

Forward this manual to all operators.  
Failure to operate this equipment as  
directed may cause injury.

## INSTALLATION AND OPERATION MANUAL

# AUTOMOBILE STACKER

**Model**  
**PL-7 / PL-7X**



Keep this operation manual near the machine at all times. Make sure that ALL USERS read this manual .

### SHIPPING DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Consequently, claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

### BE SAFE

Your new lift was designed and built with safety in mind. However, your overall safety can be increased by proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.

**Bend-Pak®**  
**INCORPORATED**

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# **AUTOMOBILE STACKER**

**READ THIS ENTIRE MANUAL BEFORE OPERATION BEGINS.**

RECORD HERE THE FOLLOWING INFORMATION  
WHICH IS LOCATED ON THE SERIAL NUMBER DATA PLATE

Serial No. \_\_\_\_\_

Model No. \_\_\_\_\_

Manufacturing Date \_\_\_\_\_

## **WARRANTY**

Your new lift is warranted for 12-months on equipment structure to be free of defects in material and workmanship. The manufacturer shall repair or replace at their option for this period those parts returned to the factory freight prepaid which prove upon inspection to be defective.

The manufacturer will pay labor costs for the first 12 months only on parts returned as previously described.

This warranty does not extend to defects caused by ordinary wear, abuse, misuse, shipping damage, or lack of required maintenance.

This warranty is exclusive and in lieu of all other warranties expressed or implied. In no event shall the manufacturer be liable for special, consequential or incidental damages for the breach or delay in performance of the warranty. The manufacturer reserves the right to make design changes or add improvements to its product line without incurring any obligation to make such changes on product sold previously.

Warranty adjustments within the above stated policies are based on the model and serial number of the equipment. This data must be furnished with all warranty claims.

**WARRANTY IS NOT VALID UNLESS  
WARRANTY CARD IS RETURNED**

# INTRODUCTION

1. Carefully remove the crating and packing materials. **CAUTION!** Be careful when cutting steel banding material as items may become loose and fall causing personal harm or injury.
2. Inspect the lift for any signs of concealed shipment damage or shortages. Remember to

report any shipping damage to the freight carrier and make a notation on the delivery receipt.

3. Check the voltage, phase and proper amperage requirements for the motor shown on the motor plate. Wiring should be performed by a certified electrician only.

## IMPORTANT SAFETY INSTRUCTIONS

*Read these safety instructions entirely!*

1. Read and understand all safety warning procedures before operating equipment.
2. Keep hands and feet clear. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
3. Keep work area clean. Cluttered work areas invite injuries.
4. Never allow untrained operators to use this equipment. Only trained users should operate this equipment. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate equipment.
6. Use correctly. Use lift in the proper manner. NEVER exceed rated capacity. NEVER use lifting adapters other than what is approved by the manufacturer.
7. Do not override self-closing lift controls.
8. Remain clear of lift when raising or lowering vehicle.
9. Clear area if vehicle is on danger of falling.
10. Always insure that the safeties are engaged before leaving parking area.
11. Dress properly. Non-skid steel -toe footwear is recommended when operating lift.
12. Guard against electric shock. This lift must be grounded while in use to protect the operator from electric shock.

Never connect the green power cord wire to a live terminal. This is for ground only.

13. Danger! The power unit used on this lift contains high voltage. Disconnect power at the receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.

14. Warning! Risk of explosion. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.

15. Maintain with care. Keep lift clean for better and safe performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.

16. Stay alert. Watch what you are doing. Use common sense. Be aware.

17. Check for damaged parts. Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.

18. Never remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.



**THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS AND CAN CAUSE PERSONAL INJURY OR DEATH. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE.**

## TOOLS REQUIRED

- ◆ Rotary Hammer Drill Or Similar (If Anchoring)
- ◆ 3/4" Masonry Bit (If Anchoring)
- ◆ Hammer
- ◆ 4 Foot Level
- ◆ Open-End Wrench Set: 7/16" - 1-1/8"
- ◆ Socket And Ratchet Set: 7/16" - 1-1/8"
- ◆ Hex-Key / Allen Wrench Set
- ◆ Medium Crescent Wrench
- ◆ Medium Pipe Wrench
- ◆ Crow Bar For Shim Installation
- ◆ Chalk Line
- ◆ Medium Flat Screwdriver
- ◆ Tape Measure: 25 Foot Minimum
- ◆ Needle Nose Pliers

### IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void 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.

**PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.**

## STEP ONE

( Selecting Site )

Before installing your new Auto-Stacker, check the following.

1. **AUTO-STACKER LOCATION:** Always use architects plans when available. Check layout dimension against floorplan requirements making sure that adequate space is available.
2. **OVERHEAD OBSTRUCTIONS:** The area where the auto-stacker will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.
3. **DEFECTIVE FLOOR:** Visually inspect the site where the auto-stacker is to be installed and check for cracked or defective surfaces.

## STEP TWO

( Floor Requirements )



Specifications of floor must be adhered to. Failure to do so could cause auto-stacker failure resulting in personal injury or death.

A level floor is suggested for proper installation. Small differences in floor slopes may be compensated for by proper shimming.

- ◆ DO NOT install this auto-stacker on any surface other than concrete or asphalt.
- ◆ DO NOT install this auto-stacker on any surface that slopes more than 1" laterally or 2" longitudinally per unit location. If a floor is of questionable slope, consider a survey of the site and/or the possibility of installing a new level site.
- ◆ DO NOT install this auto-stacker on expansion seams or on cracked or defective concrete or asphalt.
- ◆ DO NOT install this auto-stacker on a second or elevated floor without first consulting building architect.
- ◆ DO NOT install this auto-stacker outdoors unless special consideration has been made to protect the power unit from inclement weather conditions.

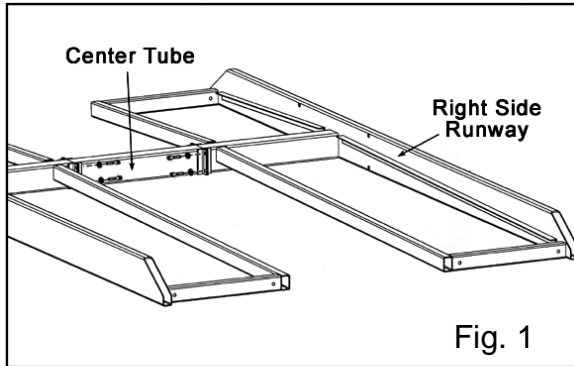
### NOTE

This lift is designed to be installed in groups ( bolted together ) of three units or more. For installation of single or double units only it is suggested to anchor to the floor using 3/4" concrete anchors.

## STEP THREE

( Assembling The Runway Frame )

1. In the area of installation, assemble the right side and left side runways together with the center tube as shown below using eight 1/2" x 1-1/2" hex bolts and nuts. ( See Fig. 1 )

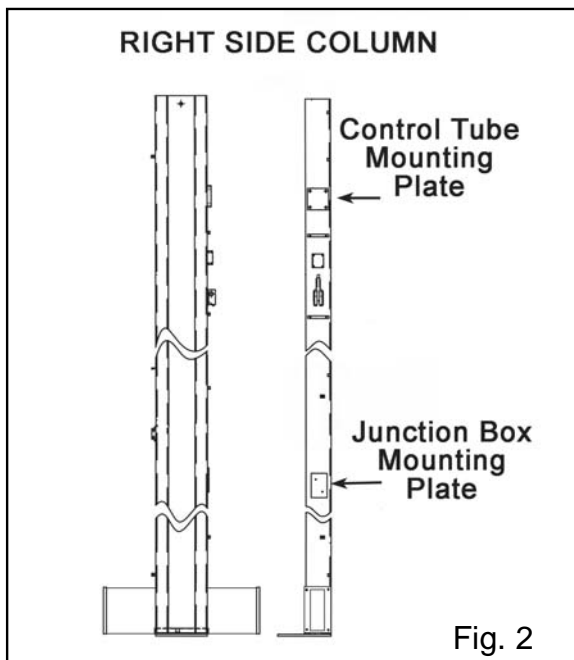


2. Before proceeding, make certain the lift is positioned with clearances around and overhead.

### IMPORTANT NOTE

A level floor is suggested for proper installation. If a floor is of questionable slope, ( more than 1" side to side or 2" within the full length of the lift ) consider pouring a new foundation.

