



NT-9 Installation Manual



ATTENTION

- 1. Lubricate all four corners of both columns. A good clean grease works the best. You must check this every 90 days. Good lubrication is vital to the long term keep of you your lift.**
- 2. There are eight rollers on each carriage. Spray all sixteen rollers with WD-40 or a good quality spray lubricant. As best as possible, try to spray the center of the rollers where they connect to the carriage.**
- 3. If you are not familiar with electrical hooks seek professional help. Check inside the switch box to make sure which wire is ground and read the plate on the outside of the motor to make sure you have the right voltage motor. You should have a 220 volt motor.**
- 4. Do not over tighten the hydraulic fittings. This will cause leakage and will not be covered under warranty.**

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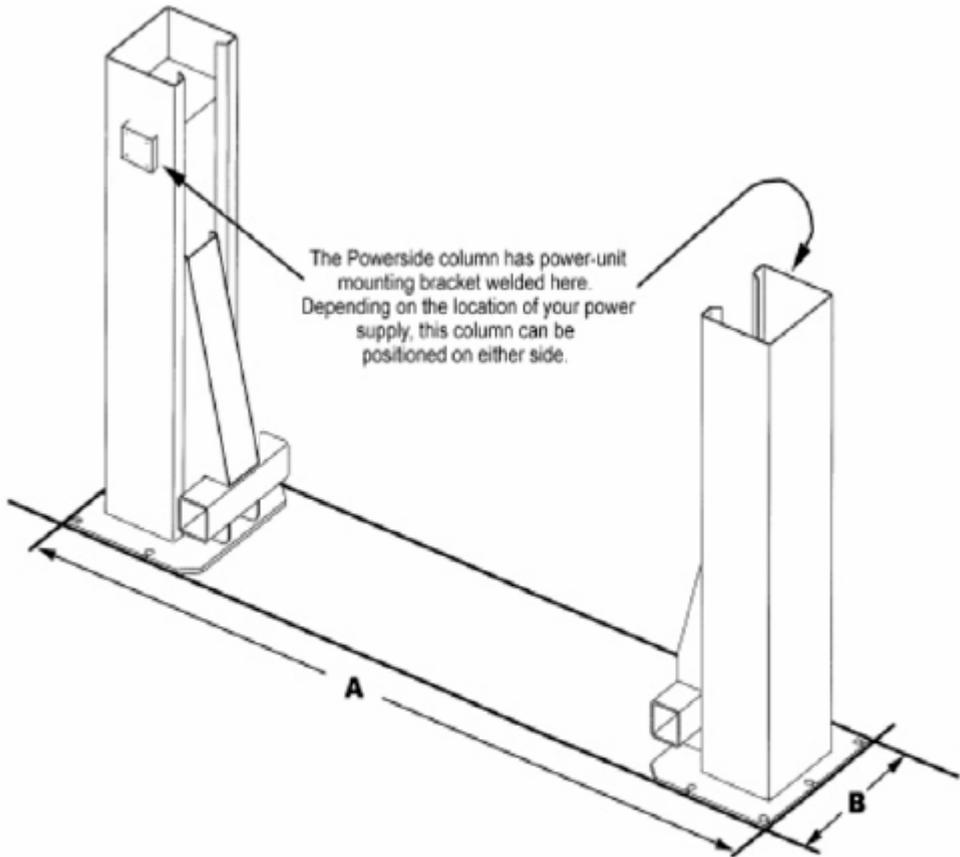
INSTALLATION INSTRUCTIONS

Choosing A Location

- Use architects' plans when available. See Floor Layout

Determine the entry end of the bay area and locate the lift center line 96" from any obstruction front or rear.

- **The Steel Reinforced Concrete** floor must be level, have a *minimum* thickness of 4 inches, and retain a *commercial rating* of 3500 psi. The concrete **must** be cured for a *minimum of 28 days*.
- **Before making a Final Decision**, consider the amount of workday traffic flowing in and around the location you have chosen. Also consider the amount of room out front of the lift for a workbench or diagnostic equipment. There may also be some future building plans to consider. Are you satisfied with your selection?

