

## LM-2800MRP Mid Rise Portable Scissor Lift Setup and Operation Manual

Manual Revision A1 — August 2023

Model: • LM-2800MRP



## DANGER

**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 serious injury or death. Make sure all other operators also read this manual. Keep the manual near the product for future reference. *By proceeding with setup and operation, you agree that you fully understand the contents of this manual and assume full responsibility for product use.***

# LiftMotive

## The LiftMotive Story

LiftMotive is a young company which continues to pursue and elevate the standards of excellence through their strategic partnerships with automotive care professionals throughout Europe. As a direct European importer, LiftMotive is uniquely positioned to provide customers with the lowest delivered pricing and unparalleled after sales support.

## How it started

Imagine a hobby that got out of hand combined with a dream, that makes our business. In 2018, we launched our own brand, LiftMotive. Our idea and goal were to develop and produce high quality products at a reasonable price range. so far our company has made quite some developments and growth.

## Our mission

LiftMotive is the distributor of car lifts and automotive service equipment, because we offer the highest quality products, best service after the sale and most impressive delivery speeds, all while holding fast to the strongest company culture in the industry.

## Our values

Our ongoing goal is to engage candidly and professionally with distributors and individuals interested in our products. We will use every means available to present our wares in the most convenient way possible.

## Our vision

Continue growing a business in providing and distributing products that better people's lives, now and for future generations.

# LiftMotive



# LiftMotive



**Manual.** LM-2800MRP Mid-Rise Scissor Lift, *Installation and Operation Manual*, Manual Part Number 420231, Manual Revision F2, Released April 2021.

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

**Warranty.** The LiftMotive warranty is more than a commitment to you: it is also a commitment to the value of your new product. Contact your nearest LiftMotive dealer or visit [www.liftmotive.com](http://www.liftmotive.com) 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.** In order to ensure operator safety and maintain your product properly, it is the responsibility of the product owner to read and follow these instructions:

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


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

Model: \_\_\_\_\_

Serial: \_\_\_\_\_

Date of Manufacture: \_\_\_\_\_

Model No	LM-2800MRP
Description	Mid Rise Portable Car Lift
Lifting Capacity	2800 KG / 6100 LBS
Power Supply	220V AC / 50HZ-1 Phase
Weight	400 KG / 880 LBS
Date of Mfg	
Serial Number	

 **DISCONNECT POWER BEFORE SERVICING**

**LiftMotive**  
www.liftmotive.com  
**CE**

PLEASE READ THE ENTIRE CONTENTS OF THE MANUAL PRIOR TO INSTALLATION AND OPERATION

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## Introduction

This manual describes the LM-2800MRP, which is a mid-rise, frame-engaging, scissor Lift that is portable and comes with a small footprint designed for narrower bays and low-ceiling garages.

The LM-2800MRP can raise Vehicles up to 2,800 kg.

This manual is mandatory reading for all LM-2800MRP users, including anyone who sets up, operates, maintains, or repairs them.

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

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

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

Technical support and service is available from your dealer, on the Web at **Liftmotive.com**, by email at **info@liftmotive.com**, or by phone at **+31 627365781**.

You may also contact LiftMotive for parts replacement information (please have the model and serial 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. 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

- The product is a mid-rise scissor Lift. Use it only for its intended purpose. Do not make any modifications to the product.
- The product should only be operated by authorized personnel.
- You **must** wear safety approved personal protective equipment at all times when installing, using, maintaining, or repairing the Lift: leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection are **mandatory**.
- Keep loads centered and balanced on the Lift.
- **Never** exceed the rated capacity of the Lift.
- 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 dealer, email [info@liftmotive.com](mailto:info@liftmotive.com), visit [liftmotive.com](http://liftmotive.com), or call **+31 627365781**
- Make a thorough inspection at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.

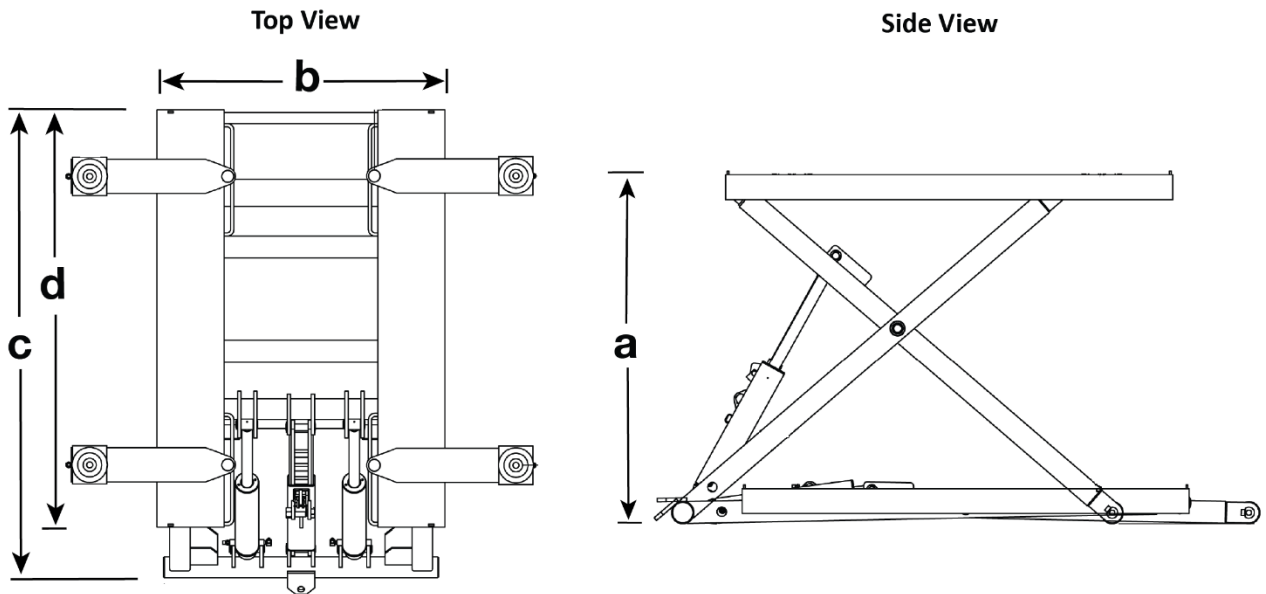
# Components

LM-2800MRP components include:

- **(1) Scissor Structure.** Holds the Lift together. Pivots in the middle. The two scissor pieces move together to raise the Lift, move apart to lower it.
- **(2) Power Unit.** Provides Hydraulic Fluid to the Hydraulic Cylinders, which they use to raise the Scissor Structure. Connects to an external power source.
- **(3) Platform.** Located on the top of the Scissor Structure. Holds the Arms and the Lift Pads.
- **(4) Hydraulic Cylinders.** Move the Scissor Structure and Platform up to raise a Vehicle, move them down to lower a Vehicle.
- **(5) Short Hydraulic Hose.** Connects the two Hydraulic Cylinders on the Lift.
- **(6) Safety Locks.** Hold the Platform in place, once they are engaged. The LM-2800MRP has three Safety Lock positions, which lets you select the right Vehicle height for your needs.
- **(7) Latch.** Located at the Base of the Lift, used for moving the Lift.
- **(8) Lift Arm.** Attaches to the inside channels of the Platform, used for holding the Lift Pads.
- **(9) Lift Pads.** Black, rubber Pads that make contact with the Lifting Points on the underside of the Vehicle being raised; do ***not*** raise a Vehicle on the Platform. The Lift comes with four Short Pads and four Tall Pads/Adapters/Bases. Using the Lift Pads is ***required***.
- **(10) Portable Stand.** Holds the Power Unit, has two mounting holes to attach the Power Unit.