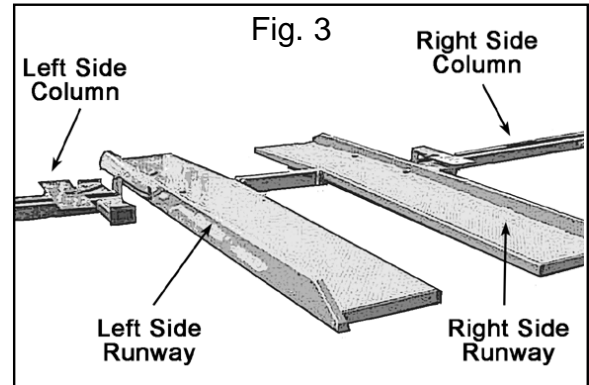
3. Before proceeding, identify the RIGHT SIDE COLUMN and LEFT SIDE COLUMN(S). Note: The right side column has mounting plates for the control tube and electric junction box. ( See Fig. 2 )



## STEP FOUR

( Routing The Equalizer Chains )

1. In the area of installation, lay the columns down adjacent their respective sides of the runways with the opening of the columns facing up and the base(s) adjacent the runways. ( See Fig. 3 )



2. With the columns laying flat on the ground slide the lifting carriage away from the base of the column to expose the rectangle shaped chain connector welded at the base of each column.

3. Using a fish-tape or long wire, route the equalizer chains through the center tube of the runway assembly making sure they are not twisted and laying adjacent each other flat on the bottom of the center tube.

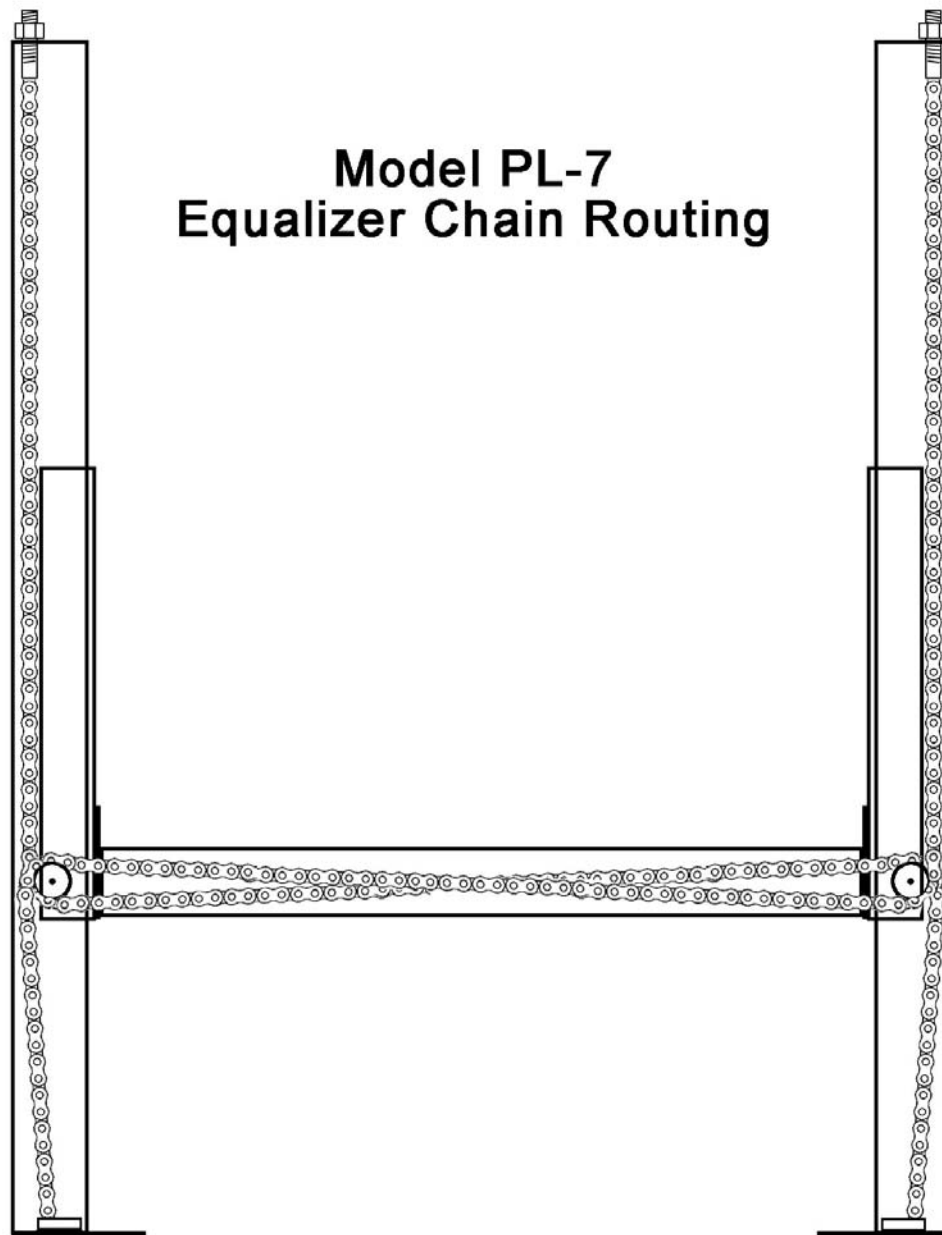
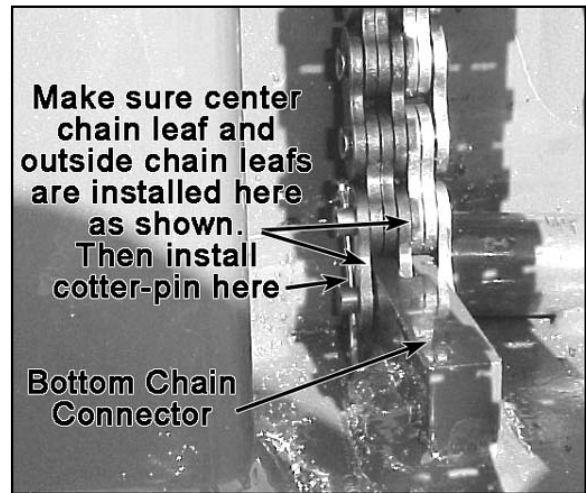
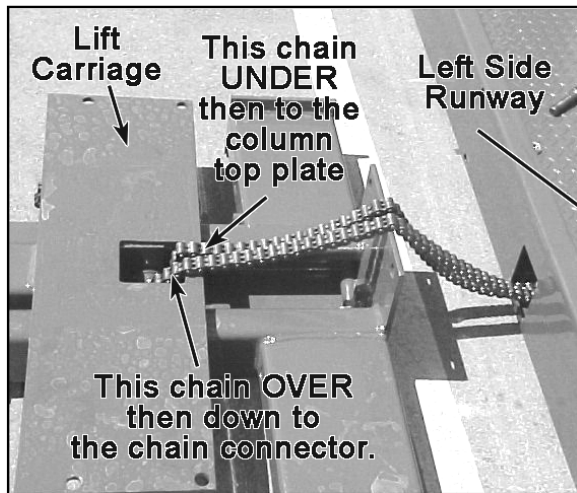
4. Leave the excess chain in equal amounts on each side of the runway assembly.

5. Using the diagram on the following page as a reference, route the chains **over and under** the roller on the lift carriage then connect one side of each chain to the chain connector welded at the base of each column. The chain routed under the roller will be connected later to the column top plate. When the columns are lifted to the upright position, the chain routing should resemble the diagram on the following page.

### NOTE:

The carriage chain rollers are double sided so before proceeding identify which side the bottom chain connector is welded to so the chains will be routed properly.

Following the diagrams below to properly route the equalizer chains.