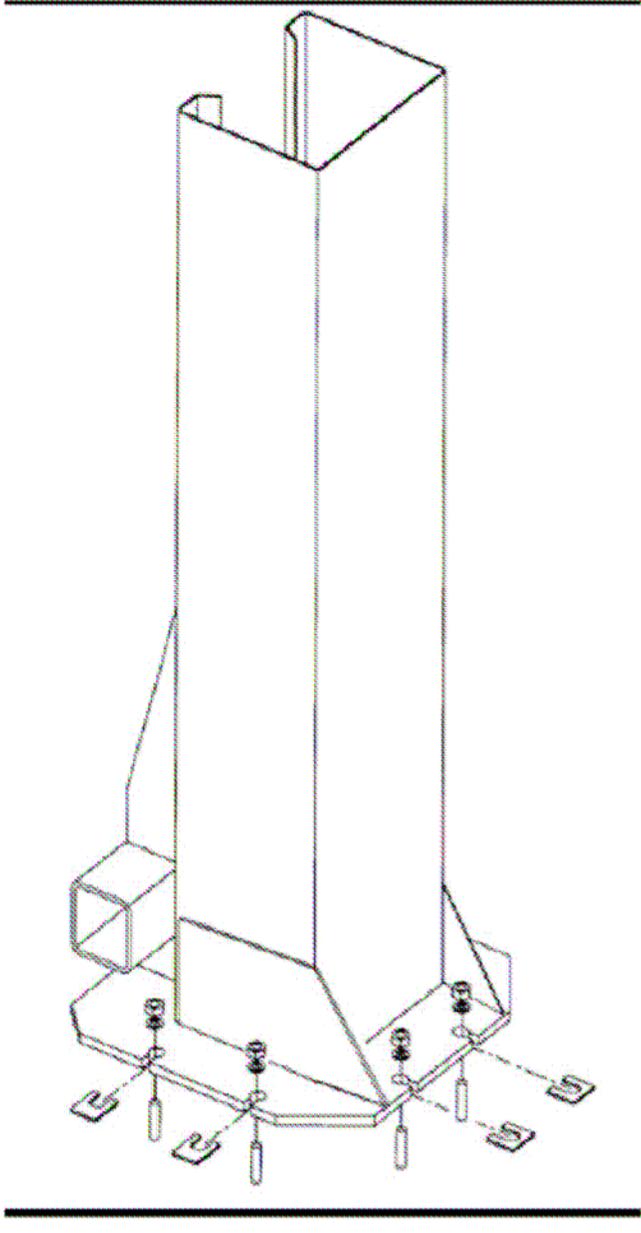


1. There are numerous blends and mixes and additives these days for concrete. All of these work well when used in the proper application. However, years of experience have shown that nothing beats a properly cured, steel reinforced concrete slab for this application. Another thing to watch is additives that claim to harden the concrete faster or reduce the cure time. Again, these things have their place, but not in this application! ***A steel rod or mesh reinforced slab cured 28-30 days with the slab kept properly hydrated gives the best results.***
2. Checking bolts for tightness to some people means that once a week they grab a wrench and go around yanking a quarter of a turn on every nut and bolt they see. This is, of course, not the proper way of handling any bolt, ***especially*** the stress anchors used to anchor your lift. ***When the anchors are installed, they must be tightened down.*** After a period of time, they will loosen up some. This is normal. When checking the anchors, just put a wrench on them and “feel of them” or apply a small amount of torque to the bolt. If it is tight, it is good to go. If it is loose, get a wrench and re-tighten them.
3. The lift is not designed for an outdoor installation because of the possible damage and degradation to the hydraulics and the electrical components caused by direct exposure to the elements. If the unit is installed in a building or outbuilding with a floor that is anything other than the recommended concrete floor, a pad can be poured. The size and construction of the pad can vary depending on the soil conditions and the local weather conditions. It is recommended that each of these situations be handled separately by a local engineer.
4. Never place a lift in a pit or depression in a garage area or any environment where gasoline is around. Gasoline fumes tend to gather at the floor and low areas, so the lift must be mounted on the main floor of the building and not in the basement or a pit.
5. Always remember that your lift is rated at 9000 pounds. This means that the lift will safely and reliably lift a load of 9000 pounds as long as that load is evenly distributed on all four arms. If the load is offset or unevenly distributed, then one post can actually be operating at a load greater than 9000 and the lift can be overloaded with less than the rated load. So the lift load rating is ***9000 pounds or 2250 pounds per arm.***

