.
- 2. Press the Down Button and the safety catch should clear the safety stop allowing the top deck to lower.

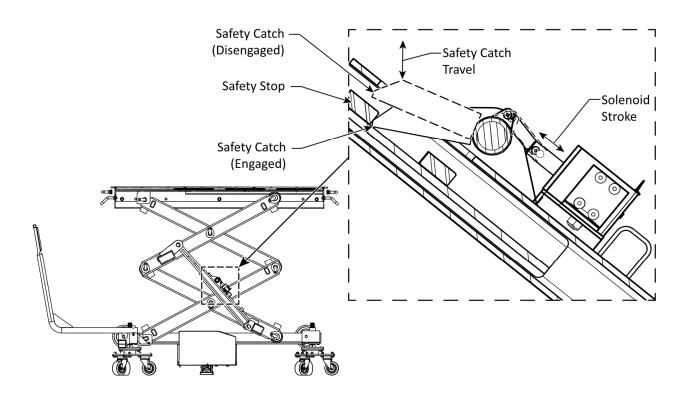


Figure not to scale. Partial cross section, components removed for clarity.

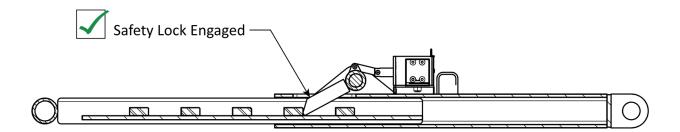
Always leave the Lift engaged on one of the safety lock positions or lowered to its minimum height. Although rare, it is possible for the hydraulic system to leak or become damaged, causing the top deck to slowly lower.

Learn to recognize the safety lock positions. Review the figures below to recognize when the top deck is locked and unlocked.

The safety lock is engaged when:

- 1. The safety catch is in contact with the side of a safety stop.
- 2. The Lift will no longer lower when pressing the **Dn** button on the pendant.

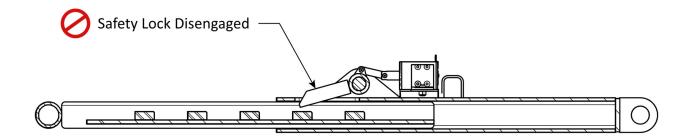
Hydraulic force is **not required** to hold the top deck up when the safety lock is engaged.



The safety lock is disengaged when:

- 1. The safety catch is no longer in contact with the side of a safety stop.
- 2. The Lift will lower when pressing the Down button on the pendant.

Hydraulic force *is required* to hold the top deck up when the safety lock is disengaged.



Figures not to scale. Cross section view. Components removed for clarity.

Always leave the Lift engaged on one of the safety lock positions or lowered to its minimum height. Although rare, it is possible for the hydraulic system to leak or become damaged, causing the top deck to slowly lower.

Positioning and Raising the Lift

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

To raise the Lift's Top Deck:

- 1. Check the items listed in **Lift Operation Safety**. If you find any issues, resolve them before using the Lift.
- 2. Verify the Lift Battery has a sufficient charge (>20%). If not, charge the Battery prior to lifting a load.
- 3. Determine the maximum Lift top deck height and adjust the limit switch, if required. See **Adjust the Limit Switch**.
- 4. Secure the load on the Lift using the eye bolts and a tie down strap(s).
- 5. Verify the top deck is fully lowered and the floor stops are disengaged.
- 6. Move the Lift by the pushing, pulling, or rotating the steering handle. Situate the Lift directly underneath the load.
- 7. Walk around the Lift and verify there are no obstructions or any other issues that will interfere with raising the Lift's top deck.
- 8. Engage and adjust the floor stops to ensure the Lift will not move while lifting or lowering.
- 9. Verify the top deck is level and stable. Adjust the Jack Screws on each corner to level the top deck, if required.
- **Always** verify the Lift is resting firmly on the floor stops and all four Caster assemblies **prior** to raising or lowering a load.
- 10. On the control pendant, rotate the **Stop Button** clockwise to provide power to the Lift.
- 11. On the control pendant, press and hold the **Up** button to raise the Lift's top deck.
- 12. Watch the top deck as it rises. If the Lift becomes unstable or moves unpredictably, release the **Up** button immediately and lower the top deck and load until it is in a safe condition.
- 13. When the top deck is at the desired height, release the **Up** button. The upward motion of the Lift's top deck may also be controlled by the limit switch.
- 14. Lower the Lift onto the nearest safety lock to leave the Lift in a safe condition.

Lowering the Lift

This section describes how to lower the Lift.

To lower the Lift:

1. Check the items listed in Lift Operation Safety.

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

- 2. If the Lift is resting on a safety lock, press the **Up** button for a few seconds. Pressing **Up** allows the solenoid to release the safety catch clear of the safety stop.
- 3. Press and hold the **Down** button to lower the Lift's top deck.
- 4. When the top deck is fully lowered, release the **Down** button.

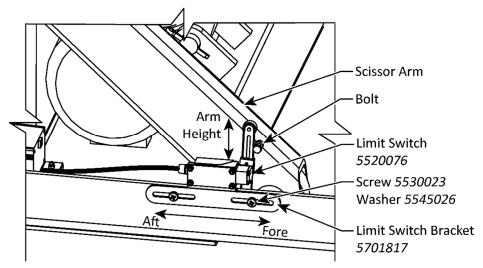
WARNING Do not move the Lift while the load is raised. Lower the load completely **before** moving or storing the load.

- 5. When the load is safely lowered, check the load's stability on the Lift to verify it is safe to transport.
- 6. Secure the load using straps anchored on the Lift's eye bolts.
- 7. Release both floor stops.
- 8. Carefully move the Lift with its load out from under the Vehicle by pushing, pulling, or rotating the steering handle as required.

Adjust the Limit Switch

The maximum height of the Lift's top deck is mechanically constrained by the fully extended length of the Lift's hydraulic cylinders. The limit switch provides the ability to set a maximum lifting height which is lower than the Lift's mechanical maximum. The operator may set a maximum height that can prevent the Lift from colliding with obstructions and damaging the Lift or the Vehicle under repair.

The limit switch incorporates two adjustments. The first controls the switch's horizontal position (fore and aft) while the second controls the height of the limit switch arm. See figure below.