## STEP FIVE

( Raising The Columns )

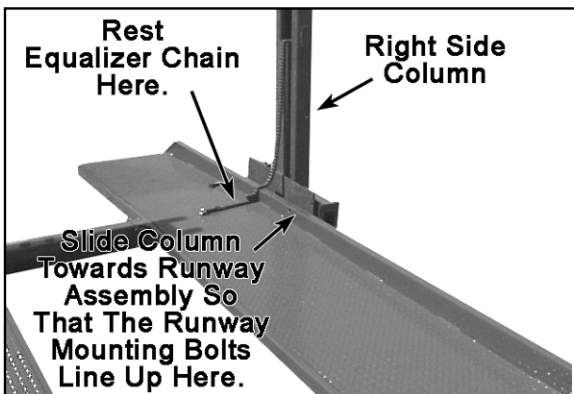
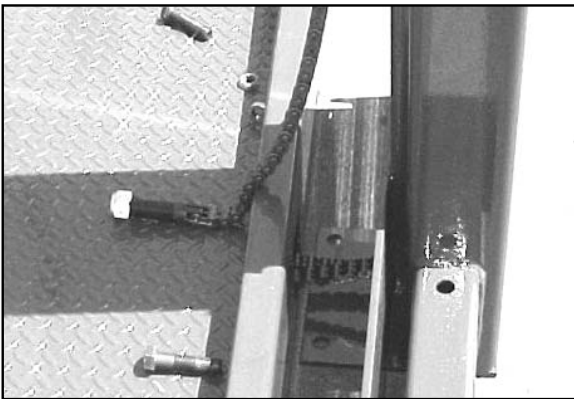


Do not attempt to proceed unless you have additional trained personnel/manpower to assist, a forklift and cargo straps or chains, and/or a lifting crane capable of lifting 2000 lbs. or more.

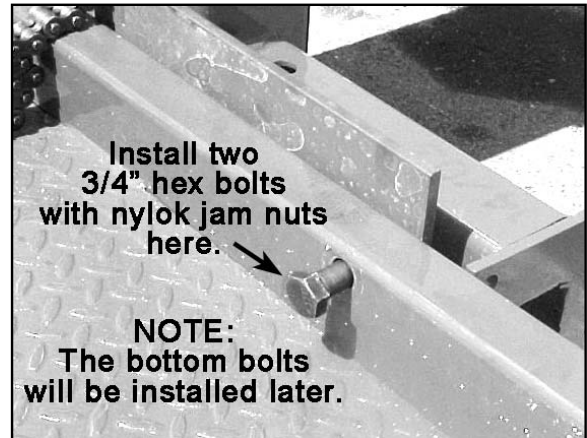
### IMPORTANT NOTE:

Before raising each column tie-off/tape the unattached end of the equalizer chain so that it does not fall inside the column. Make sure that each lift carriage is positioned towards the bottom of each column and that the equalizer chains are pulled tight. The lift carriage will attempt to slide downward rapidly when raising the column if it is not first positioned towards the bottom of the column. **KEEP HANDS CLEAR.**

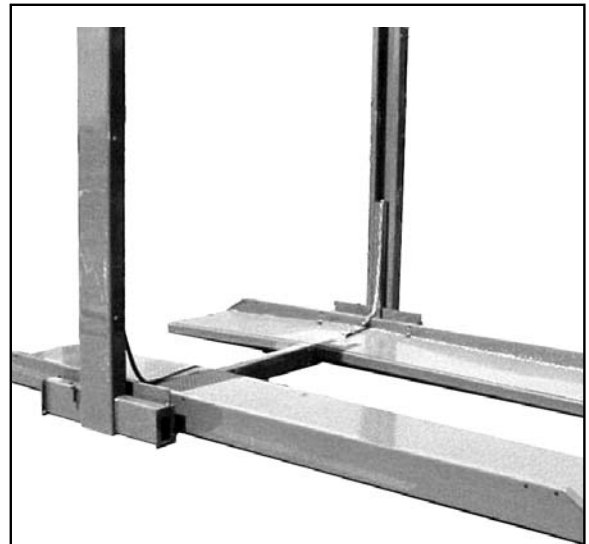
1. Using a forklift or crane, raise the right side column upright then slide towards the runway assembly so that the carriage/runway mounting bolt holes line up. It will be necessary to elevate the runway assembly about 1" off the floor in order to slide the base plate of each column underneath the runway assembly.



2. Install two 3/4" hex bolts and nylok nuts as shown below.

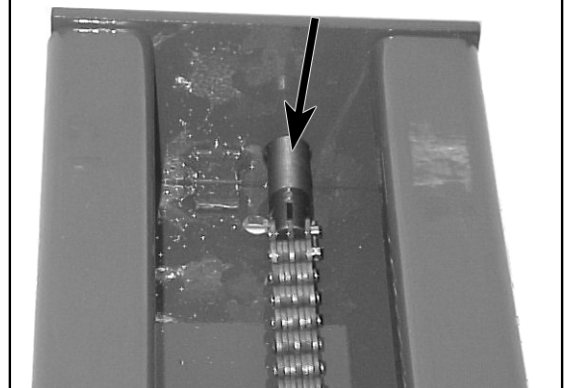


3. Repeat these steps for the left side column then install the top caps and secure the two ends of the equalizer chains.



Rest the column top caps on top of each column then route the chains through the hole.

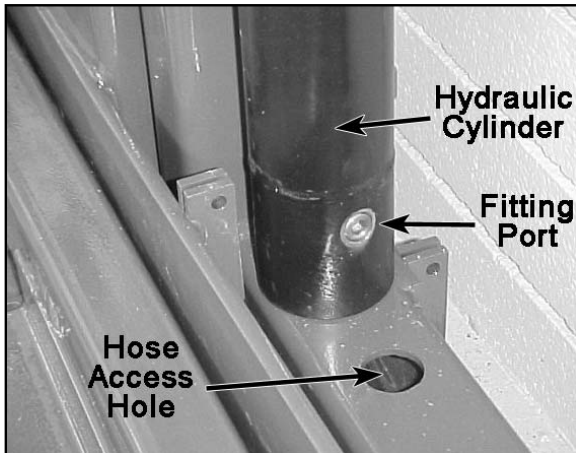
Secure the chain to the top of each column using the 1"-14 nylok nut.



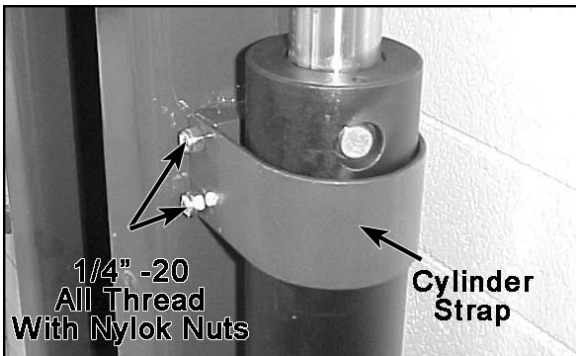
## STEP SIX

( Installing The Hydraulic Cylinders )

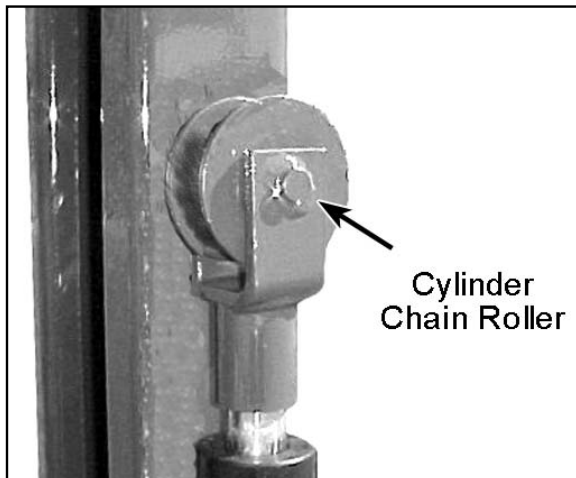
1. Position each cylinder on top of the locating pin(s) at the front end of each support-leg tube with the fitting port pointing in the direction of the hose access hole.



2. Install the cylinder strap(s) as shown using the 1/4" - 20 all thread and nylok nuts.



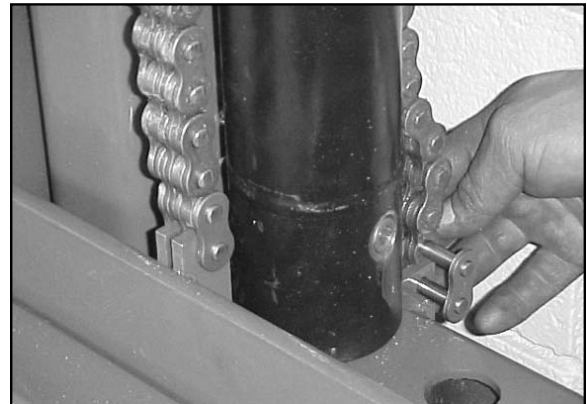
3. Install the cylinder roller on top of each cylinder as shown.