DO NOT DRILL HOLES IN FLOOR AND ATTEMPT TO ANCHOR YOUR LIFT UNTIL YOU HAVE COMPLETELY ASSEMBLED THE LIFT. WE ARE NOT RESPONSIBLE FOR A MISTAKE IN MEASURING DIMENSIONS IF THIS ORDER IS NOT FOLLOWED

Positioning the Post (Columns)

1. Starting with the power side column, drill the concrete with a $\frac{3}{4}$ " concrete bit at least $4\frac{1}{2}$ " deep, do not ream the hole with the drill or allow the drill to wobble as this will enlarge the hole and reduce the holding power of the anchors, making the lift unsafe. Start at hole 1, be careful not to move the column. Drop a bolt into hole 1 (to help maintain alignment do not force the bolt down at this time), check the column alignment to the 90° chalk line. Drill a hole at hole on the other side of column, drop a bolt into hole 2, this should help prevent movement of the column. Drill the remaining 4 holes on this column.
2. Remove the bolts you dropped into the holes and clear all dust from all the holes and from under column base plate.
3. Assemble the washers and nuts onto each anchor, ensuring that the thread on the anchor is flush to the top of the nut, drop a bolt into each hole and tap down until the washer is about $\frac{1}{2}$ " above the base plate.
4. Roughly level column using shims (we do not furnish shims) as necessary under the base plate, when the column is plumb, tap down all bolts until the washers on the bolts contact the base plate. Tighten the nuts 2-3 turns and re-check the level, loosen, re-shim and retighten as necessary until the column is tight and dead plumb, it is very important that the column be plumb.
5. Measure the distance between the closest corners of the columns as shown on page 3, the distance between the top and the bottom of the columns at this point must be the same. Wiggle the loose column until the distance between the two columns is the same to and bottom (parallel).
6. Do not drill the offside column at this time. This done after the hose and cables are attached.
7. When you plumb this column it must only be plumbed front to back as the distance between the columns must be the same top and bottom.



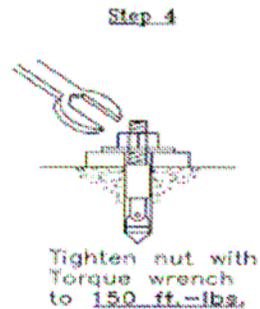
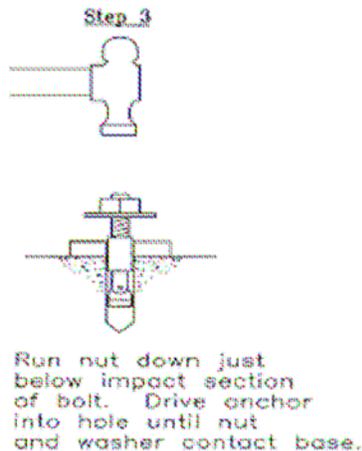
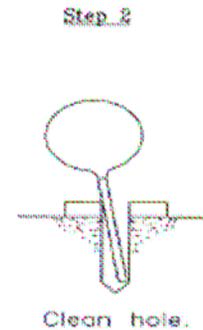
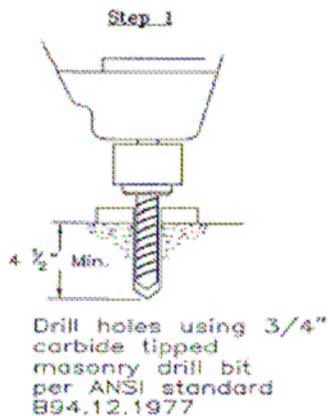
Drilling and Anchoring

Blow all of the dust and debris from the holes, then clean around the openings with a wire brush. A clean hole will improve the prospect of solid anchoring.