To adjust the Limit Switch:

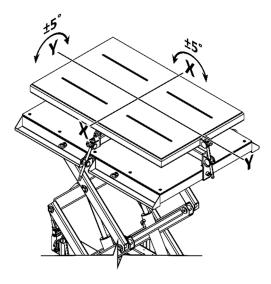
- 1. Use a tape measure to determine the desired limit height to avoid obstructions.
- 2. Move and arrange the Lift to ensure that it will not strike any obstructions when raised.
- 3. Apply power to the Lift by rotating the **Stop Button** on the pendant clockwise.
- 4. Raise the Lift to the desired maximum height. Confirm with a tape measure Do **not** remove power from the Lift.
- 5. Loosen the two Screws (5530023) that allow the Switch to move fore and aft along the Lift.
- 6. Slide the Switch along its adjustment slots until the switch arm contacts the bolt on the scissor Arm, and the Lift's top deck will no longer raise when you push the **Up** button on the pendant.
- 7. Tighten the two machine screws to secure the limit switch in position.
- 8. If required, adjust the length of the limit switch arm to ensure contact with the bolt extending from the scissor arm.
- 9. Lower and raise the Lift while observing the height at which it stops. Repeat steps 4 through 9, if required until the Lift's top deck stops ascending at the desired height.

Accessories

The MOBI-EVS Lifts feature sixteen recessed anchoring locations intended to accommodate a variety of accessories, modular fixtures, and adapters.

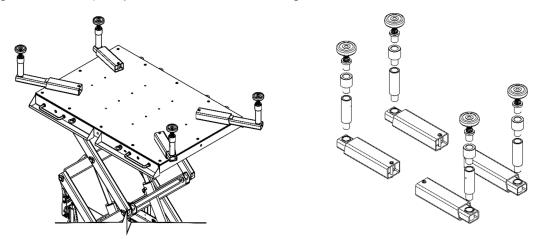
Tilt Deck

The optional Tilt Deck (5216043) features two independent adjusting screws allowing $\pm 5^{\circ}$ rotation of the deck surface along the X and Y axes. Adjusting screws feature hex bolts that can be operated manually with standard or power-driven wrenches. The Tilt Deck allows precise alignment of engine and drivetrain assemblies, fuel tanks, electric vehicle batteries and more. 1,650 lbs. / 748 kg Max. capacity. See figure below.



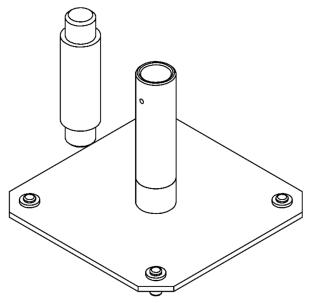
Lift Arm Kit

The optional Lift Arm Kit (5210272) is designed to attach easily to the Lift Deck in any of the 16 recessed anchoring locations on the top deck, providing a multitude of support options. The arm kit includes four telescoping lift arms, four adjustable height contact pads and four stackable adapters that provide configurable support for large, heavy, and awkward vehicle components. 600 lbs. / 272 kg maximum capacity each arm. Set of 4, see figure below.



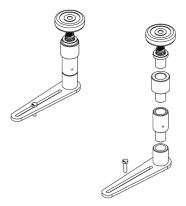
Transjack Deck Mount Kit

This Transjack Deck Mount Plate Kit (5216120) features a center support pin that adapts to almost all late-model competitive transmission jack heads, drivetrain adapters and fuel tank supports on the market. See figure below.



Transjack Receiver Plate Kit

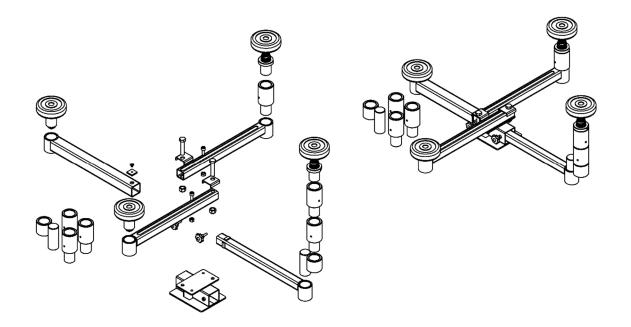
The Transjack Receiver Plate Kit (5210305) consists of four adjustable Accu-Point[™] support fixtures creating a dynamic universal fitment of almost any vehicle. This assembly features independently adjustable and indexing locking arms that adapt to almost any late-model transmission, drivetrain, or vehicle sub-frame shape. The kit comes complete with four adjustable support fixtures, four adjustable height Contact Pads and four stackable Adapters. 600 lbs. / 272 kg capacity each fixture.



Multi-Point Support Assembly

The Multi-Point Adapter (5216205) safely supports large, heavy, and awkward vehicle components such as axles, fuel tanks, transfer cases, transmissions, bumpers, etc. Features adjustable telescoping arms and adjustable height contact pads for multi-configurable support. 800 lbs. capacity. IMPORTANT NOTE: Requires Deck Mount Kit (5216120).

Important! The Multi-Point Support Assembly also requires Deck Mount Kit (5216120).



Troubleshooting

This section describes common troubleshooting issues for the MOBI-EVS.

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

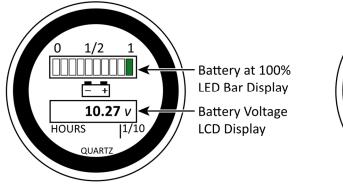
Important: All repair work *must* be completed and inspected by qualified personnel.