# Specifications



Model	LM-2800MRP
Lifting capacity	2,800 kg
<b>a</b> Lifting Height (no Pads)*	1,330 mm
<b>b</b> Overall Width	1,000 mm
<b>c</b> Overall Length	2,630 mm
<b>d</b> Frame Length	1,800 mm
Lowered Height	110 mm
Raising/Lowering Time*	45 seconds
Motor	220 VAC, 50 Hz, 1 Ph
gross weight	480kg
Noise	≤ 70 db

\* Distance is from ground to top of Platform; does **not** include height of Arms or Pads.

\*\* Lowering is much slower with no Vehicle on the Lift.

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

# Installation Checklist


Following are the steps needed to install an LM-2800MRP Lift. Perform them in the order shown.

- ☐ 1. Review the installation Safety Rules.
- ☐ 2. Make sure you have the necessary Tools.
- ☐ 3. Select the Installation Site.
- ☐ 4. Planning for Electrical Work.
- ☐ 5. Check clearances.
- ☐ 6. Unloading and unpacking.
- ☐ 7. Assemble the Portable Stand.
- ☐ 8. Attach the Power Unit to the Portable Stand.
- ☐ 9. Set up the Tow Cart.
- ☐ 10. About Hydraulic Fluid Contamination.
- ☐ 11. About Thread Sealants.
- ☐ 12. Connect the Hydraulic Hoses.
- ☐ 13. Install the Lift Arms.
- ☐ 14. Connect the Power Unit.
- ☐ 15. Install a Thermal Disconnect Switch (Electrician ***required***).
- ☐ 16. Fill the Hydraulic Fluid Reservoir.
- ☐ 17. Test the Lift.
- ☐ 18. Review the Final Checklist.




# Installation

This section describes how to install an LM-2800MRP. Perform the steps in the order listed.


 **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 [liftmotive.com](https://liftmotive.com) or call **+31 627365781**

## Safety Rules

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

 **WARNING** Do not install this equipment unless you have automotive Lift installation training. Always use proper tools, such as a Forklift or Shop Crane, to move 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 equipment. Stay clear of moving parts.

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

## Tools

You may need some or all of the following tools:

- Hammer, mallet, crowbar, or pry bar
- Open-end wrench set
- Socket and ratchet set
- Medium crescent wrench
- Medium flat screwdriver
- Tape measure
- Fork Lift or Shop Crane

## Select a Site

The LM-2800MRP is portable, so you may be moving it and using it at a variety of locations. Keep the following in mind when selecting a location for your Lift:

- **Clearance.** You must have adequate space on all sides, plus enough space above for the Vehicles you will be raising. See [Clearance Around the Lift](#) for more information.
- **Check for overhead obstructions.** Check for overhead obstructions such as building supports, heaters, electrical lines, low ceilings, hanging lights, and so on. ***You do not want the Vehicles on the Lift hitting obstructions.***
- **Operator.** The operator ***must*** have a full, unobstructed view of the Lift when raising and lowering Vehicles.
- **Level Floor.** Only install the Lift on a dry, flat, and stable floor; do not install the Lift on dirt or an uneven surface.
- **Concrete specifications.** Do not install the Lift on or within 152 mm of expansion seams or cracked or defective concrete. Make sure the concrete is at least 100mm thick, 3,000 psi, and cured for at least 28 days (if newly poured).
- **Power.** You will need a 220 VAC power source available near the Power Unit.
- **Operating temperature.** The Lift is designed to be used between temperatures of 5° to 40°C.
- **Outdoor installation.** The Lift ***cannot*** be installed outside. It is designed for indoor use only. If you use it outside, use it outside temporarily; make sure to keep it completely moisture free while it is outside.

 **DANGER** Keep the Power Unit away from damp environments; the motor must ***not*** get wet.

- **Second floor installs.** Do not install the Lift on a second floor or elevated floor without first consulting the building architect and getting their permission.
- **Dress properly.** Always wear protective gear when installing the Lift. Leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection ***are mandatory***. Do ***not*** wear loose clothing or jewelry; contain long hair; keep hair, clothing, and gloves away from moving parts.

 **WARNING** You ***must*** wear Personal Protective Equipment ***at all times*** when using the Lift.

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

A Power Unit configured for 220 VAC operation is shipped with a pigtail for wiring to the power source. Have your Electrician remove the pigtail and wire from inside the Electrical Box on the Power Unit to an appropriate Power Cord and Plug.

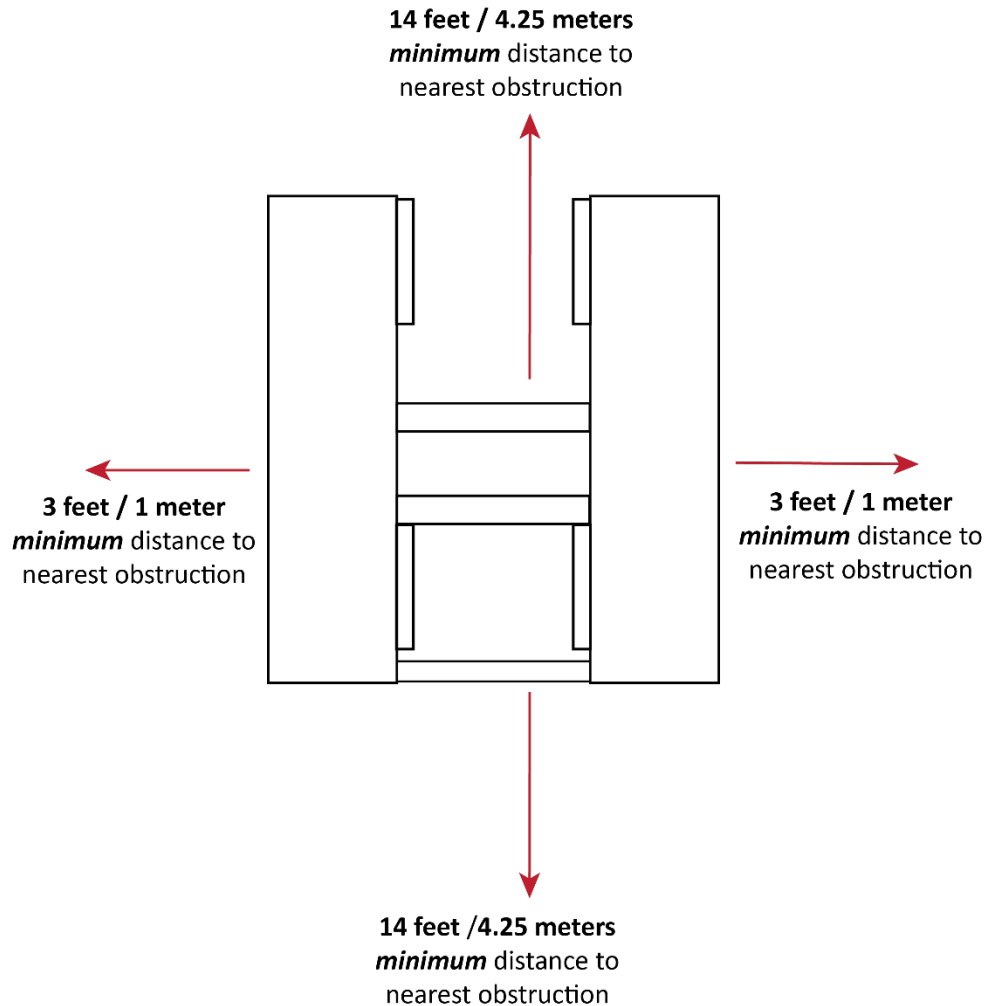
**Note:** The Power Cord and Plug are ***not*** supplied with the Lift.

## Clearance Around the Lift

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

Extra distance is required on both ends so that you can drive Vehicles onto and off of the Lift in either direction.