To install Anchor:

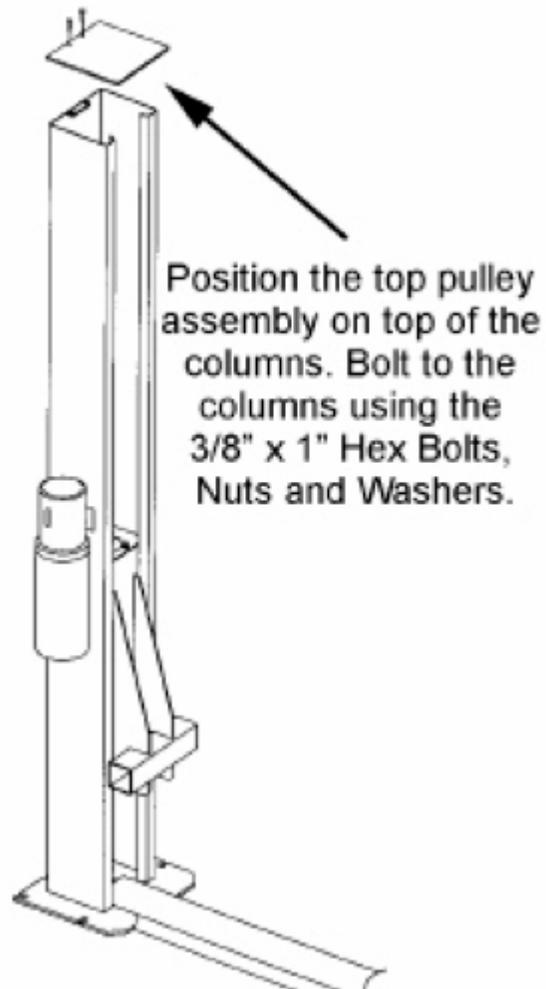
- a. Assemble the washer and nut onto the anchor bolt with nut just below impact section of bolt.
- b. With a hammer, *carefully* tap the anchor bolt into the concrete until the washer is resting on the base of the column. **DO NOT DAMAGE THE NUT OR THREADS!**
- c. Before tightening the nuts, level and plumb the columns, using the shims provided. **Note:** If more than 1/2" of shims is required to level the post, **Do Not Use the Anchors supplied with this lift.**
- d. When columns are level and plumb, tighten the nuts. **NOTE: NEVER USE AN IMPACT WRENCH TO TIGHTEN ANCHOR BOLTS!**

ANCHORING INSTRUCTIONS



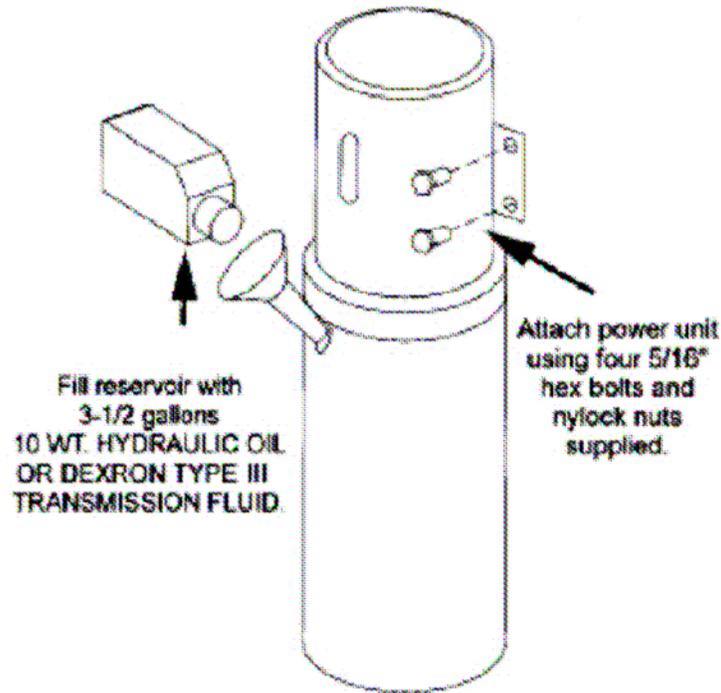
Installing Top Plate Assembly

Lift top plate into position on top of the columns. Bolt them to the columns using the 3/8" x 1" Hex Bolts, Nuts and Washers. See figure