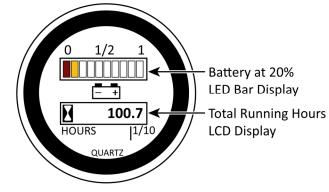
General Troubleshooting

| Issue | Action to Take |
|---|--|
| The Motor does not run. | Check the Battery and the Fuses. Verify the limit switch is not engaged. Verify the limit switch is not damaged or inoperative. |
| Top Deck does not go up or down. | Verify the Lift is not overloaded. Verify there is sufficient Battery charge. Verify there is sufficient hydraulic fluid in the reservoir. Verify the limit switch is not damaged; replace it if required. |
| Top Deck does not raise to full height. | Verify there is sufficient hydraulic fluid in the reservoir. Verify the limit switch is not engaged or damaged. |
| Top Deck is slowly lowering on its own. | Replace the lowering valve. Clean the lowering valve. Check for low hydraulic fluid. Check for hydraulic leaks. |
| Battery does not charge. | Replace the battery. Replace the battery charger. Check for damaged wiring. Check for damaged connectors. |
| 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. |

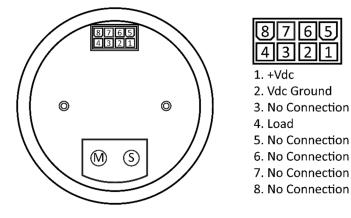
Electrical and Charging System Troubleshooting

| Issue | Action to Take | | |
|---|--|--|--|
| Battery Status Indicator gives a Blank LED and LCD display. | Look for damaged wiring. Repair/Replace. Incorrect Connector wiring. Repair/Replace Check for damaged connectors. | | |
| Timer Hourglass icon does not flash after opening function. | Look for damaged wiring. Verify the connector is wired correctly. | | |
| No change on Voltage LED Bar Display | Battery Parameters incorrectly programmed into Indicator. 200-second delay not completed. | | |
| Unclear or color changed on LCD display. | Exposure to excessive heat or cold. Return the display to normal operating temperatures. | | |
| Battery Status Indicator only displays Total Running Hours. | Briefly push the S button on the back of the Battery Status Indicator. The indicator should display battery voltage with a V after the value. If the Display continues to only display hours contact BendPak Technical Service. | | |





Connector Pin Assignments



If you continue to have problems with your Lift, take the Lift out of service, then contact your dealer, visit Visit **bendpak.com/support**, by email at **support@bendpak.com**, or by phone at **(800) 253-2363**, option 7 then 4.

Online chat is also available at **www.bendpak.com** click the chat icon.

Maintenance

Unless stated otherwise, all maintenance may be performed by the owner/employer and does not require trained Lift Service Personnel.

DANGER Before performing any maintenance, verify the Lift is completely disconnected from power and cannot be re-energized until all maintenance is complete.

▲ DANGER Crushing hazard and pinch points. Do not place any part of your body between the top deck and any moving component(s) of the Lift, unless the Lift's motion is locked by a jack stand, forklift or equal device that will prevent the Lift's movement.

To maintain your Lift:

- Daily: Keep the Lift clean. Wipe up any liquid spills, clean and remove 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. Use only factory-approved replacement parts.
- Weekly: Check all controls to verify they are functioning normally.
- Weekly: Check all labels on the unit. Replace them if they are illegible or missing.
- **Monthly**: Lubricate all pivot points and axles. We recommend using White Lithium Grease or similar.
- Monthly: Check the hydraulic fluid levels. Refill if low. Check the cleanliness of the Oil Filter.
- **Monthly**: Clean the battery. Dirt can trap conductive material increasing the rate of unintended discharge and shortening the life of the battery.
- **Monthly**: Operate the Lift up and down several times to maintain the elasticity of the cylinder's seals.
- **Every Three Months**: Check all electrical components for proper operation.

▲ DANGER You *must* wear OSHA-approved (publication 3151) Personal Protective Equipment at all times when servicing the Battery: eye protection, leather gloves, steel-toed boots are *mandatory*.

- Every Three Months: Remove corrosion from the battery terminals. See Cleaning the Battery Terminals.
- After the first 3 months of operation: Remove and replace the hydraulic fluid. Change the hydraulic fluid every 24 months thereafter. Dispose of used hydraulic fluid according to national and local environmental regulations. Contaminated hydraulic fluid will shorten the life of the cylinder seals.
- **WARNING** Do not operate your Lift if you find issues; instead, take the Lift out of service, then contact BendPak Technical Support. Visit **bendpak.com/support**, by email at **support@bendpak.com**, or by phone at **(800) 253-2363**, option 7 then 4.

Online chat is also available at **www.bendpak.com** click the chat icon.



Filling with Hydraulic Fluid

The hydraulic fluid reservoir on the Power Unit must be filled with approved fluid. Use only new, clean Anti-Foaming Hydraulic Fluid. Approved fluids are Dexron III, Dexron VI, Mercon V, Mercon LV, Shell Tellus S4 / S3 / S2, or equivalent.

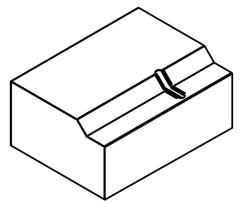
CAUTION Keep hydraulic fluid clean. Contaminated hydraulic fluid can shorten the life of pump components and the hydraulic cylinder seals.

Tools Required:

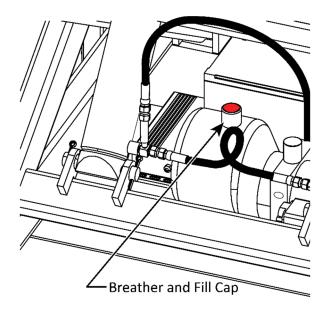
- Funnel with 60-micron filter. Must fit Tank Fill Tube 8mm ID x 10mm OD.
- Rags for Clean-up
- Oil Absorbent for clean-up
- New clean hydraulic fluid

To Fill the Lift with Hydraulic Fluid:

- 1. The Lift should be in a raised position and engaged on a safety lock.
- 2. Press the Stop button.
- ▲ DANGER Crushing hazard and pinch points. Do not place any part of your body between the top deck and any moving part of the Lift unless the Lift's motion is locked by a Jack Stand or equal device that will prevent movement.
- **WARNING** Hydraulic Fluid under pressure is dangerous. You must wear OSHA-approved (publication 3151) Personal Protective Equipment at all times when in contact with hydraulic fluid: eye protection, leather gloves, and steel-toed boots are mandatory.
- 3. Retrieve the fill tube (5570284) 10 mm x 550 mm.
- 4. Remove the Power Unit Cover (5210386).



5. Find the hydraulic fluid reservoir, then clean the Breather Cap and surrounding area before removing the Cap. See the figure below.