You also need to make sure to leave enough space **above** the Vehicles you will be raising. Be sure to check for low-hanging obstructions such as hanging lights, beams, and so on.



## Unloading and Unpacking

Try to have the components of the Lift unloaded near the installation location.

Once the components are unloaded, it is your responsibility to move them around. As the Lift includes a number of heavy pieces, the closer you unload it to the installation location, the better off you are.

### ⚠ CAUTION

The Frame is heavy; if handled incorrectly, it can damage materials like tile, sandstone, and brick. Try to handle the Lift components twice: once when delivered and once when moved to the installation location. Use care when moving the Frame.

## Installation

The LiftMotive LM-2800MRP will be delivered on one pallet and has a total of 4 packages.

1. Scissor Lift Frame



2. Hydraulic Power-unit



3. Parts box



4. Tow Cart



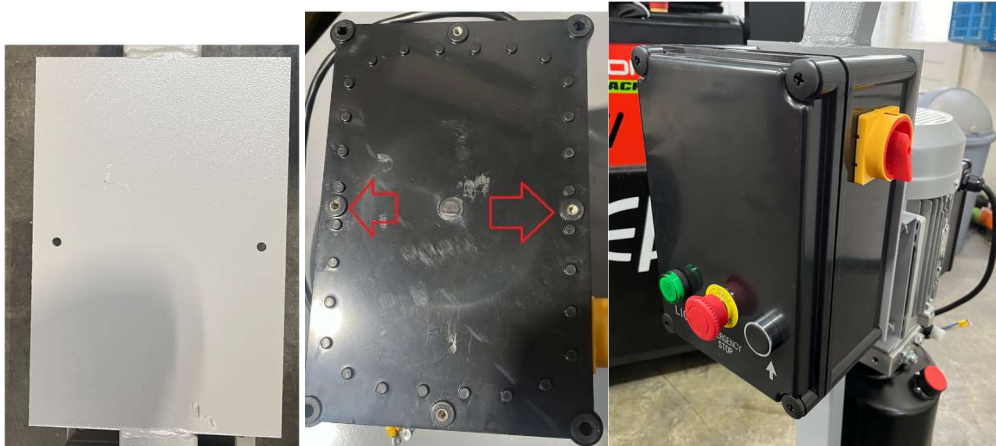
### The Partsbox (3) contains:

- 4x SUV adapter
- 1x Hydraulic Hose
- 1x Cable Sleeve
- 1x long steel cable, 1x Short steel cable
- 2x Handles
- 1x Bag with bolts and small parts
- 1x Manual
- 1x 220V Control Box
- 1x Installation Manual

Mount the hydraulic power-unit on the tow cart (4 bolts)



Install the electrical box on the tow cart (2 screws)



The hydraulic power-unit has a cable installed. You are going to use this cable on the 220V control box at a later point, for now disconnect and remove this cable from the power-unit.

First, remove the black cover on the power-unit by removing the 4 screws. Pull out the condensators shown on the second picture to create more space. Disconnect all connections (left side in the control box, Blue, Brown and Green/Yellow) of the power-cable and pull out the power-cable. Do NOT throw away this cable, you will need it in next steps.

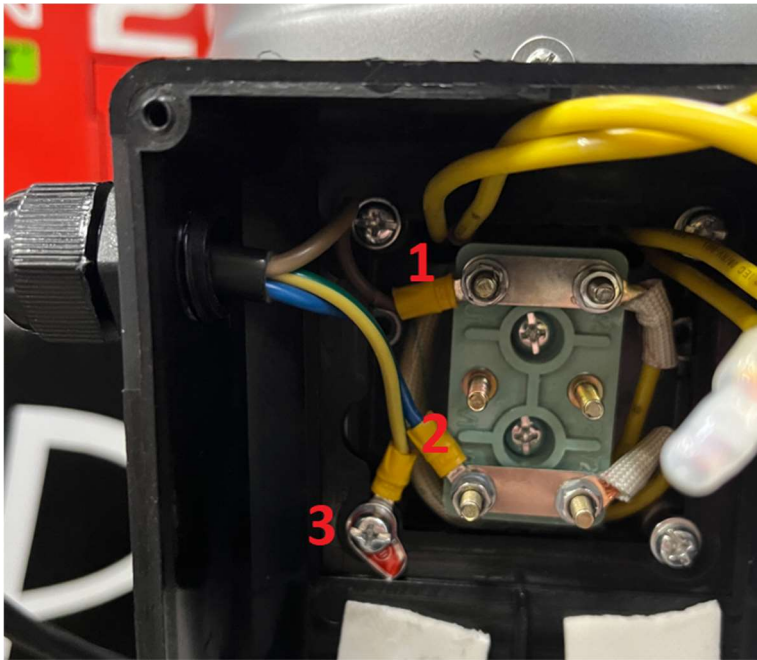





Connect the wire coming out of the electrical control box on to the Power-unit

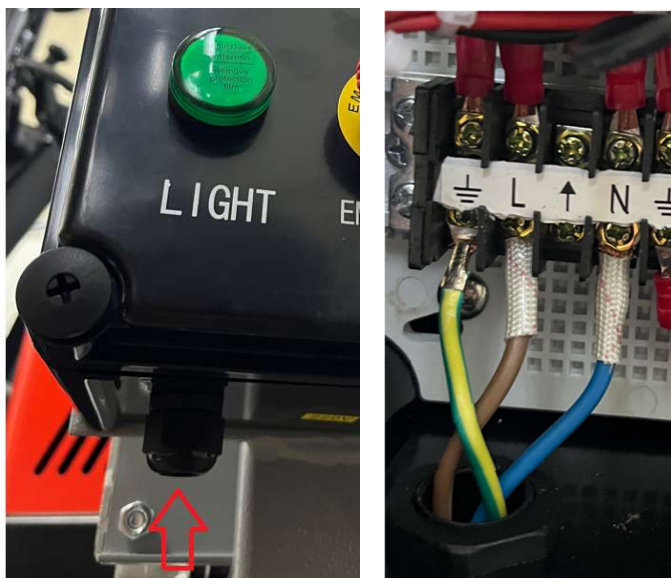


- (1) Brown to upper connection U1
- (2) Blue to lower connection W1
- (3) Green/Yellow to Earth / ground




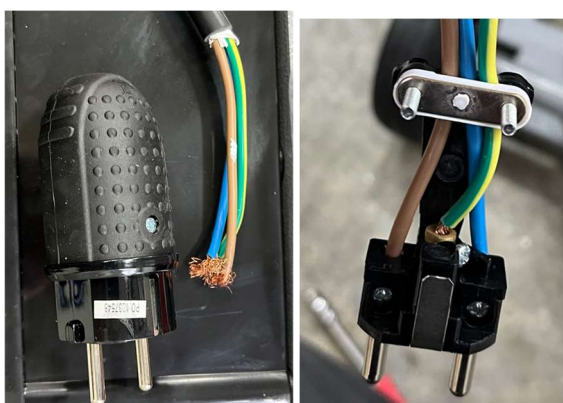
Route the the wire which you have removed from the power-unit to the electrical control box, through the grommet and connect as following:

1. Yellow/green -> to Earth/ground 
2. Brown -> L
3. Blue -> N



Connect the electrical plug to the wire

1. Yellow/green -> to Earth/ground  (middle)
2. Brown -> Left
3. Blue -> Right



Install the handle for the locking system onto the tow cart

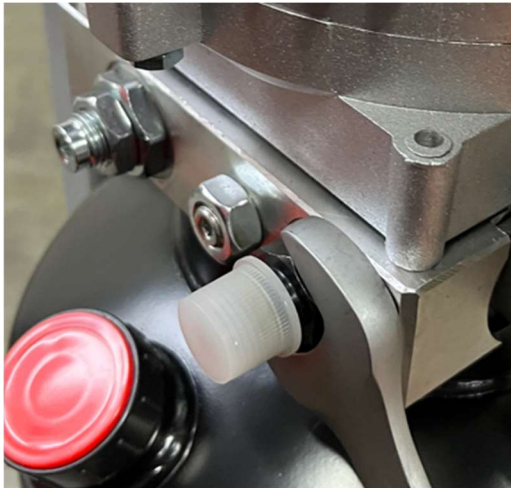


Add the cable, pull it by hand and place it into the handle





Check tightness of the hydraulic adapter on the power-unit:



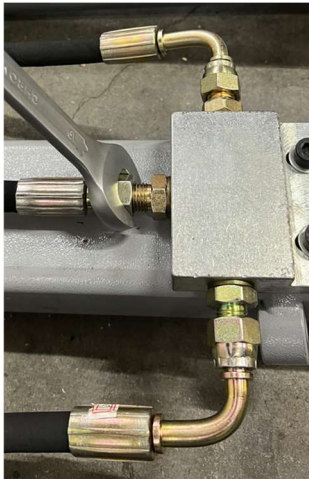
Install the hydraulic hose



slide the cable sleeve over the hydraulic hose and cable



Install the other side of the hydraulic hose onto the lift



Remove components from the other side of the cable



Slide the cable with 1 nut through the restrainer



Add the second nut to the cable



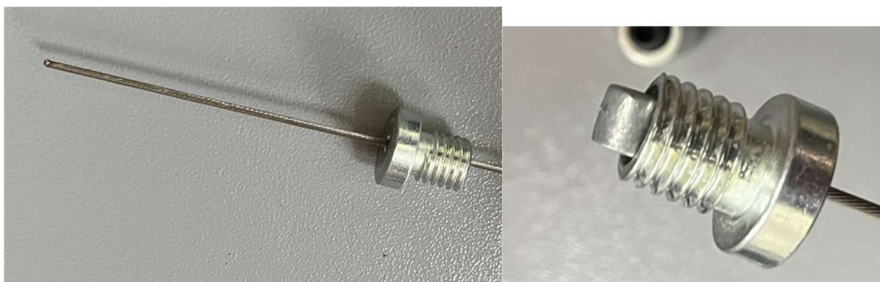
Add rest of the parts



Locate parts:



Slide cable through adapter





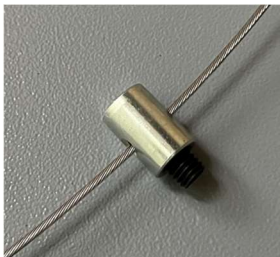
Add second adapter and tighten



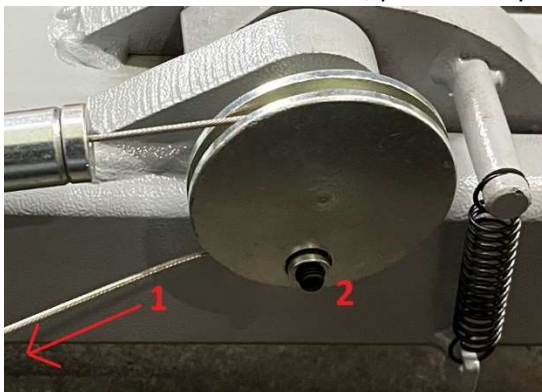
Mount on main cable



Slide the cablestop over the cable



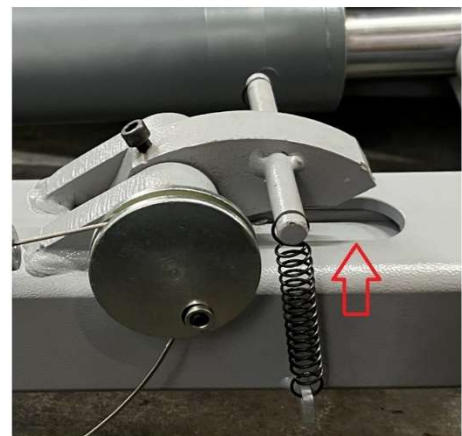
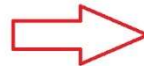
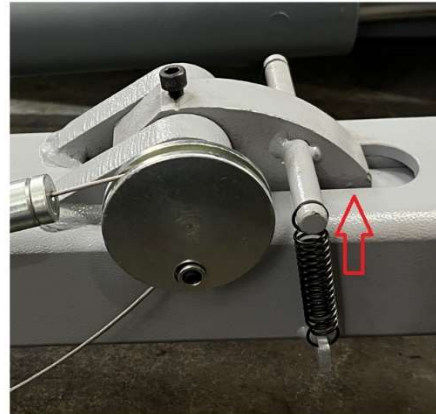
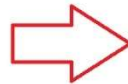
Route the cable over the wheel, pull cable by hand (1) and tighten the cable stop (2) at the same time



Test the lock / cable

1 – handle not operated = lock engage

2 – handle operated = lock disengage



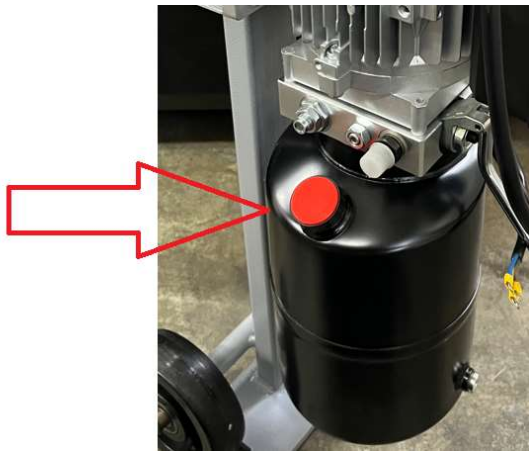
Adjust the cable looser when lock is disengaged all the time

Adjust the cable more tighter when the lock does not disengage when operating the handle

Zip tie both ends of the cable sleeve



Fill the reservoir with hydraulic oil, +- 5 Liter.



Connect the controlbox to a power-source and press the black UP button. The lift should now raise. Lift all the way up and check if the locks are engaging. If you press the lower handle on the hydraulic power-unit, the lift should lower into a locking position.



To lower the lift completely to the ground, operate as following:

1. Press UP / Lift
2. Press+hold the unlock handle
3. Press the lowering handle



The lift will now lower completely. Check oil level after the first cyclus and refill if needed.



## User Instructions:

### Lifting

Press the up button until you reach the desired height. As the lift rises, the safety pins automatically engage in each limit block.

### Lower (safety lock)

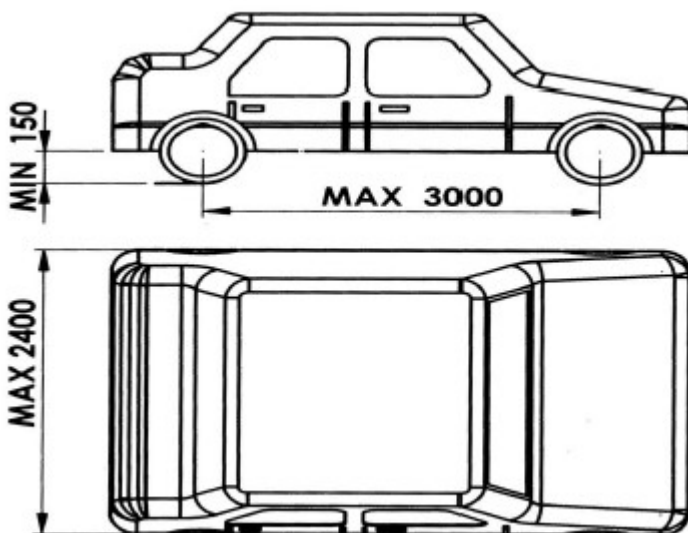
Once the desired height is reached, press the lowering valve handle. The lift will then descend and rest on the first limit block it comes into contact with.