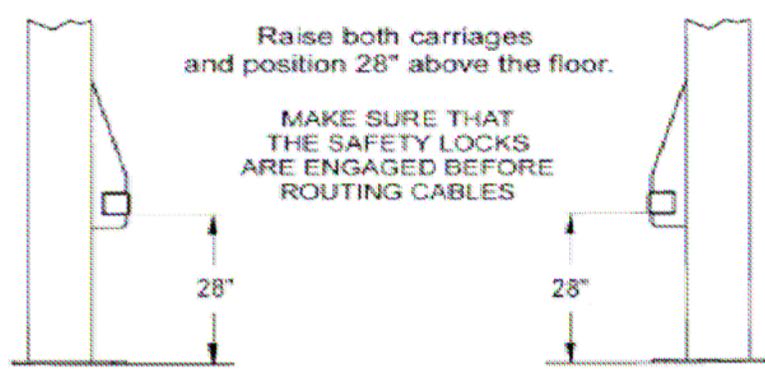
Installing Power Unit

Attach the power unit onto the powerside column using four 5/16" Hex Bolts and Nylock Nuts supplied. Fill the reservoir with 10 WT. hydraulic oil or Dextron Type III ATF. Make sure that the funnel you use is clean of debris.

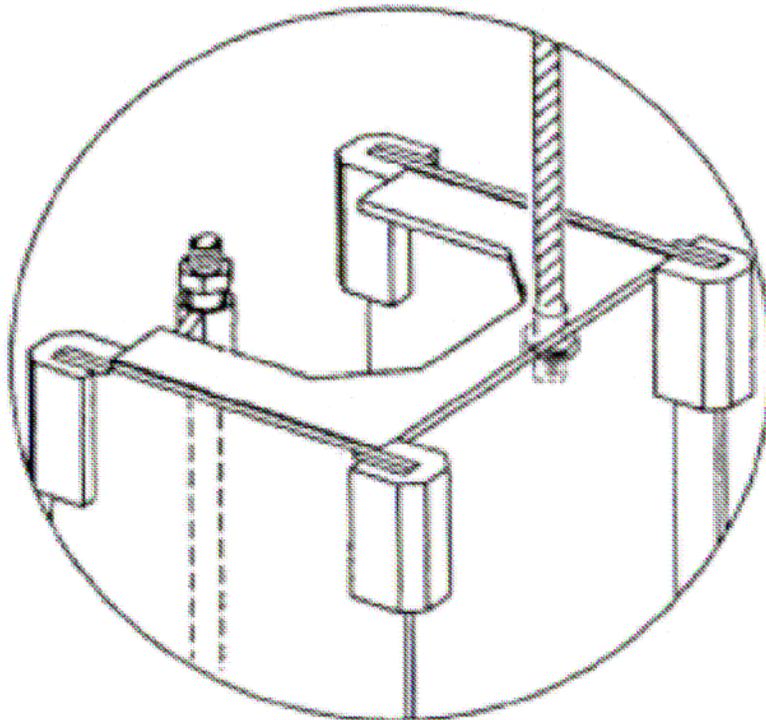


Installing Equalizer Cables

Raise and lock each carriage approximately 28" above the ground.



- Make sure the safety locks holding each carriage are fully engaged before attempting to route the equalizer cables. Carriages must be equal height from the floor before continuing.
- Attach one cable to the carriage and run around the pulley on the bottom then going across to the other column along the floor and around the bottom pulley and up the column around the top pulley and down to the top of the carriage..
- Install the second cable in the same way, ensuring that both cables are not twisted, rubbing, or otherwise distorted or jammed.
- Attach cables to carriages using the nuts supplied. Both nuts go on top.
- Re-check cable routing to ensure that the cables are not bound anywhere and that both cables are parallel above and below the carriages as well as through the cross bar. If adjustment is needed, loosen the cable and correct the misalignment.
- Tighten both cables until they are taught, like the string on a musical instrument. Check that both carriages are still on the safety stops and that both cables have equal tension, if one carriage is off a stop, loosen the cable on this carriage or tighten the cable on the opposite carriage.