- 6. Clean the fill tube. Wipe the outside with a rag. If the inside of the tube is contaminated with dirt or debris, fill with clean hydraulic fluid then agitate and pour out to remove contaminates. Dispose of contaminated hydraulic fluid as hazardous waste.
- 7. Insert the fill tube through the top deck as shown in the figure to the right.
- 8. Lower the top deck until the fill tube can be inserted into the Power Unit reservoir.
- 9. Remove power from the Lift by pressing the Stop button.
- 10. Feed the fill tube through the top deck down into the reservoir.
- 11. Use a clean funnel that incorporates a minimum 60-micron screen for filtration. Attach the funnel to the fill tube. Observing the reservoir fill pipe, pour in only enough Hydraulic Oil to bring the oil up to just below the reservoir fill pipe. The Lift requires approximately **1 gallon / 3.8 liters** of hydraulic fluid.
- 12. Remove the funnel and fill tube.
- 13. Clean, then replace the Breather Cap on the reservoir.
- 14. Release the Stop button to apply power to the Lift.
- 15. Raise the top deck and then lower to rest on a safety lock.
- 16. Clean any spilled hydraulic fluid.
- 17. Raise and lower the top deck several times to bleed any air out of the system.
- 18. Recheck the fluid level after initial use.

Bleeding the Hydraulic System

Bleeding the hydraulic system is **not required**. The system will Self-Bleed. Raise and lower the top deck several times with no load to bleed the system.

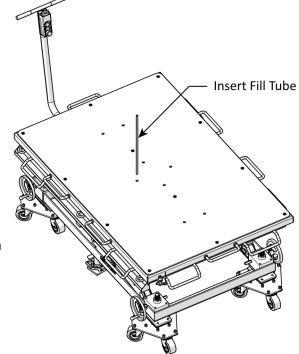
Disposing of Used Hydraulic Fluid

Used hydraulic fluid cannot be disposed of by dropping it into the trash or dumping it into the street. It contains toxic ingredients that are harmful to the environment.

Instead, you must either recycle it or drop it off at a hazardous waste collection facility.

Rags and/or granular absorbents that have absorbed hydraulic fluid should be treated as hazardous waste and be disposed of at a hazardous waste collection facility.

If you are unable to find an appropriate facility, the website **earth911.com** has resources that may be of help.



Cleaning the Battery Terminals

Dirt and corrosion can trap conductive materials and eventually cause a Battery to lose its charge.

WARNING Always wear complete eye and hand protective equipment; avoid

touching your eyes while working near a Battery. Be careful to keep corrosion and debris from coming into contact with your eyes.

Tools required:

- Old toothbrushBaking Soda
- Rags
- Wrench to remove the battery cables

Water

- Jack Stands or Sawhorses
- 1. Raise the Lift with no load and rest it on a safety lock. Use jack stands or sawhorses to ensure the top deck cannot lower while performing service.
- 2. Remove the cover (5210386).
- 3. Inspect the battery. If the battery case is cracked or swollen, **do not clean the Battery**, **replace it!**
- If the battery is in good condition, use a wrench to remove the battery cables from the terminals. Exercise care not to short the wrench against any metal part of the Lift and a battery terminal. (Remove the negative cable first. When reinstalling, install the negative cable last.)
- 5. Create a solution of clean water and baking soda, one tablespoon of baking soda into one cup of clean water. Stir to mix the solution.
- 6. Wet the toothbrush in the baking soda solution, then scrub the Terminals and the Connectors with the brush and rags to remove corrosion and dirt.
- 7. Wipe the terminals, connectors, and battery until clean and dry using cloth rags.
- 8. Connect the red cable to the positive (+) battery terminal and the black cable to the negative (-) battery terminal.
- 9. Remove the jack stands or sawhorses and discard the toothbrush.

Lead Acid Battery Safety

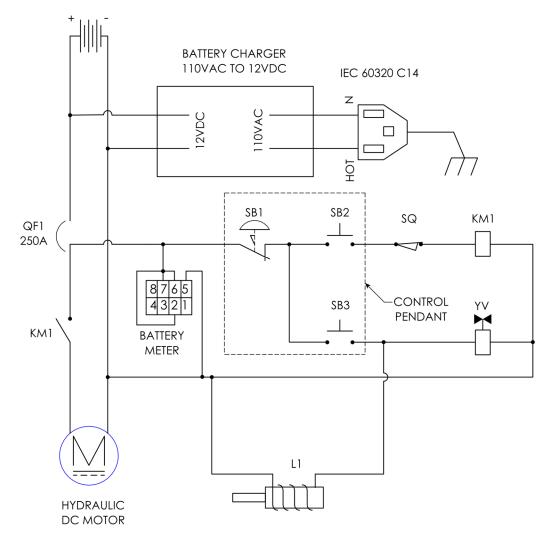
Always wear complete eye and hand protective equipment; avoid touching your eyes while working near a Battery. If Battery acid contacts your skin or clothing, wash immediately with soap and water. If acid enters an eye, immediately rinse the eye with running cold water for at least 10 minutes and get medical attention as soon as possible.
WARNING Do not contact the battery terminals or cable clamps with tools that may draw sparks.
WARNING Avoid battery acid. Neutralize battery acid spills with baking soda and water.
Do not expose the battery or charger to rain.

Keep the following in mind for the safe handling of lead-acid batteries and battery chargers:

- 1. Verify local voltage and frequency is the same as the input specification of the Lift charger 115 VAC at 2 Amps, 47 to 63 Hz.
- 2. An extension cord should not be used unless absolutely necessary; **using an improper extension cord could result in a risk of fire and electric shock**. If an extension cord must be used, make sure the pins on the extension cord plug have the same number, size, wire gauge, and shape as those of the AC power cord on the charger.
- 3. When handling power cords, always pull by the plug rather than by the cord; this reduces the risk of damage to both plug and cord, and it will also minimize the likelihood of electric shock resulting from that damage.
- 4. Carefully examine power cords. The normal wear and tear on extension and flexible cords can loosen or expose wires, creating hazardous conditions and increase your risk of contacting electrical current.
- 5. Verify all electrical power cords are located so that they cannot be stepped on, tripped over, or otherwise subject to damage or stress.
- 6. Do not operate the battery charger in a closed-in area or restrict ventilation in any way; **keep the battery charger away from any sources of ignition**.
- 7. Do not operate the battery charger with damaged AC power cords or plugs or DC output leads, replace worn or damaged components immediately.
- 8. Do not set the battery charger directly above the battery.
- 9. Batteries store electric charge and can give you a shock if not handled properly; make sure you are not wearing any jewelry such as rings, bracelets, necklaces, and watches when working with a lead-acid battery.
- 10. Keep lead-acid battery vent caps securely in place.
- 11. Do not expose the battery charger or any of its electrical connections to rain, snow, or extremely high, condensing humidity.
- 12. Never attempt to charge a visibly damaged or frozen battery, or if the battery case is bulging or leaking.