### Maximum dimensions of vehicles to be lifted:

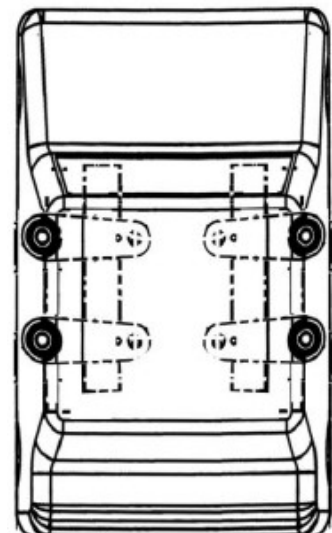
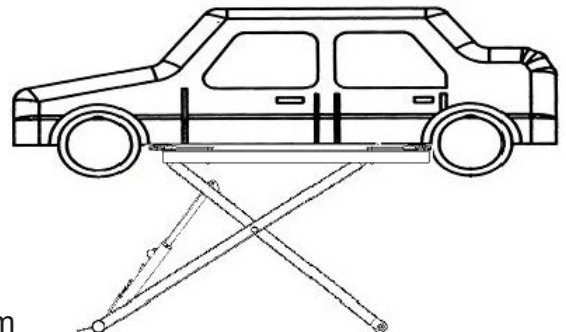
Max Width: 2400mm

Max wheelbase: 3000 mm

**Note:** The undercarriage of vehicles with low ground clearance can interfere with the lift's structure. Pay particular attention to this when dealing with low sports cars. Always consider the lift capacity when dealing with vehicles with special characteristics.



### Weight Distribution:



The lift must be inserted from the front or rear, never from the side. It is important to position the vehicle on the lift so that the weight is distributed correctly on the arms.

Personnel should not be in the area while the vehicle is being lifted.

- Vehicle Check:
- •The engine is off.
- •Gear is in neutral.
- •Handbrake is engaged.
- •Check that the lift blocks are correctly positioned at the vehicle's lifting points.

### NOTE:

- The lift must be inserted from the front or rear, never from the side.

# Operation

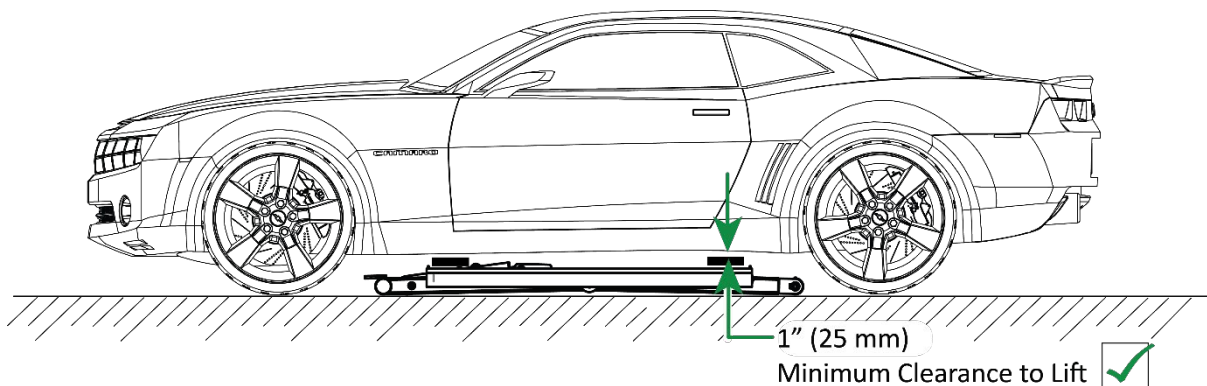
This section describes how to operate your Automotive Lift.

**⚠ DANGER** When you even hear the words “Automotive Lift,” your brain should automatically remember that lifting a Vehicle is a serious endeavor with life-threatening risks. Focus on what you are doing. Automotive Lifts are dangerous tools when used by inexperienced or impaired operators. ***Do not assume you are going to be safe this time because nothing happened last time.***

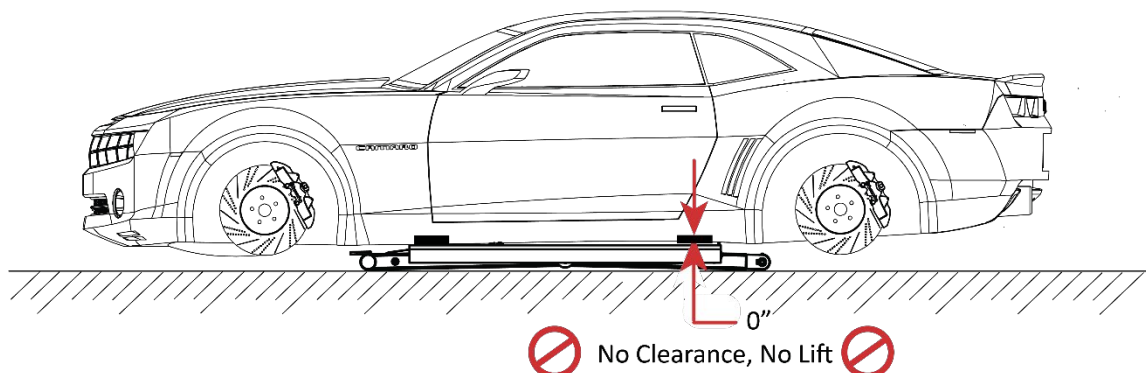
## Safety Considerations

**⚠ WARNING** Your safety is dependent on reading, understanding, and implementing these Safety Rules. ***Do not skip over them—read them carefully and follow them; your life could literally depend on it!***

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



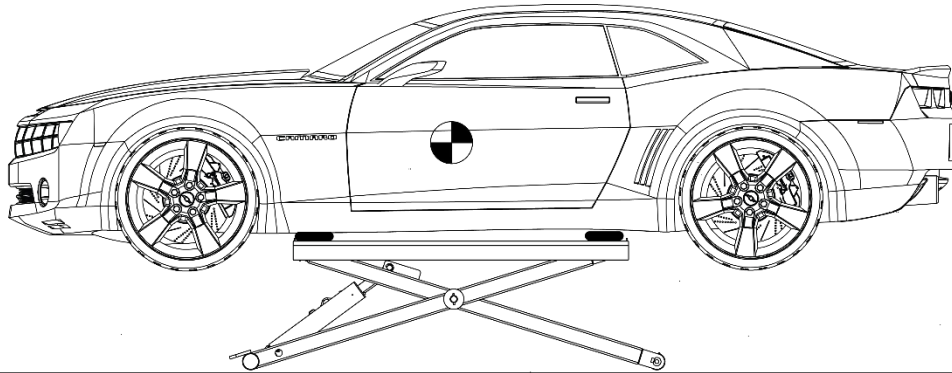
**⚠ WARNING** **NEVER** lower a vehicle all the way to the floor with the wheels removed. **Failure to comply with these instructions will void the product warranty.** Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use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