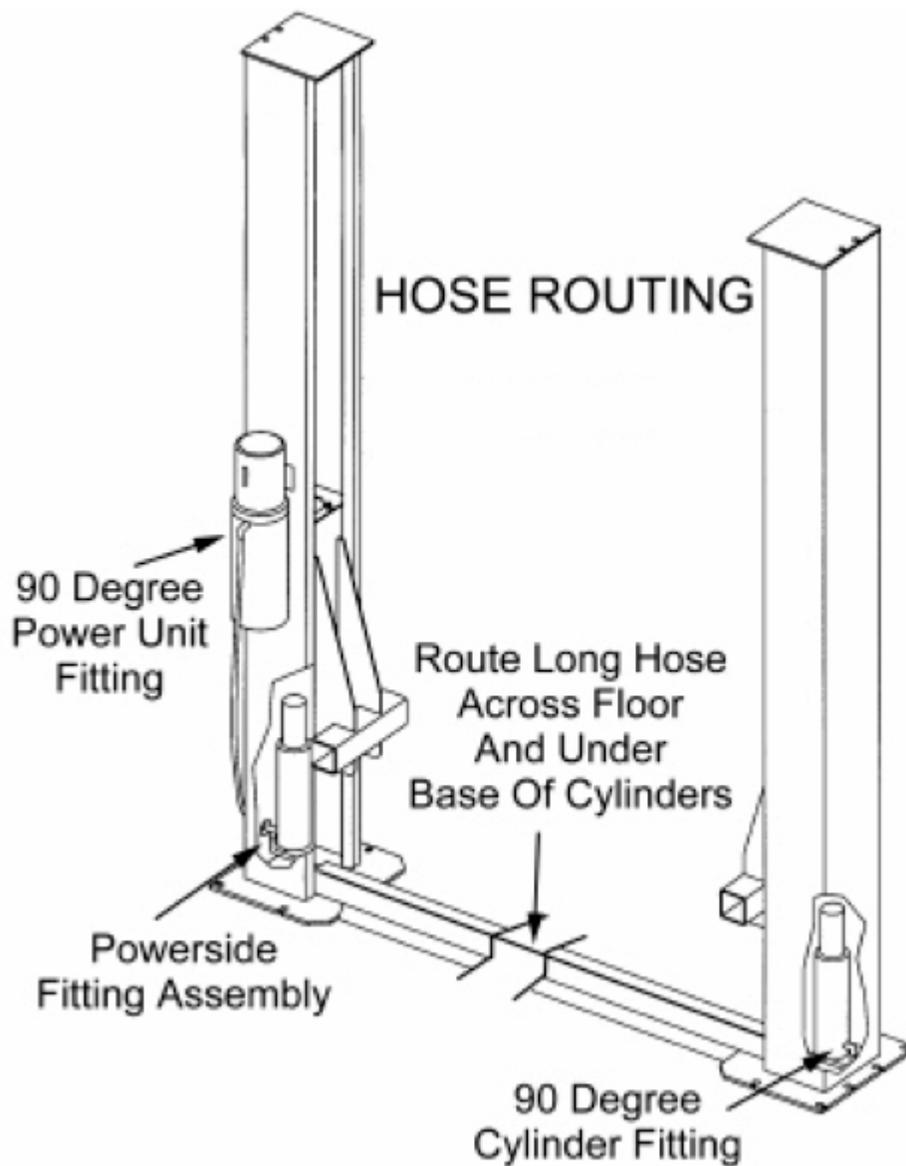


Installing Hydraulic Lines

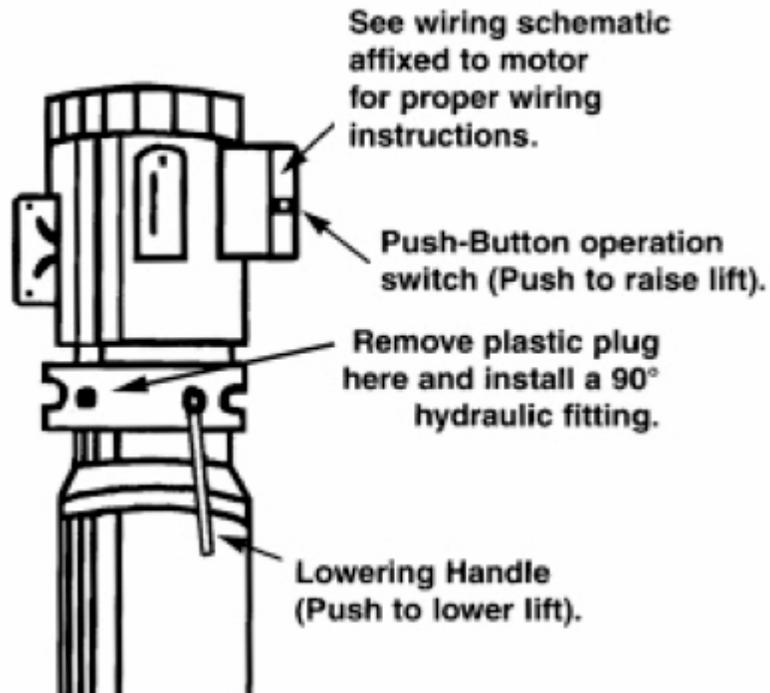
Install the hydraulic lines as shown below making sure to keep the hoses clean and free of debris.

Caution

When running hoses through the posts, be sure to route them through the retaining rings that are welded inside each post. Make sure that the hose is clear of any moving parts. It may be necessary to tie hose clear by using nylon tie or wire. Failure to keep hydraulic lines clear may result in hydraulic line failure which may result in damage or personal harm.