Wiring Diagram

12VDC BATTERY



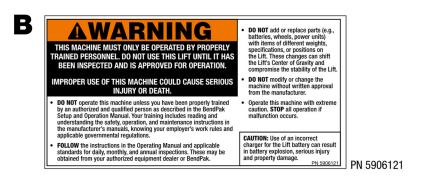
| SYMBOL | DESCRIPTION |
|--------|---|
| QF1 | AUTOMATIC RESET BREAKER, 250A |
| KM1 | START CONTACTOR |
| SB1 | SWITCH, EMERGENCY STOP |
| SB2 | SWITCH, UP |
| SB3 | switch, down |
| SQ | LIMIT SWITCH |
| YV | ELECTROMAGNETIC COIL |
| L1 | SAFETY SOLENOID |
| BP | BendPak. |
| | 1645 LEMONWOOD DR. SANTA PAULA, CA 93060 |

Labels

A

BendPak.

PN 5905204





ONLY FOR EV2400SL

PN 5906120



ONLY FOR EV4000SL

PN 5905871



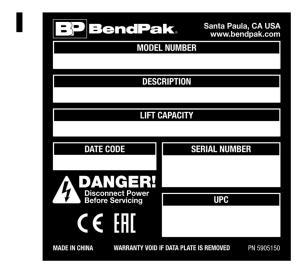
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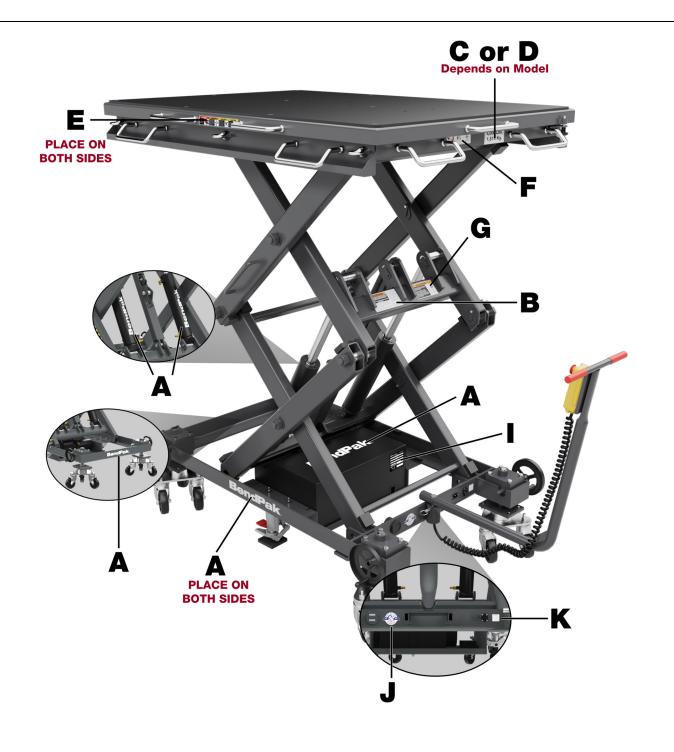
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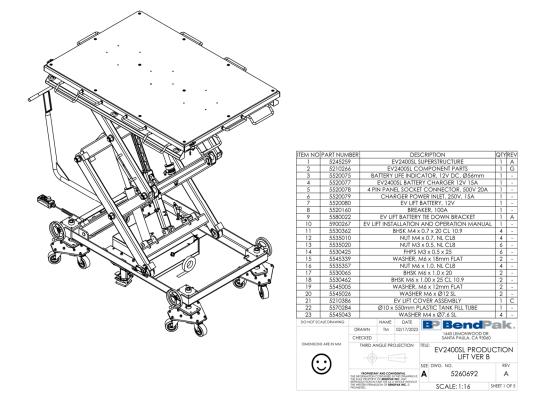
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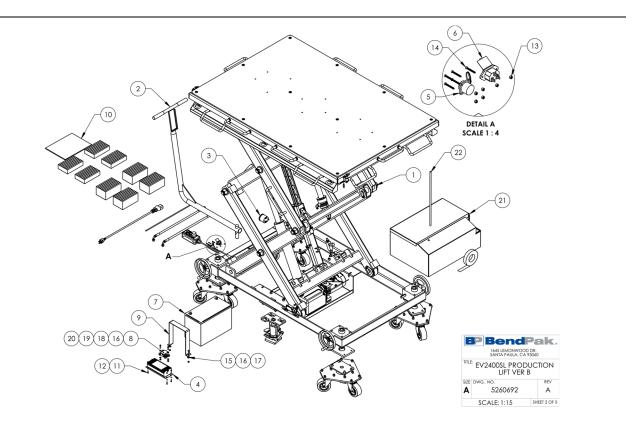