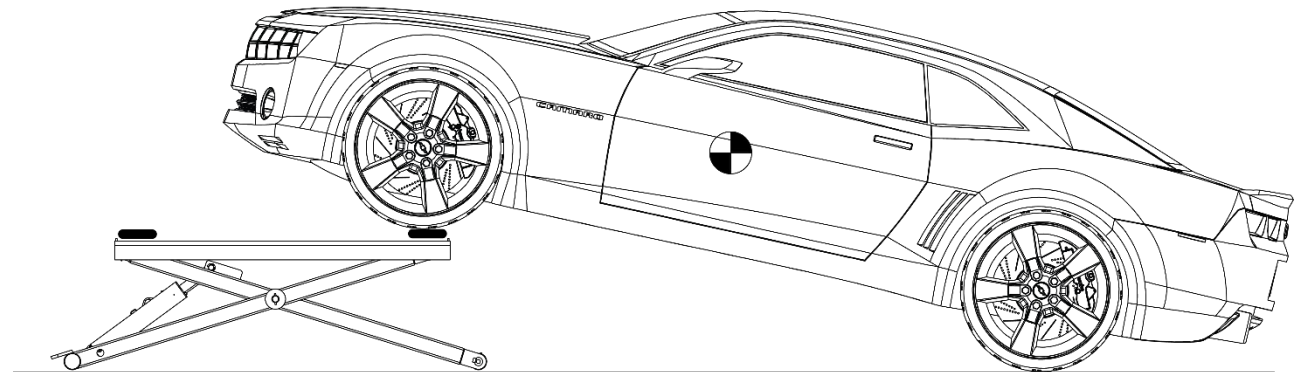


**⚠ WARNING**

**Always** position the Lift Arms and Pads under the Vehicle so that they are directly under the manufacturers lifting points. If you are unsure of the Lifting Points' location, consult *Vehicle Lifting Points for Frame Engaging Lifts*, which is available on the ALI website. ([www.autolift.org/ali-store](http://www.autolift.org/ali-store)) Keep loads centered and balanced.



Always position the Lift Pads directly under the manufacturer's recommended Lifting Points. ✓



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

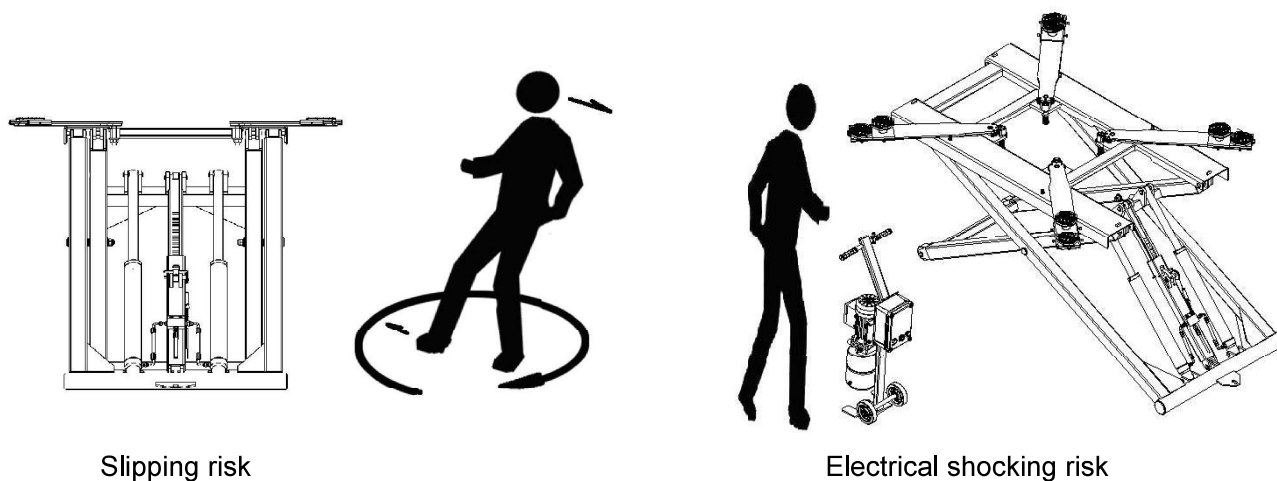
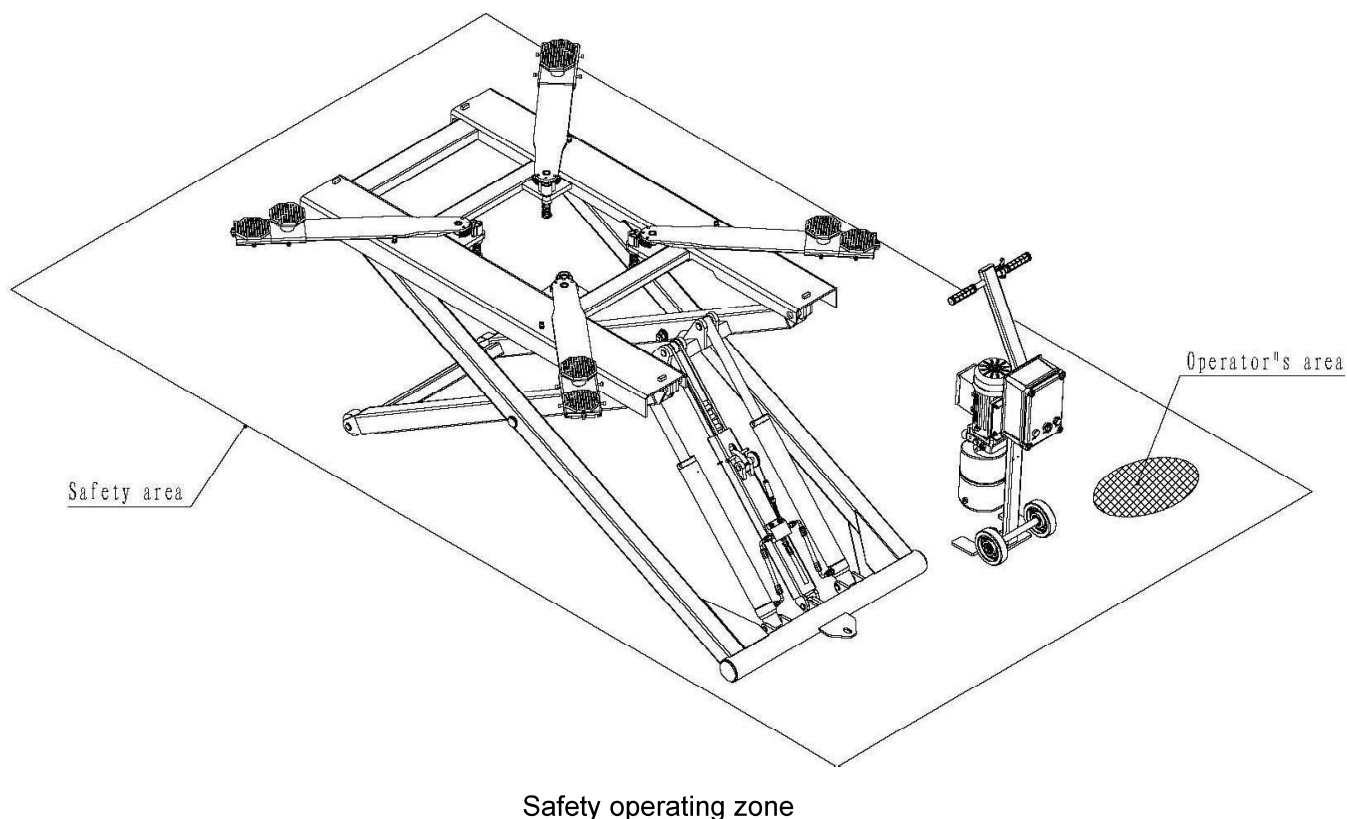


**Each time before** you raise a Vehicle on your Lift:

- **Check the Lift.** Walk all the way around the Lift, checking for any missing, heavily worn, or damaged parts. Do not operate the Lift if you find any issues; instead, take it out of service, then contact your dealer, email [info@liftmotive.com](mailto:info@liftmotive.com), or call **+31 627365781**.
- **Check the area.** Keep the area around and under the Lift clean and free of obstructions; anything that could cause a problem. Do not forget to check **above** the Lift. If you find an obstruction, move it out of the way.
- **Check the operators.** Make sure everyone who is going to operate the Lift has been trained in its use, has read the labels on the unit, and has read the manual. Only the operator at the Controls should be within 30 feet of the Lift while it is moving. Do not allow children to operate the Lift. Do

The Manufacturer assumes no responsibility for any harm to individuals or damage to vehicles and other items resulting from improper and unauthorized utilization of the lift. While the lift is in motion, both during lifting and lowering, the operator should position themselves at the front of the vehicle. It is absolutely prohibited for individuals to be within the danger zone, as indicated in the illustration below.