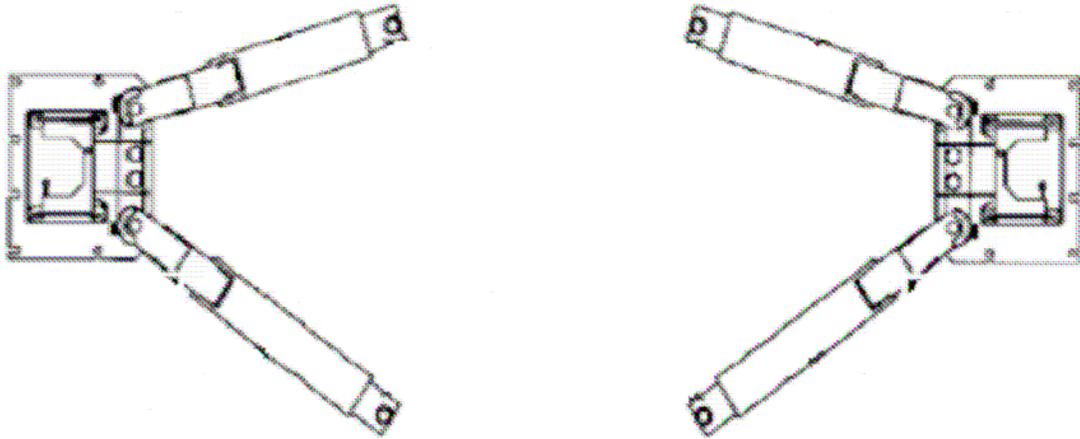
Once hoses are routed, connect to power unit and test for leaks.
NOTE: Do not over-tighten hydraulic fittings.



Anchor offside leg at this point. Use same procedure used to anchor mainside leg.

Installing lifting arms.

Install swing arms as described below. Grease arm pivot pins prior to installation.



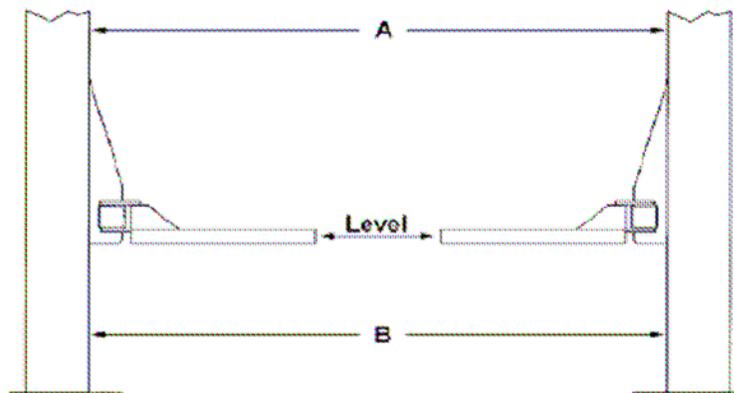
▲ WARNING

IMPORTANT LEVELING INSTRUCTIONS

Before operating your lift, check to make sure that both "A" and "B" measurements are EQUAL.