## STEP SEVEN

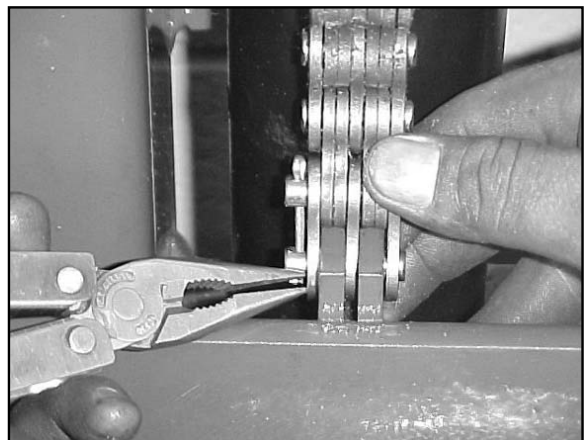
( Installing The Lifting Chain )

1. Route the chain over the cylinder chain roller and connect to the bottom chain connector as shown below.



**! DANGER**

Pay careful attention when connecting chains. Make sure that the connecting pins pass through **ALL** leaves in the chain and through **ALL** sections of the chain connector. Failure to do so could cause lift failure resulting in personal injury or death.

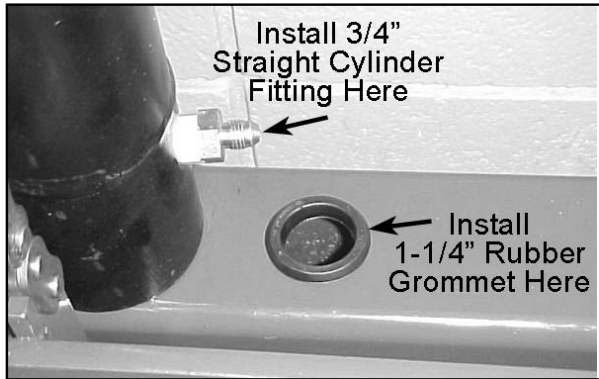




## STEP EIGHT

( Installing The Cylinder Fittings )

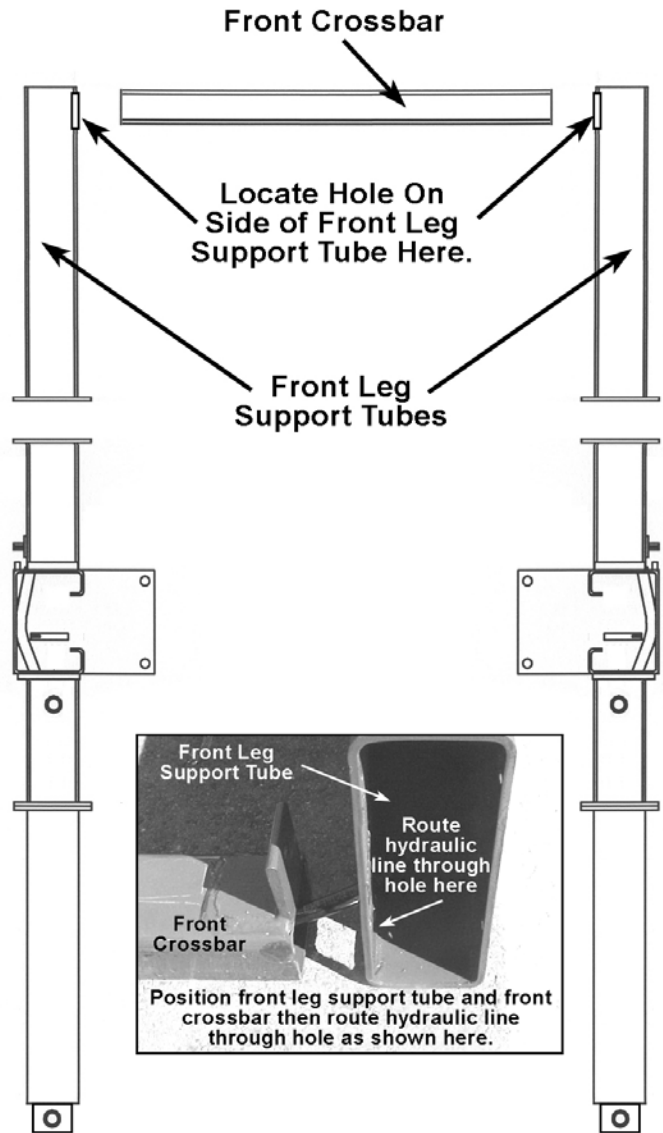
1. Install the cylinder fitting ( with teflon tape ) making sure that it is tightened inside the cylinder threads to prevent leakage. Install the 1-1/4" rubber grommet in the hose access hole as shown.



## STEP NINE

( Position The Front Support Leg Tubes and Front Crossbar )

1. Position the front leg support tubes as shown but DO NOT bolt in position yet. The electrical cord and hydraulic hose needs to be routed prior to bolting in place. **IMPORTANT:** On one side of the front leg support tube ( at the end ) there is a 1" x 2" access hole and a 3/8" bolt hole. This is where the front crossbar mounts to. Position towards THE INSIDE BOTTOM of the lift.

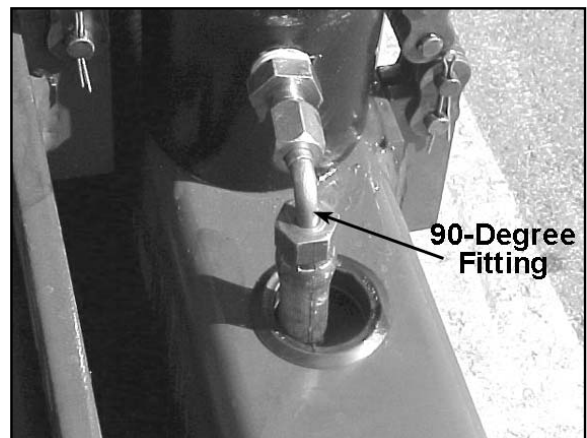
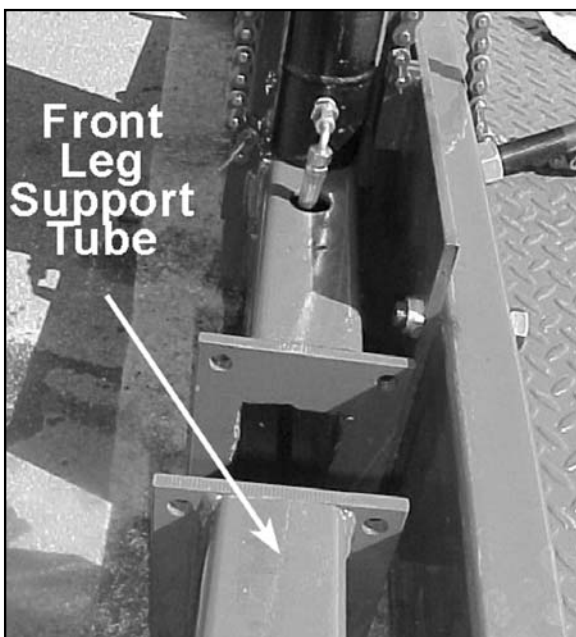