Using the lift without the safety locking device is strictly prohibited. Failure to adhere to these guidelines could result in severe injuries.



### **Risk of electric shock**

Do not use water, high pressure washing machines or paint in the area of the lift.

## Lowering

Before lowering the lift, raise it slightly so that the safety lock is released. Then, the safety pins must be released using the safety lock release handle. Then press the lowering handle while holding the safety lock release handle down to lower the lift. Lowering stops when the hydraulic cylinders are fully unloaded.

## Moving the lift

Hook the lifting handle located under the hydraulic tank on the trolley through the hole in the lift's frame structure. Then lift the lift and move it to the desired location (see page 11).



**Warning:** Maintenance should only be performed by trained personnel familiar with the lift. When performing maintenance on the lift, follow all necessary precautions to prevent accidental operation. To ensure the lift functions fully, follow the maintenance schedule below. LiftMotive is not responsible and will not fulfill the warranty as a result of non-compliance with the instructions.

**Note:** It is forbidden to perform maintenance on the hydraulic cylinder. It should be replaced if damaged. The specified frequency applies to normal operating conditions; different frequencies will apply for specific working conditions.

### Every month:

Hydraulic reservoir: Check the oil level in the tank using the special oil dipstick attached to the filler cap. If necessary, add oil through the cap to reach the desired level (use VG32).

### Hydraulic circuit:

Check that there are no oil leaks in the connection between the engine and the reservoir, as well as in and to the cylinder itself.

### Hydraulic pump

Under normal operating conditions, check for abnormal noises in the motor and gearbox and make sure the bolts are properly tightened.

### Safety system:

Check operating conditions and the effectiveness of the safety devices and the wear on safety pins and hinge pins. Oil the pins on the safety pins. If excessive wear occurs, replace the safety pins and/or pins.

- Use a torque wrench to check that bolts, etc., are properly tightened.
- Clean and lubricate the lift's cylinders and guides.
- Check that all screws are tightened.
- Check that the arm locking system is functioning correctly.
- Lubricate all moving parts.

## **Every 6 months:**

### **Hydraulics**

Check the condition of the oil. Contaminated oil is the main cause of valve malfunction and leads to a shorter lifespan of the gear pumps.

## **Every 12 months:**

General check:

- Visual inspection of all structural parts and mechanisms to ensure there are no problems or deviations.
- Electrical system: Professional electricians should test the electrical system, including the power unit, cables, limit switches, and control box.

### **Change the oil according to the instructions below:**

1. Lower the lift to the lowest height (on the ground).
2. Make sure the hydraulic cylinder is at the end.
3. Disconnect the power supply to the lift.
4. Drain the oil from the hydraulic system and unscrew the plug located at the bottom of the power unit.
5. Close the drain plug.
6. Fill the oil cylinder in the hydraulic station with oil through the fitting located at the top of the hydraulic station. The oil must be filtered.
7. Close the fill plug.
8. Start the lift.
9. Go through two or three up-and-down cycles (at a height of about 20-30 centimeters) to get oil into the system.

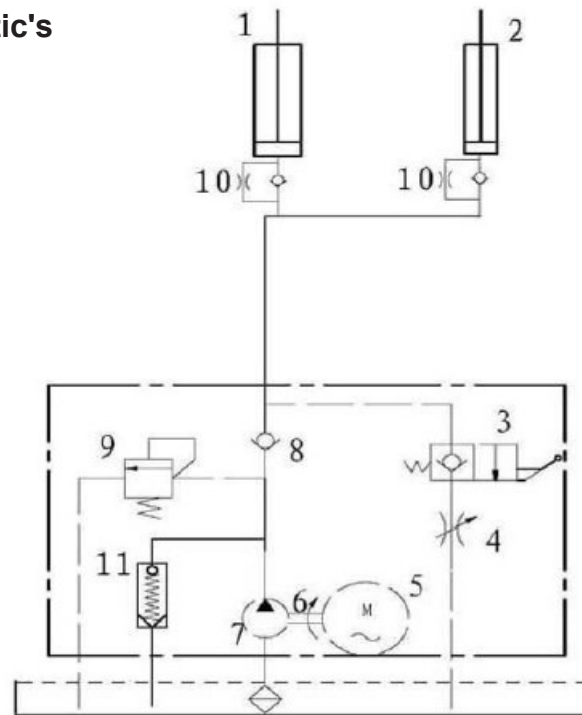
When changing oil: Do not use oil that has been stored for a long time. We recommend VG32.

## **Storage**

If the machine is to be stored for an extended period of time, you must:

1. Lower the platforms and do not place any heavy objects on them.
2. Disconnect the machine from all power sources.
3. Lubricate all parts that can be damaged if they dry out.
4. Drain the hydraulic oil tank and wrap the machine in protective plastic to prevent dust from entering the inner parts.

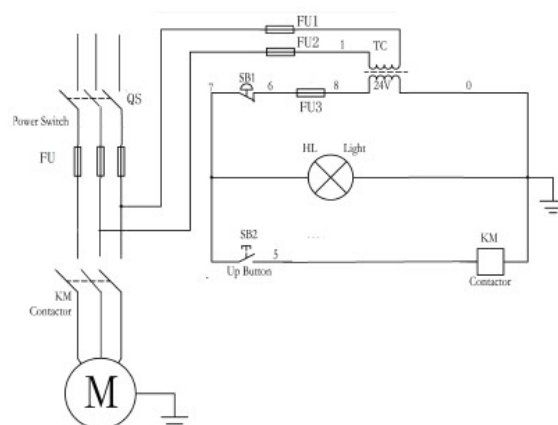
## Hydraulic schematic's



1. Cylinder	2. Cylinder	3. Relief Valve	4. Restrictor valve
5. Motor	6. Gear pump	7. Oil Tank	8. One-way valve
9. Overflow valve	10. Safety restrictor	11. Pressure relief valve	

1 Hydraulic cylinder 2 Anti-leakage valve 3 One-way valve 4 Relief valve 5 Lowering valve  
6 Throttle valve 7 Gear pump 8 Motor 9 Filter