The swing arms must be level before operation.

If your swing arms are not level shim the columns as required.



WARNINGS

1. **If any problems are seen with the lift, do not use until the problem(s) are resolved.**
2. **If the anchor bolts are loose or if the concrete is cracked or broken around the anchor bolts, do not use the lift.**
3. **Never exceed the rated capacity of the lift.**
4. **Always ensure the safety stops are engaged before any attempt is made to work on, under or near the vehicle.**
5. **Never leave the lift up unless the safety stops are engaged.**
6. **Never let an untrained person operate the lift.**
7. **Never operate the lift with anyone in, under, or around the work area.**
8. **Never operate the lift with a person or animal in the vehicle.**
9. **Check the trunk or other storage areas for load that would affect the vehicle balance. Never operate the lift unless all four arms are fully engaged on the vehicle, as each arm is no stronger than ¼ of the rated lifting capacity.**

Maintenance

Daily Maintenance

1. Walk around the lift at the start of each shift to look for damaged or bent parts on the lift, oil leaks, damaged concrete around the floor anchors or anything else that may interfere with the safe operation of the lift.
2. Raise the lift about 12", check for safe operation of swing arm restraints, look for vibration or bouncing when lifting, if seen go to trouble shooting chart, Figure X. Lower lift to ground and continue use, only if no malfunctions were found.

Monthly Maintenance

1. Raise lift to mid point of travel and lower onto safety stops.
2. Check both safeties are fully engaged and functioning correctly.
3. Check all cable connections, bolts, pins, lift pads, and pad extensions to ensure proper fit and tightness. Replace or repair as needed. If excess looseness in arm pivot pins is seen, lift has been overloaded and is unsafe. Stop using the lift.
4. Check for equal tension on synchronizing cables and adjust as needed. (See Installation instructions Step Five- points seven and eight).
5. Lubricate inside of columns with EP-2 grease.
6. Lubricate cables with a light penetrating oil.
7. Check to see if column are still in alignment and plumb, re-shim as needed.
8. Check all anchor bolts for tightness and tighten if needed.
While raising the lift, check overhead cutoff switch for proper operation. Repair as needed.

Operation

Raising the Lift

1. Read and understand safety items in this manual.
2. Always lift a vehicle using the manufacturers lifting points.
3. Position vehicle centered between columns such that the center of gravity of the vehicle is back of column center line 29" as shown in Figure X.
4. Adjust the swing arms to the vehicle manufacturers lift points.
5. Use pad extensions if needed to keep vehicle level.
6. Raise lift by pushing button on the power unit until the pad contacts the vehicle. Check to see if all pads contact the vehicle at about the same time and are making contact at the recommended lifting points, lower lift and re-adjust swing arms if needed. See step five above if a large difference in contact is seen.
7. Raise the vehicle a small amount and check to ensure the vehicle is secure on the lift pads and that the vehicle is balanced.
8. Raise vehicle to the work height by pushing button on the power unit.
9. Lower onto safety stops by pushing the release lever on the power pack. Always lower the lift onto the safety stops before working on, under or near the vehicle.

Lowering the lift

1. Ensure the area under the vehicle is clear of equipment, tools, personnel or other objects that may interfere with the vehicle when on the ground.
2. Raise the lift a small amount by pushing the button on the power unit, to clear the safety stops.
3. Push the safety stop release lever to fully disengage the safety stops
4. Lower the vehicle by pushing the release lever on the power unit while holding the safety stop release lever. When the lift is fully lowered, swing lifting arms out from under the vehicles and remove the pads and extensions if used. Never drive over the lift arms or pads. Ensure the position of arms allows for the unobstructed exit of the vehicle