## STEP TEN

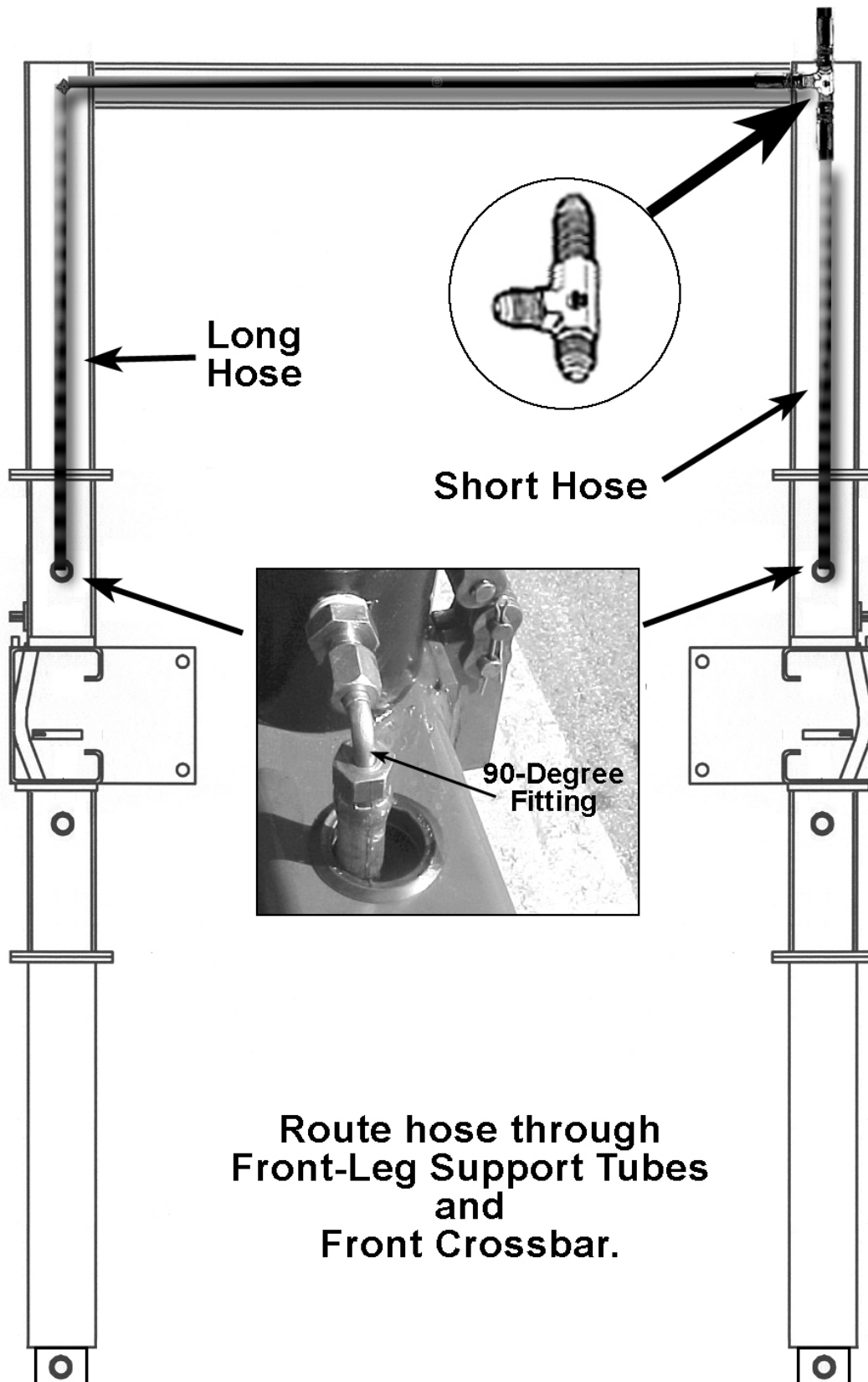
( Routing The Hydraulic Lines )

### IMPORTANT NOTE:

The hydraulic hose **MUST** pass through the front support legs on each column and front cross-bar.



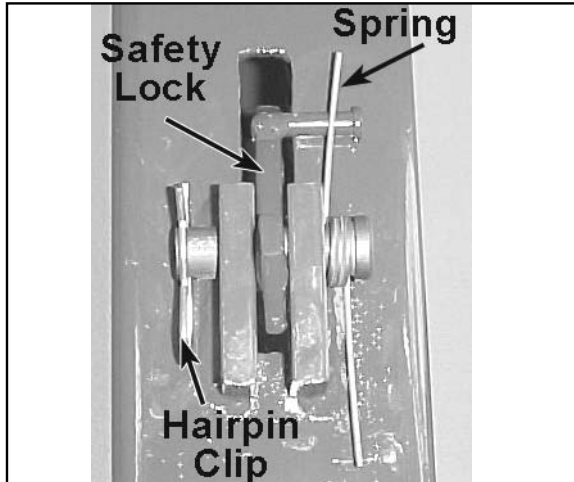
# HOSE ROUTING



## STEP ELEVEN

( Installing The Safety Lock Assemblies )

1. Install the safety lock assemblies, safety springs, 3/4" safety lock pivot pin and hairpin clips on each column as shown.



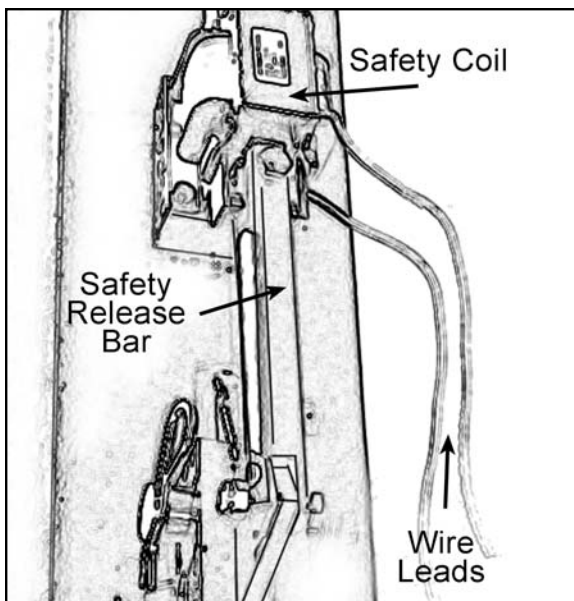
2. Manually check the operation of each safety lock before proceeding. Lubricate each safety lock pivot pin and side support plates with 30-wt. oil.

## STEP TWELVE

( Installing The Release Coil and Connecting Bar )

1. Attach the electric safety coil (**WIRE LEADS FACING RIGHT**) to each mounting plate using the 3/8"-32 socket-head cap screws.

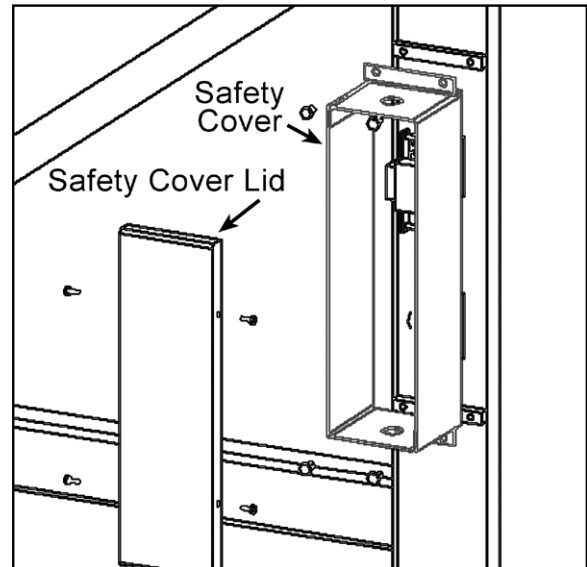
2. Attach the coil release bars to the safety lock and electric safety coil as shown.



## STEP THIRTEEN

( Installing The Safety Covers )

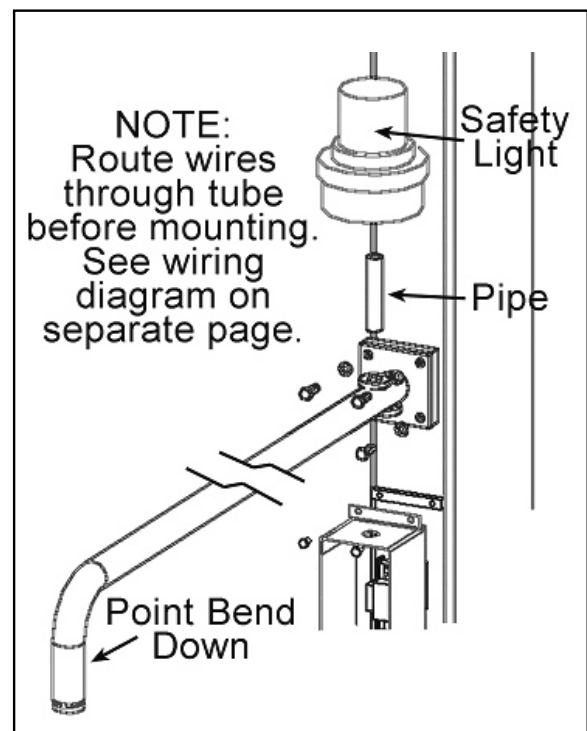
1. Attach the safety covers to each column using the 3/8"-32 socket-head cap screws. **DO NOT INSTALL** lids until installation is completed and locks have been checked for proper operation.