## Electric Schematic's



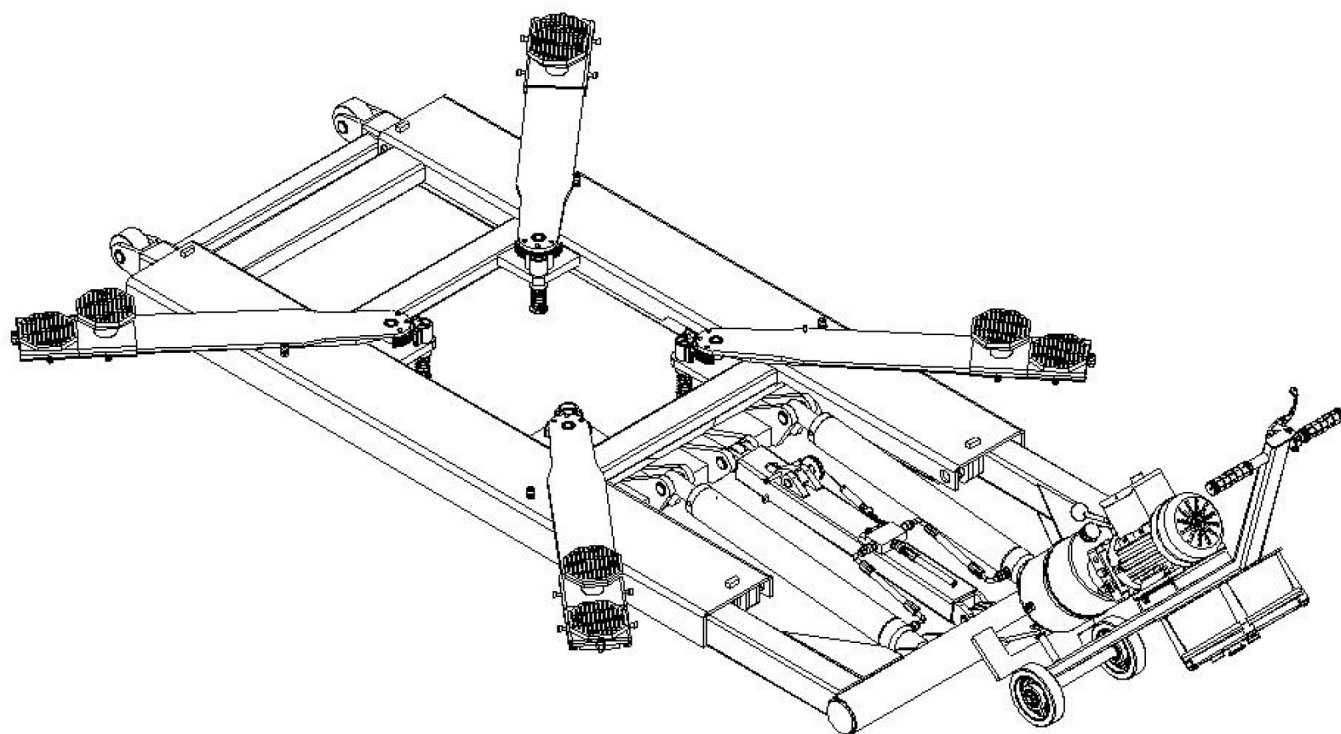
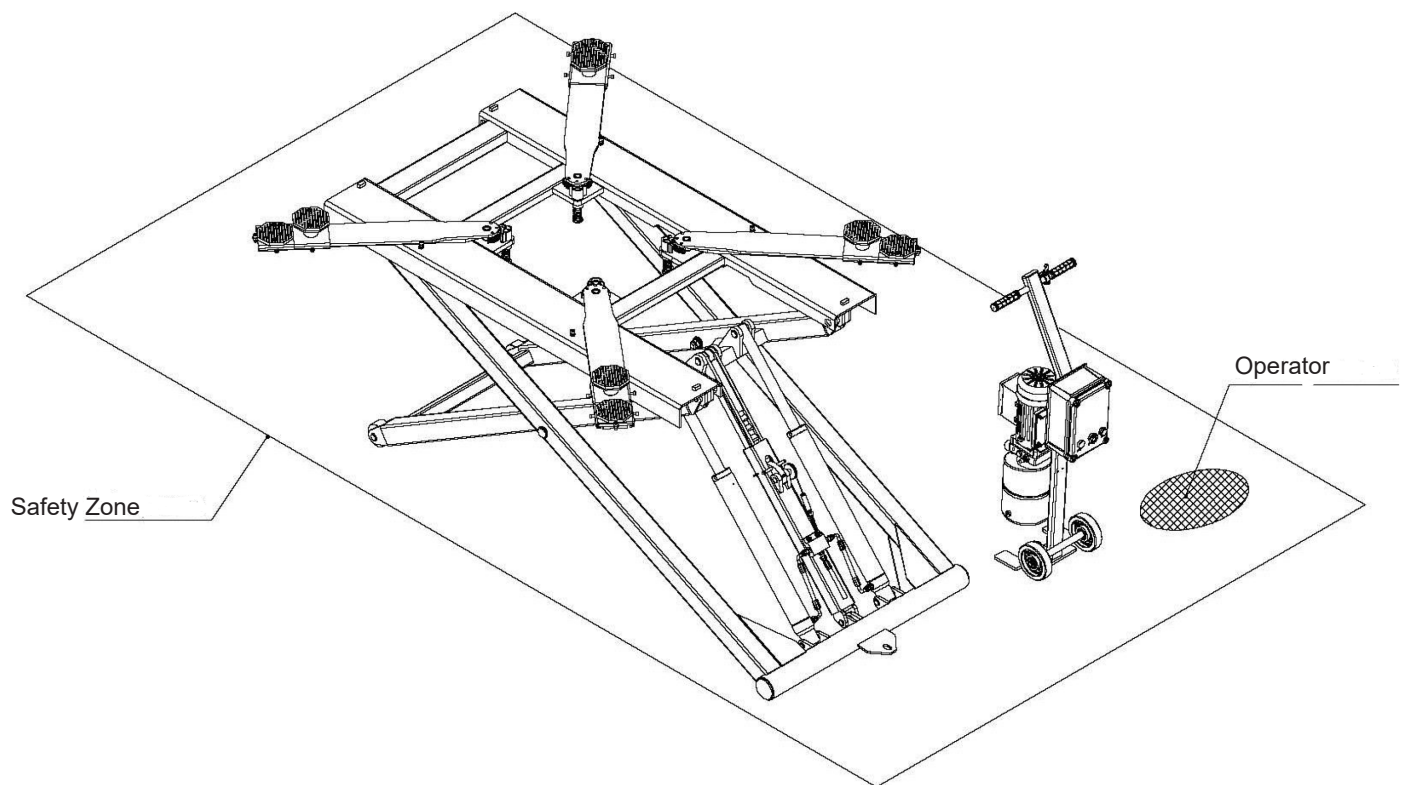
SB1: Main switch  
FU2: Fuse

FU: Fuse  
FU3: Fuse

KM: Contactor  
TC: Transformer

M: Motor  
HL: Lamp

FU1: Fuse  
SB2: Up button



## Trouble shooting

Phenomenon	Reason	Method
Lift makes excessive noise	Friction mark inside column	Add some lubricating oil
	Obstacle inside column	Clear the inner obstacles
Motor does not run	Motor broken line burn out	Replace motor
	Bad wire contact	Check and connect the line
	The limit switch is off line, bad operation, damage	Connect the line. Adjust or change the limit switch.
Motor runs but will not rise	Motor reversal	Corrective wiring method
	Overflow valve loose or blocked	Adjust or clean overflow valve
	Gear pump damage	Replace gear pump
	Hydraulic oil shortage	Supply hydraulic oil
	Oil suction pipe loose and fall off	Tighten the suction pipe
	Cushion valve is loose or blocked	Tighten or clean the cushion valve
Lift go down itself after lifting up	Cylinder seal is bad	Replace seals
	Check the oil hose for leaks	Change the oil hose
	One way valve is not sealed properly	Decompose, clean, remove, or replace
	Overflow valve is not good	Decompose, clean, remove, or replace
	Manual unloading valve or electromagnetic unloading valve is not	Decompose, clean, remove, or replace
	Steel cable is loose	Check whether the steel cable is flat
Rise slowly	Oil filter is blocked	Clean, remove, or replace
	Oil pressure is mixed air	Supplemental hydraulic fluid
	Overflow valve adjustment is not in place	Adjustment
	Hydraulic oil becomes hot (45° above)	Replace hydraulic oil
	Cylinder seal abrasion	Replace seals
	The cylinder lubrication is poor	Replace the lubricant
Slow down	The downward throttle is stuck and has obstructions	Clean, remove, or replace
	The hydraulic oil is dirty	Replace hydraulic oil
	Explosion-proof parachute valve has obstruction	Replace Explosion-proof parachute valve
	Hydraulic hose has an obstruction	Hydraulic hose has an obstruction
Steel cable is not smooth	No grease lubrication during installation	Replace steel cable