APlusLift

INSTALLATION AND OPERATION MANUAL

MODELS: APlusLift Falcon TR-10C / APlusLift Falcon TR-10C-EXT

2 Post Automotive Lift

Maximum Lifting Capacity 10,000 lbs. / 4525 kg

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

Keep this operation manual near the machine at all times. Make sure all users read this manual.

⚠WARNING:

INSTRUCTIONS TO READ THE MANUAL(S) THOROUGHLY BEFORE INSTALLING, OPERATING, SERVICING, OR MAINTAINING THE LIFT.

PLEASE **READ THE ENTIRE CONTENTS OF THIS MANUAL AND THE ANSI/ALI ALIS, SAFETY REQUIREMENTS FOR INSTALLATION AND SERVICE FOR AUTOMITIVE LIFTS LITERATURE**, PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING WITH THE LIFT INSTALLATION AND OPERATION YOU AGREE THAT YOU FULLY UNDERSTAND THE FULL CONTENTS OF THIS MANUAL. THIS MANUAL MUST BE READ BY ALL USERS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

ORIGINAL INSTRUCTIONS IN ENGLISH LANGUAGE

RECEIVING

The shipment should be thoroughly inspected as soon as it is received. The signed Bill of Lading is acknowledgement by the shipping carrier as receipt of this product as listed in your invoice as being in a good condition of shipment. If any of these goods listed on this Bill of Lading are missing or damaged, do not accept goods until the shipping carrier makes a notation on the freight bill of the missing or damaged goods. Do this for your own protection.

⚠WARNING:

Questions, problems, missing parts? Before returning to your retailer, call our customer service department at 800-616-9618 or 206-289-0814 (text)

Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

READ THIS ENTIRE MANUAL BEFORE INSTALLATION & OPERATION BEGINS

IMPORTANT

Before You Begin Register This Product.
For future reference, record the model name, model number, serial numbers, date of manufacture and purchase date of this product. You can find this information on the product.

Model Name	
Model Number	
ALI Gold Label Serial #	
Lift Serial #	
Date of Manufacture	
Date of Purchase	
Power Unit Model #	
Power Unit Date of Mfg.	
Power Unit Serial #	

Save the receipt, warranty and these instructions. **This information is required when calling for parts or warranty issues. Warranty is non-transferable. To be able to make a claim under a written warranty, the manufacturer requires you to register the product by filling in and returning a warranty card or by registering the product online at www.apluslift.com**

TO VALIDATE YOUR LIFT WARRANTY
Register online before first use at www.apluslift.com

SAVE THESE INSTRUCTIONS

OWNER / USER RESPONSIBILITY

DO NOT OPERATE OR REPAIR THIS PRODUCT WITHOUT READING THIS MANUAL.
Read and follow the safety instructions. Keep Instructions readily available for operators. Make certain all operators are properly trained and understand how to safely and correctly operate the product. By proceeding you agree that you fully understand and comprehend the full contents of this manual. Failure to operate this product as intended may cause injury or death. The manufacturer is not responsible for any damages or injury caused by improper use or neglect. Allow product operation only with all parts in place and operating safely. Use only genuine replacement parts. Service and maintain the product only with authorized or approved replacement parts; negligence will make the product unsafe for use and will void the warranty. Carefully inspect the product on a regular basis and perform all maintenance as required. Store these instructions in a protected dry location. Keep all decals on the product clean and visible. Do not modify and/or use for any application other than that for which this product was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted the distributor or manufacturer to determine if it can or should be performed on the product.

SHIPPING DAMAGE CLAIMS

Once the equipment/product has been shipped, bill of sale passes to the Purchaser. Materials damaged in shipment claims must be made by the Purchaser against the Freight Carrier at the time of shipment arrival. Any freight damage must be noted on the freight bill before signing and reported to the freight carrier with a freight claim established. Manufacturer is not responsible for freight claims. Identify the components and check for shortages. If shortages are discovered, please contact the Distributor / Sales Representative in your area for service. It is the customer's responsibility to arrange for unloading of products shipped.

SHIPPING FREIGHT

This item is shipped via "truck freight" (common carrier or flat-bed, not UPS). Truck freight companies do NOT require their drivers to unload shipments. An additional "Lift Gate" fee will apply if the driver unloads the merchandise. The shipping carrier will call and schedule delivery, at which time, you may request a "Lift Gate" (provided the weight and dimensions of the product fits the criteria for lift gate service) and arrange payment with the carrier for that service.

GENERAL SAFETY RULES

 **WARNING: Read and understand all instructions.** Failure to follow all instructions listed below may result in serious injury.

 **CAUTION: Do not allow persons to operate or assemble this product until they have read this manual and have developed a thorough understanding of how the product works.**

 **WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur.** It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be supplied by the operator.