## STEP FOURTEEN

( Installing The Control Bar and Safety Light )

1. Attach the Control Bar and Safety Light as shown using the 1/2"-13 x 1-1/2" bolts and lock washers.

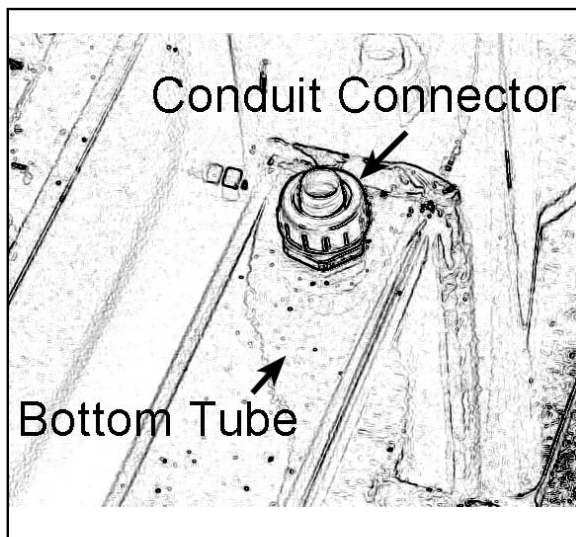
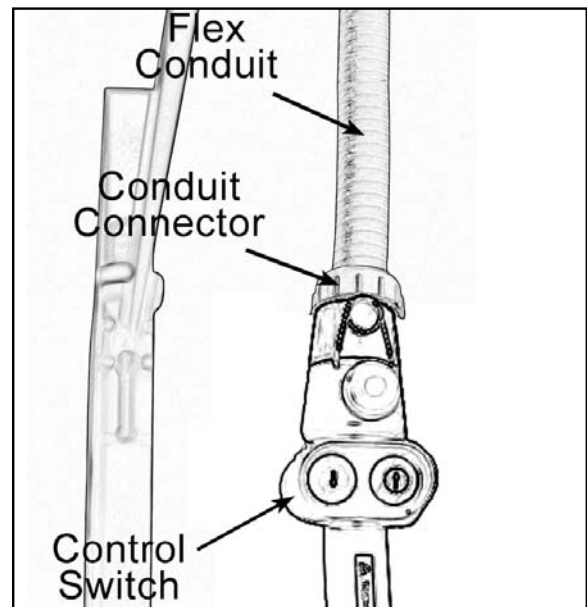
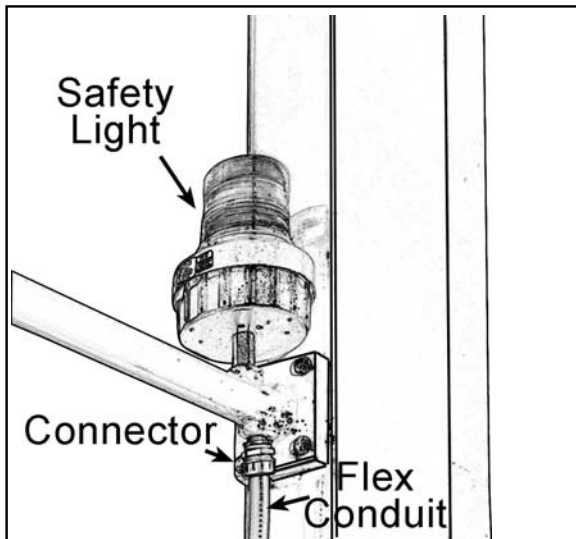
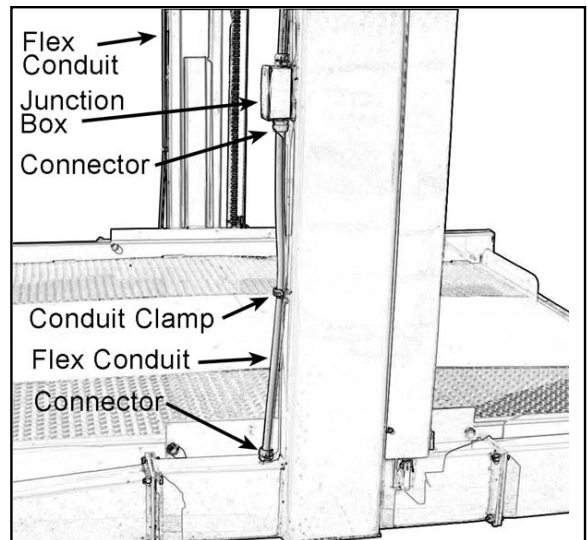
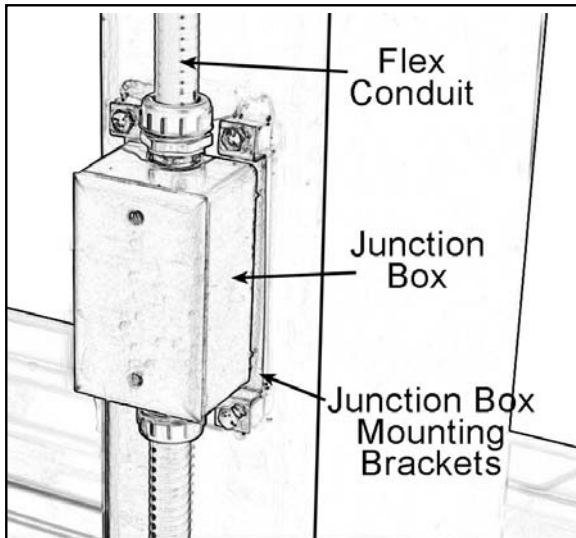


## STEP FIFTEEN

( Installing Flex Conduit and Wiring )

Route wiring and flex conduit as shown on the following pages. Pay careful attention to all connections.

NOTE: Wire colors may differ from the illustration but should be connected in the same paths.



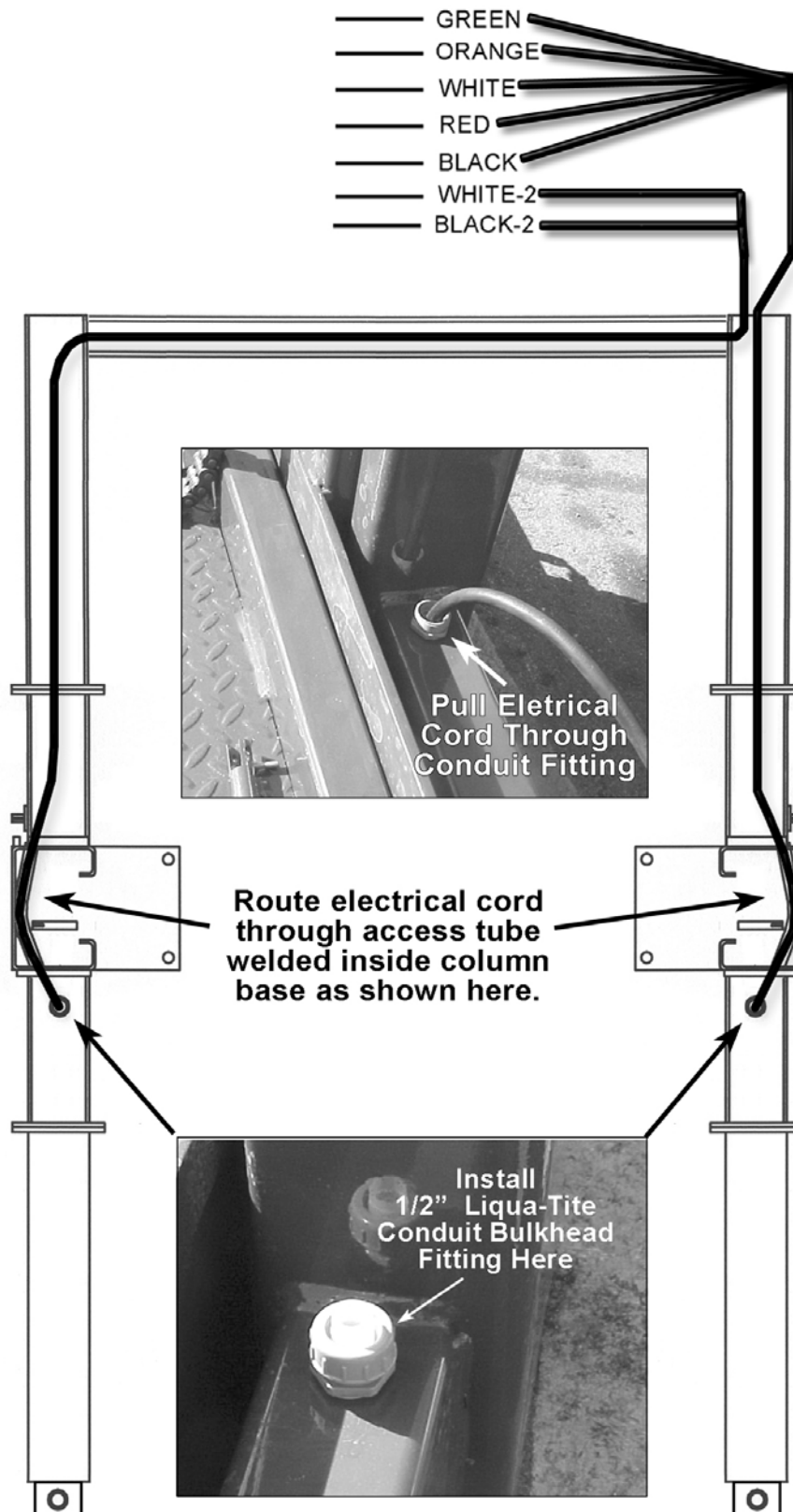
**⚠ DANGER**

Have a certified electrician run 208 - 230 volt single phase 60 HZ power supply to power unit.