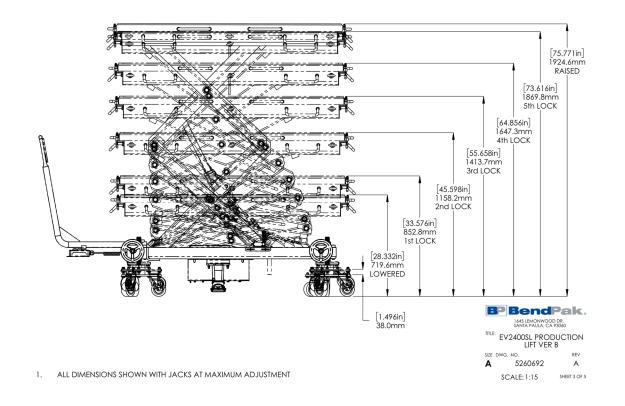
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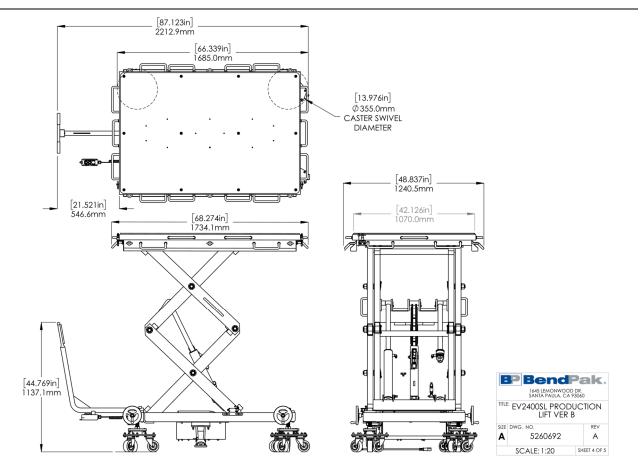