( If you ordered optional three phase power refer to the data plate found on the motor for proper power supply. ) Be sure to size wire for a 25 amp circuit. This lift must be grounded while in use to protect the operator from electric shock.

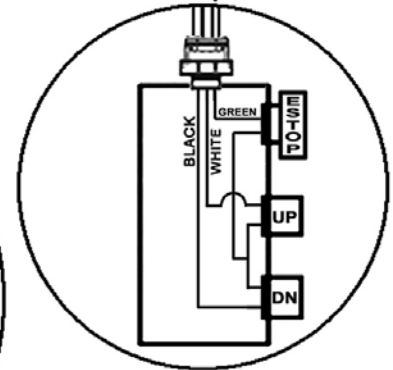
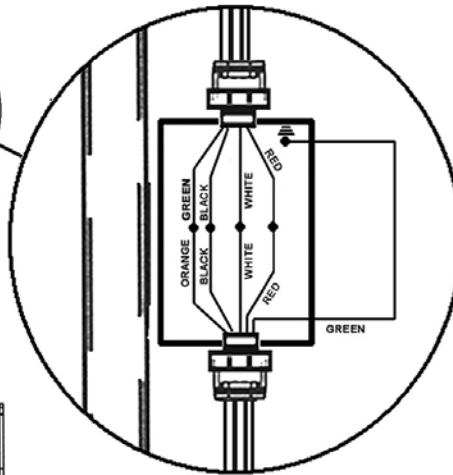
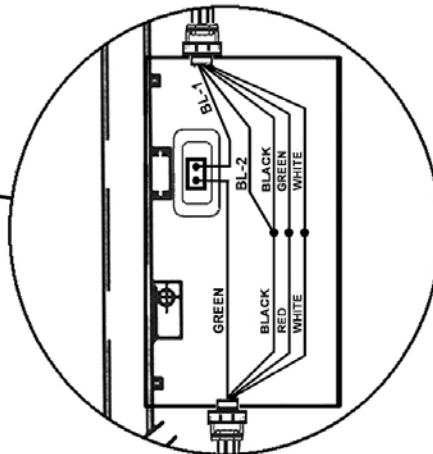
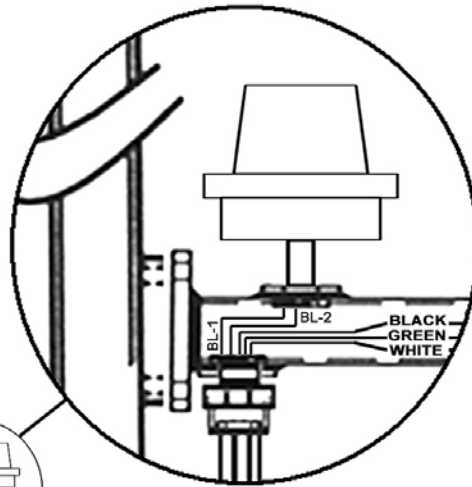
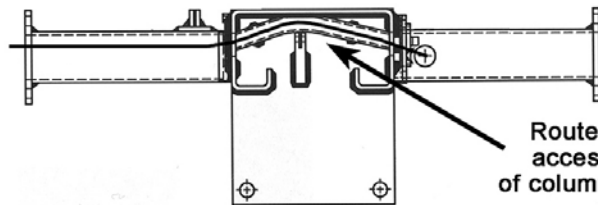
The power unit used on this lift contains high voltage. Disconnect power at the receptacle before performing any electrical repairs.

# ELECTRICAL CORD ROUTING



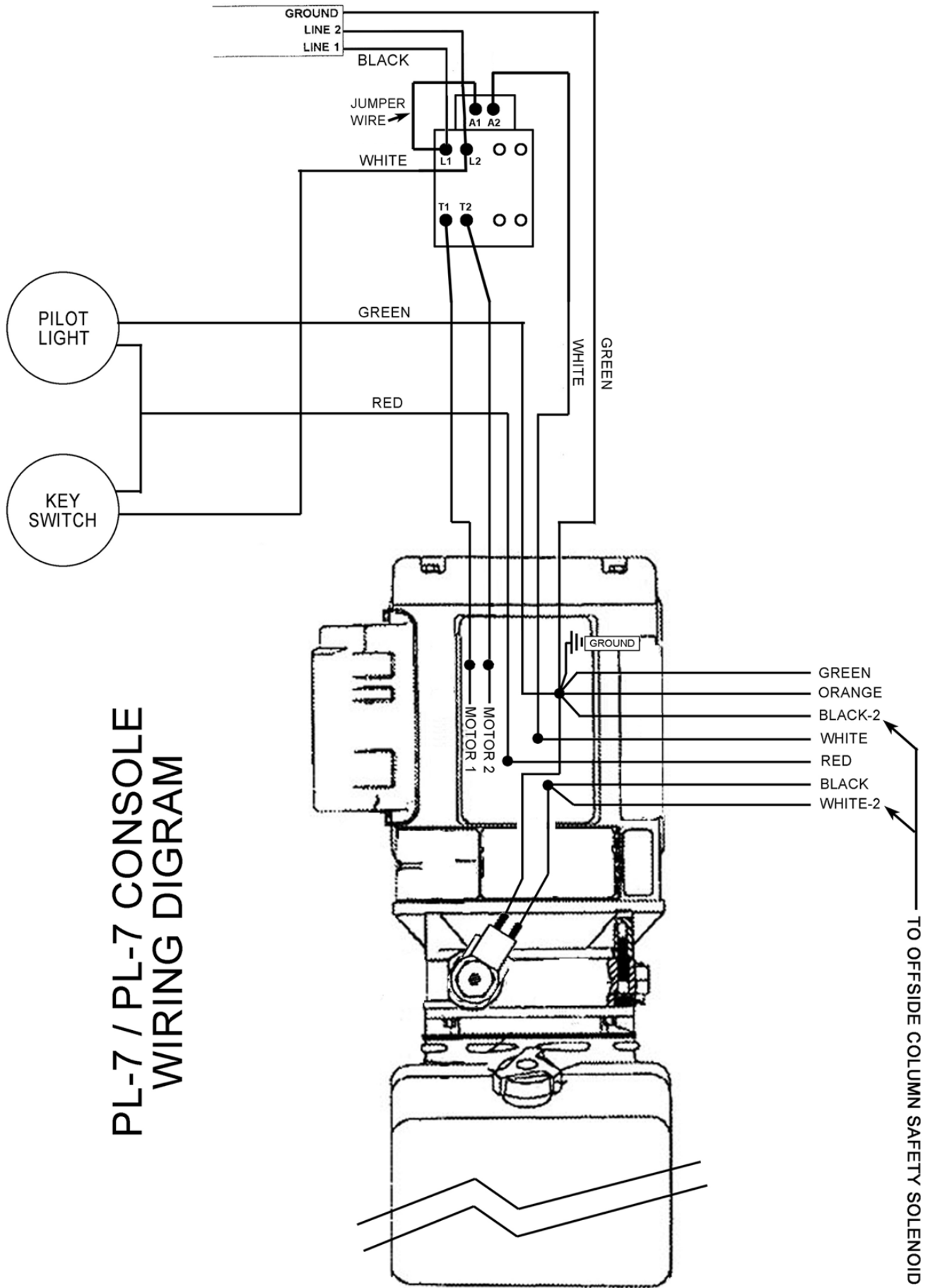
# CONTROL COLUMN WIRING DIAGRAM

ORANGE  
BLACK  
WHITE  
RED  
GREEN



**NOTE:**  
Route wiring through column base tubes **PRIOR** to mounting front and rear leg supports in place.

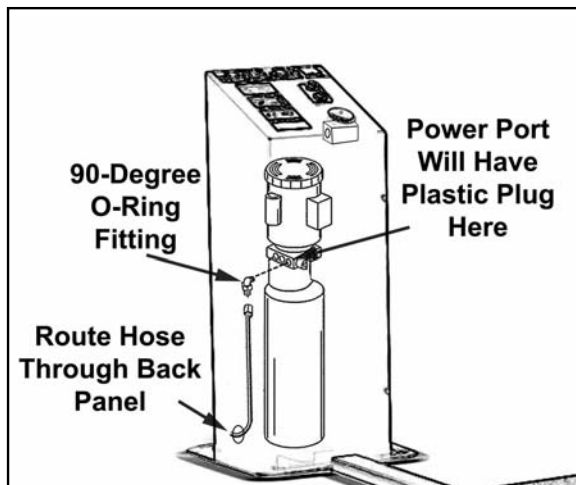
# PL-7 / PL-7 CONSOLE WIRING DIGRAM



## STEP SIXTEEN

( Power Console / Hose Connection )