Parts Drawings

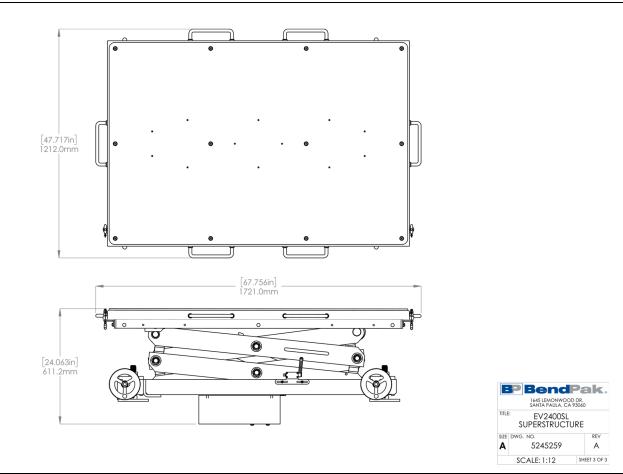


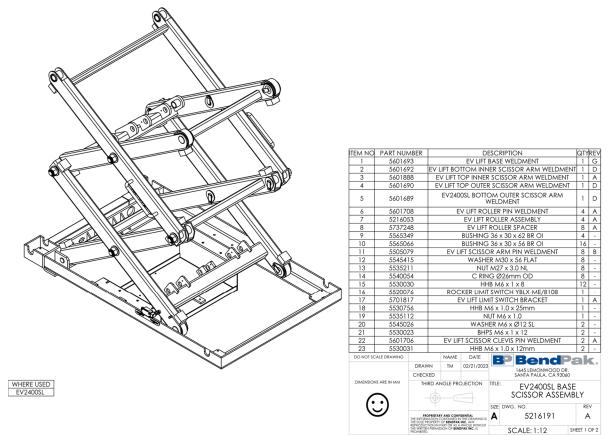




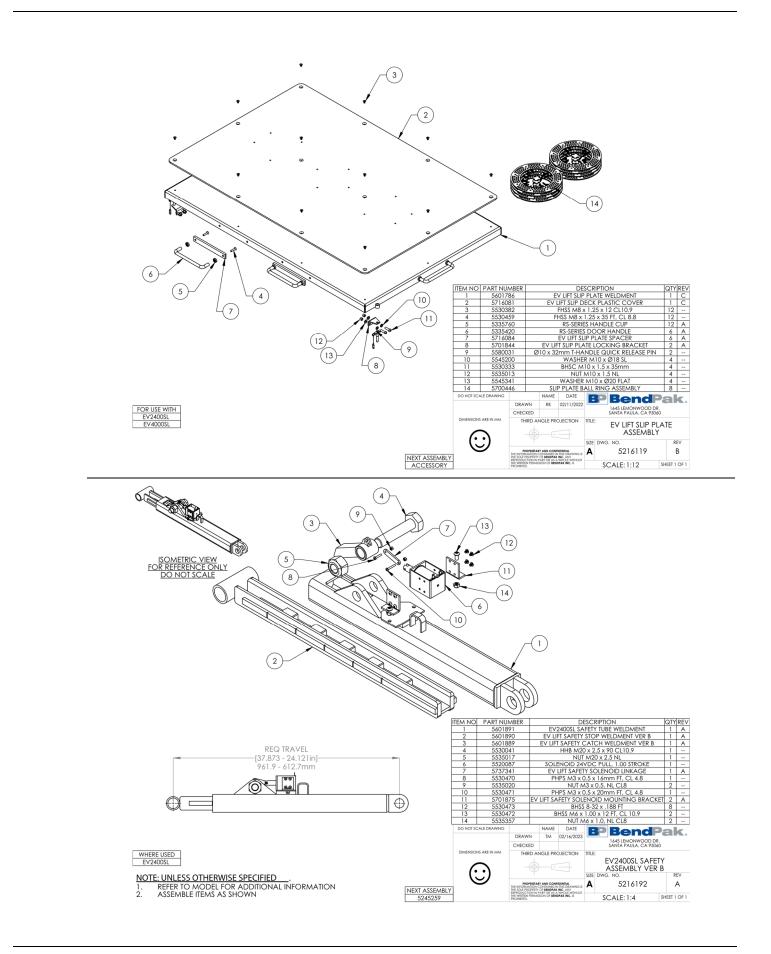


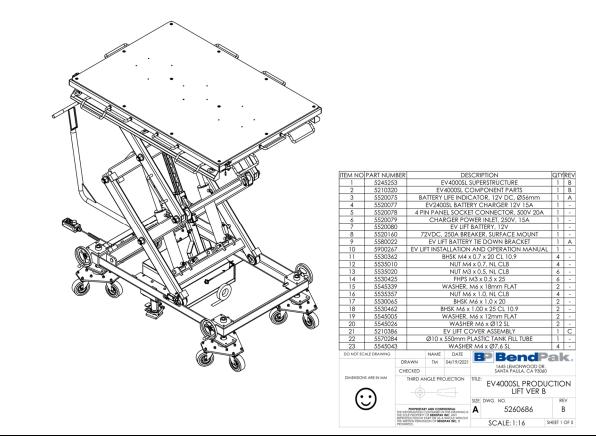
| <image/> | TEM NO PART NO DESCRIPTION QTY REV 1 S216170 EV2400SL BASE SCISSOR ASSEMBLY 1 A 2 S601707 EV1IFT CP CYLINDER CLEVIS PIN WELDMENT 2 A 3 S601707 EV1IFT TOP CYLINDER CLEVIS PIN WELDMENT 3 A 4 S60188 EV1IFT TOP DECK WELDMENT 1 H 5 S216119 EV1IFT TOP DECK WELDMENT 1 H 6 S601085 EV2400SL CYLINDER PIN WELDMENT 2 A 7 S502055 CYLINDER ASSEMBLY Ø2.5 x 14.18 2 A 8 S530031 FIG EL9.404 JIC: 404 OPR x 04 COMP - 10 S550103 FIG EL9.404 JIC: 404 OPR x 04 COMP - 11 S550038 FIG TEI: -04 JIC: x -04 NPT x 04 FNPT - 12 S5502147 FIG NPL -04 JIC: x -04 NPT x 04 FNPT - 13 S550147 FIG NPL -04 JIC: x -04 NPT - 14 REF EV1IFT POWER UNIT 1 - 15 S570755 |
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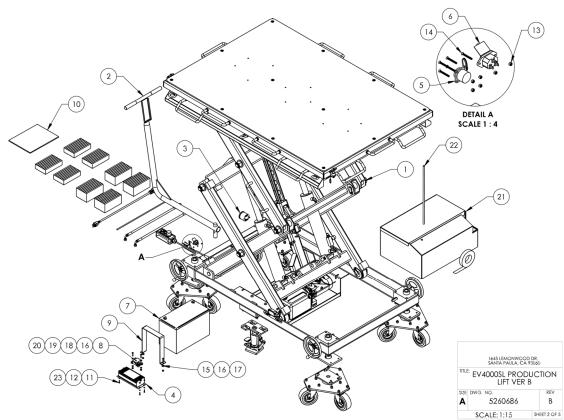


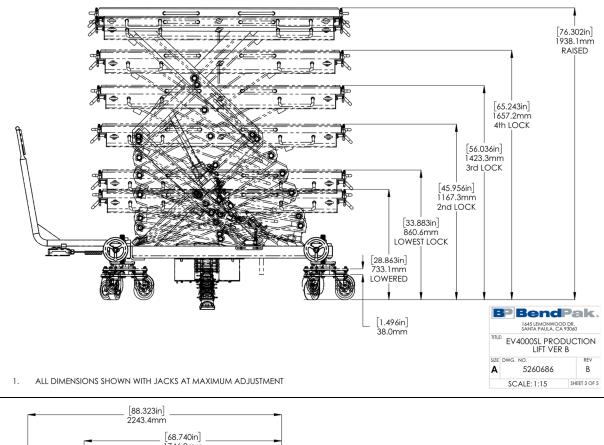


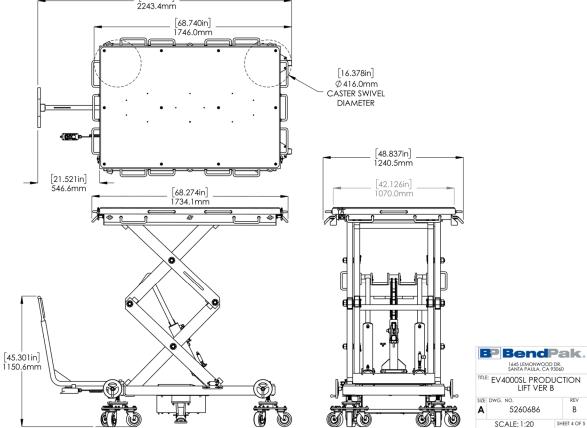
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|------------------------|------------------------------------|--|--------|-------------|
| | ITEM PART NO NUMBER | DESCRIPTION | QTY | REV |
| | 1 5216177 2 5601706 | EV4000SL BASE SCISSOR ASSEMBLY EV LIFT SCISSOR CLEVIS PIN WELDMENT | 1 2 | B |
| | 3 5601707 | EV LIFT TOP CYLINDER CLEVIS PIN WELDMENT | 2 | A |
| | 4 5601688 5 5216119 | EV LIFT TOP DECK WELDMENT EV LIFT SLIP PLATE ASSEMBLY | 1 | HB |
| | 6 5620751 | EV4000SL CYLINDER PIN WELDMENT | 2 | A |
| | 7 5502054 8 5530031 | CYLINDER ASSEMBLY Ø3.0 x 14.18 HHB M6 x 1.0 x 12mm | 2 9 | A - |
| | 9 5550395 | FTG TEE -04 COMP x -04 COMP x -04 COMP | 1 | - |
| | 10 5550103 11 5550083 | FTG ELB -04 JIC -06 ORB FTG ELB -04 COMP x -04 NPT | 1 2 | - |
| | 12 5550222 13 5550147 | FTG TEE -04 JIC x -04 NPT x-04 F NPT | 1 | - |
| | 14 5585324 | FTG NPL -04 JIC x -04 NPT EV LIFT POWER UNIT | 1 | B |
| | 15 5570286 16 5570285 | HYDRAULIC HOSE ASSEMBLY Ø6.4 x 580mm SB HYDRAULIC HOSE ASSEMBLY Ø6.4 x 415mm DB | 1 | A |
| | 17 5570795 | 1/4" POLY-FLO TUBING | 1230mm | ۱ - |
| | 18 5715046 PG 19 5530333 | OWER UNIT VIBRATION DAMPENER 132mm x 32mm BHSC M10 x 1.5 x 35mm | 1 2 | A - |
| | 20 5210388 21 5601883 | EV4000SL SAFETY ASSEMBLY EV4000SL SAFETY CLEVIS PIN WELDMENT | 1 2 | A |
| | 22 5601747 | EV2400SL SAFETY CLEVIS PIN WELDMENT | 1 | A |
| | 23 5216090 24 5400940 | EV LIFT CASTER LEVELLING ASSEMBLY SHCS M10 x 1.5 x 20 FT, CL 12.9 | 4 | D - |
| | 25 5545200 26 5550212 | WASHER M10 x Ø18 SL FTG NPL -06 NPT x -04 NPT | 18 | - |
| | 27 5590115 | FLOW CONTROL VALVE | 1 | - |
| WHERE USED EV4000SL | 28 5550100 DO NOT SCALE DRAWING | FTG NPL -04 JIC x -06 NPT | 1 | • |
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Mobi-EVS™ Lifting System