1. Remove the front panel cover on the power unit.
2. Route the hydraulic hose through the hole at the back of the power console.
3. Connect the hydraulic hose to the power unit fitting as shown below. It is not necessary to use teflon tape on JIC fittings. **DO NOT OVERTIGHTEN.**



## STEP SEVENTEEN

( Lift Start Up )

1. Make sure the power unit reservoir is full with 15 quarts of 10-WT hydraulic oil or Dexron-III automatic transmission fluid.
2. Lubricate all friction points on the lift with a 90-WT Gear Oil.
3. Test the power unit by depressing the UP switch. If the motor sounds like it is operating properly, raise lift and check all hose connections for leaks. **IF MOTOR GETS HOT OR SOUNDS PECULIAR, STOP IMMEDIATELY AND RE-CHECK ELECTRICAL CONNECTIONS.**
4. Once the lift starts to raise, simultaneously press the power unit lowering handle at the same time you are pressing the raise button. This will allow any air trapped in the cylinder and lines to escape and vent into the fluid reservoir.

5. Raise the lift until it is approximately 36" off the ground. At this time place support stands under the platform(s) to safely support the lift during the following procedure(s).

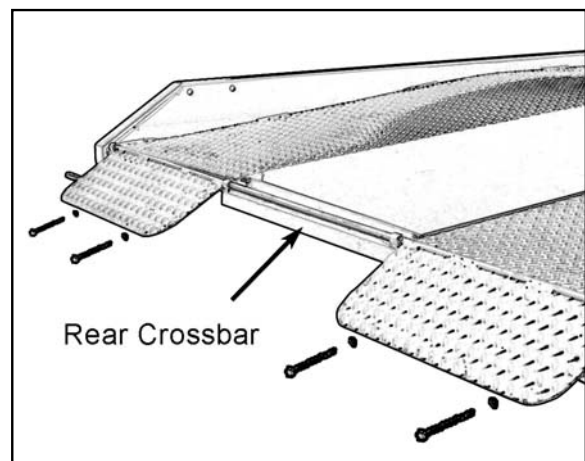
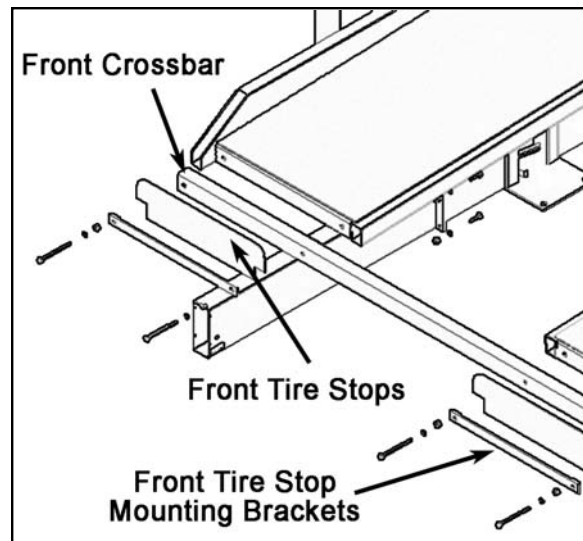


Because the lift is not raised high enough to reach the first safety lock position, **DO NOT** work on or near lift until support stands are in place to support the platform(s). Always ensure support stands and/or the safeties are engaged before any attempt is made to work on or near the lift/vehicle.

## STEP EIGHTEEN

(Attaching the Front and Rear Crossbars )

1. Attach the Front and Rear Crossbars as shown below using the 1/2" -13 x 5-1/2" hex bolts **FOR THE FRONT** and the 1/2" -13 x 5" hex bolts **FOR THE REAR**, lock washers and nuts.





# STEP NINETEEN

( Final Assembly )

1. Install the remaining 3/4" hex bolts to the underside of the lift platforms where the side rails of the decks attach to the lift carriage.

2. Tighten all platform bolts securely.

3. Tighten the chain adjusting nuts on the top of each column until the chains are tight and equal tension. The nylon cable nuts **MUST** be tightened on each end until there is at least 1/4" of threads through the nylon end of the nut.

## NOTE:

There will be some initial stretching of the chains in the beginning. It will be necessary to re-adjust the chains a week after first use, then every three to six months thereafter.



Before lowering the lift you **MUST** raise the lift at least 2" in order to clear the safety locks. Failure to do so may cause one side of the lift to "hang up" on descent making the lift unstable and may cause personal injury or death.

4. Run the lift up and down a few times to insure that the locks are engaging uniformly and that the safety release mechanisms are functioning properly. Re-adjust if necessary.

5. Drive a vehicle onto the lift making sure to set the emergency brake before exiting the vehicle.

6. Set the rear wheel chocks. Run the lift up and down two times with a vehicle to ensure that the locks are engaging uniformly and that the safety release mechanisms are functioning properly. Re-adjust if necessary.

7. Install the safety cover lids after checking locks for proper operation.

## POST INSTALLATION CHECKLIST

"Columns Properly Shimmed And Stable

"Anchor Bolts Tightened ( If anchored )

"Pivot / Roller Pins Properly Attached

"Electric Power Supply Confirmed

"Chains Adjusted Properly

"Safety Locks Functioning Properly

"Check For Hydraulic Leaks

"Oil Level

"Lubrication of Critical Components

"Check For Overhead Obstructions

"Platforms Level

"All Screws, Bolts, and Pins Secured

"Surrounding Area Clean

"Operation, Maintenance and Safety Manuals on Site

## OPERATION:

### To Raise Lift;

"Position vehicle as far forward on the lift as possible.

"Set parking brake and rear wheel chock to hold vehicle in position.

"Before raising vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances.

"Raise the lift to the desired height by pressing the UP button.

"Make sure safeties are engaged **BEFORE** ENTERING work area.

### To Lower Lift;

"Raise the lift off the safety locks by pressing the UP button on the power unit. Make sure you raise the lift by at least two inches to allow adequate clearance for the locks to clear.

"Press the DOWN button and HOLD until the lift has descended completely.



When lowering the lift **PAY CAREFUL ATTENTION** that all personnel and vehicles are clear. **ALWAYS** keep a visual line of site on the lift **AT ALL TIMES**.

**ALWAYS** make sure that the **LOCKS** are disengaged fully before lowering the lift. If one of the locks inadvertently locks on descent the lift and/or vehicle may disrupt causing personal injury or death.

## **Weekly Maintenance**

- "Lubricate all rollers with general purpose oil or WD-40.
- "Check all cable connections, bolts and pins to insure proper mounting.
- "Lubricate safety lock pivot points with general purpose oil or WD-40.

## **Monthly Maintenance**

- "Check safety locks to insure they are in good operating condition.
- "Check all cables for excessive signs of wear
- "Make a visual inspection of ALL MOVING PARTS and check for excessive signs of wear
- "Replace ALL FAULTY PARTS before lift is put back into operation.

## **WARNING!**

- "**NEVER EXCEED THE RATED CAPACITY** of lift.
- "**DO NOT USE LIFT** if any component is found to be defective or worn.
- "**NEVER OPERATE LIFT** with any person or equipment below.
- "**ALWAYS STAND CLEAR** of lift when lowering or raising.
- "**NEVER OPERATE LIFT** with any person or equipment below.
- "**ALWAYS INSURE SAFETY LOCKS ARE ENGAGED** before entering work area.
- "**NEVER LEAVE LIFT IN ELEVATED CONDITION** unless all four safety locks are engaged.