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BP BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060 EV4000SL SUPERSTRUCTURE

REV B

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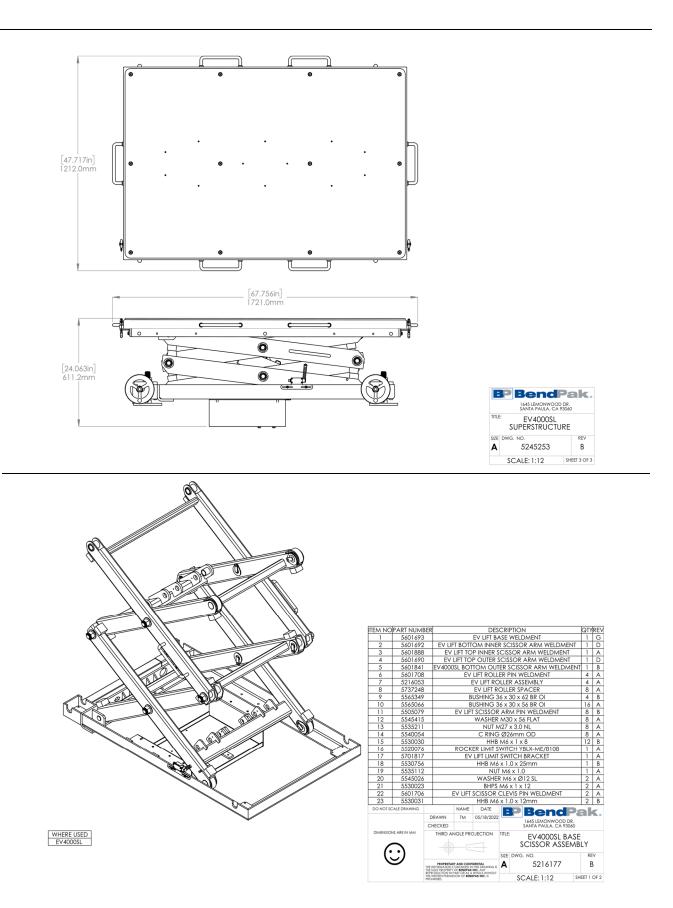
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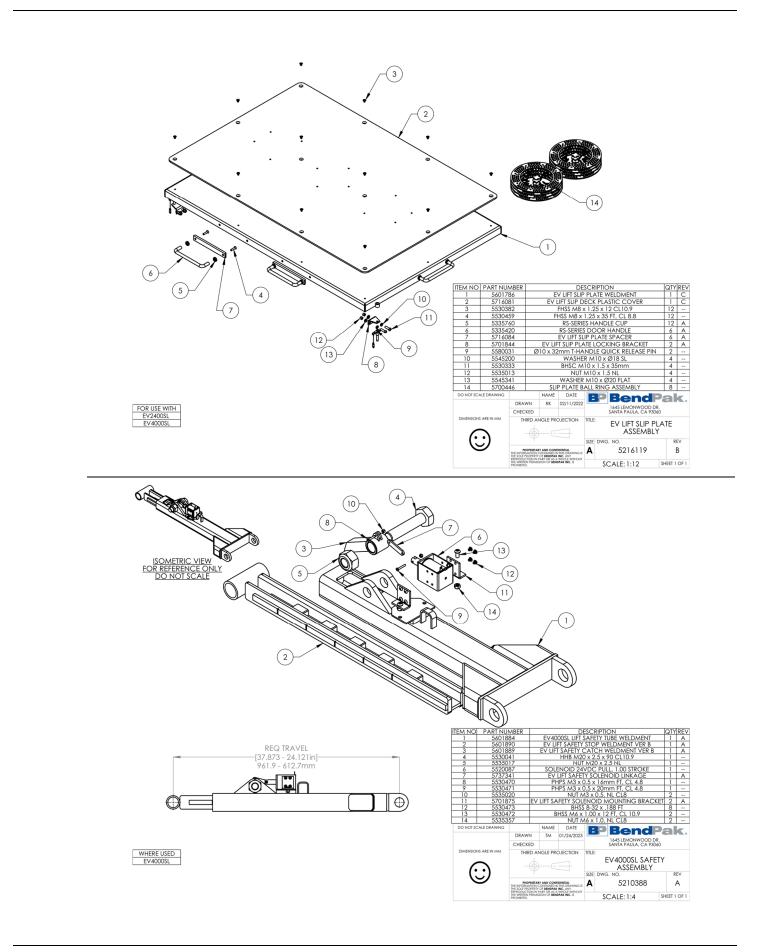
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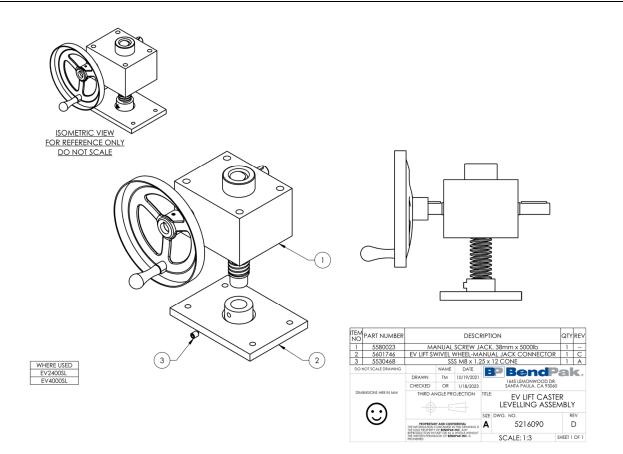
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