HAZARD DESCRIPTIONS

Use alertness and prudence in a hazardous situation; care; wariness.
Identify the hazard levels used in this manual with the following definitions and signal words:

⚠ **DANGER:**
Immediate hazards which will result in severe liability or exposure to personal injury or death.

⚠ **WARNING:**
Hazards or unsafe practices which could result in severe personal injury or death.

⚠ **CAUTION:**
Hazards or unsafe practices which may result in personal injury, product or property damage.

IMPORTANT INFORMATION:

This lift is designed for indoor use only, and should not be installed in a pit or uneven surface. Manufacturer recommends the floor on which the lift is to be installed must be 6" inch minimum thickness concrete, with a minimum compressive strength of 3000 psi, and reinforced with steel bar, and a minimum edge distance of 8 inches. (Contact your building architect for information before installing on Pre-stressed concrete.)

The lift has specific electrical requirements as described in the Installation Instructions section of this manual. This lift has a minimum ceiling height requirement as described in the Installation Instructions section of this manual. **Failure by the owner to provide the recommended shelter, mounting surface, electrical supply, and ceiling height could result in unsatisfactory lift performance, property damage, or personal injury.**

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using your garage equipment, basic safety precautions should always be followed, including the following:

1. Read all instructions. Study, understand, and follow all instructions before operating this device.
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate equipment, with a damaged cord or if the equipment has been dropped or damaged - until it has been examined by a qualified service person.
4. Do not let a cord hang over the edge of the table, bench, or counter or come in contact, with hot manifolds or moving fan blades.
5. 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 rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
6. Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
7. Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.
8. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
9. Adequate ventilation should be provided when working on operating internal combustion engines.
10. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
11. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
12. Use only as described in this manual. Use only manufacturer's recommended attachments.
13. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
14. To reduce the risk of injury, close supervision is necessary when this product will be used around children. (Pertains to cabinets only.)
15. To reduce the risk of injury, never overload the drawers or shelves. Refer to loading instructions.
16. To reduce the risk of electric shock or fire, never overload receptacles. Refer to markings for the proper load on receptacles.
17. Do not exceed rated capacity.
18. Use only on hard, level surfaces with less than 3 degrees of slope.
19. Do not move or dolly the vehicle while on the lift.
20. Lift only on areas of any vehicle as specified by the vehicle manufacturer.
21. No alterations shall be made to this product.
22. Only attachments and/or adapters supplied by the manufacturer shall be used.
23. Do not get under or allow anyone under the vehicle until it has been supported with auxiliary jack stands on both the front and rear of the vehicle.
24. Center load on lifting arms and saddles prior to lifting.
25. Secure vehicle to ensure no shifting, movement, or tipping will occur when performing maintenance on any vehicle.
26. Verify that safety locks are engaged on the arms and lifting carriages before performing any work.
27. NEVER use lift with a motorcycle, lawn mower, or lawn tractor.
28. Do not use this product for any use other than the manufacturer specified usage. Failure to heed these warnings may result in personal injury and/or property damage. The distributor is not responsible for any damages or injury caused by improper use or neglect.
29. Do not use wood blocks or any other non-approved load sustaining devices or any other non-approved lifting devices for a means of lifting a vehicle, stabilizing, securing, spacing, adding additional height, or load being raised. The manufacturer only warrants loads to be sustained by adapters or accessories validated by the manufacturer. Failure to head these warnings may cause injury or death.
30. Do not adjust power unit pressure relief valve, any tampering will void warranty and may cause catastrophic failure. Failure to head these warnings may result in injury or death.

IMPORTANT SAFETY CONSIDERATIONS

To maintain the product and user safety, the responsibility of the owner is to read and follow these instructions.

- Inspect the product for proper operation and function before each use.
- Do not modify the product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. There are specific applications for which the product was designed.
- Always check for damaged or worn out parts before using the lift. Broken parts will affect the equipment operation. Replace or repair damaged or worn parts immediately.
- Keep instructions readily available for equipment operators.
- Make certain all equipment operators are properly trained; understand how to safely and correctly operate the unit.
- Allow unit operation only with all parts in place and operating properly.
- Use only genuine replacement parts.
- Service and maintain the unit only with authorized or approved replacement parts; negligence will make the product unsafe for use and void the warranty.
- Carefully inspect the unit on a regular basis and perform all maintenance as required.
- Keep all decals on the unit clean and visible.

GENERAL SAFETY INSTRUCTIONS:

Training - Do not allow anyone who has not read this manual, and/or does not understand the requirements to use the product.

Spectators - Do not allow bystanders around the lift or under the load supported. Do not allow anyone in a vehicle while the lift is in use or is supporting a load. Keep all bystanders away from lift when in use.

Operators - Not for use by children or people with reduced mental capacity. Not for use under the influence of drugs or alcohol.

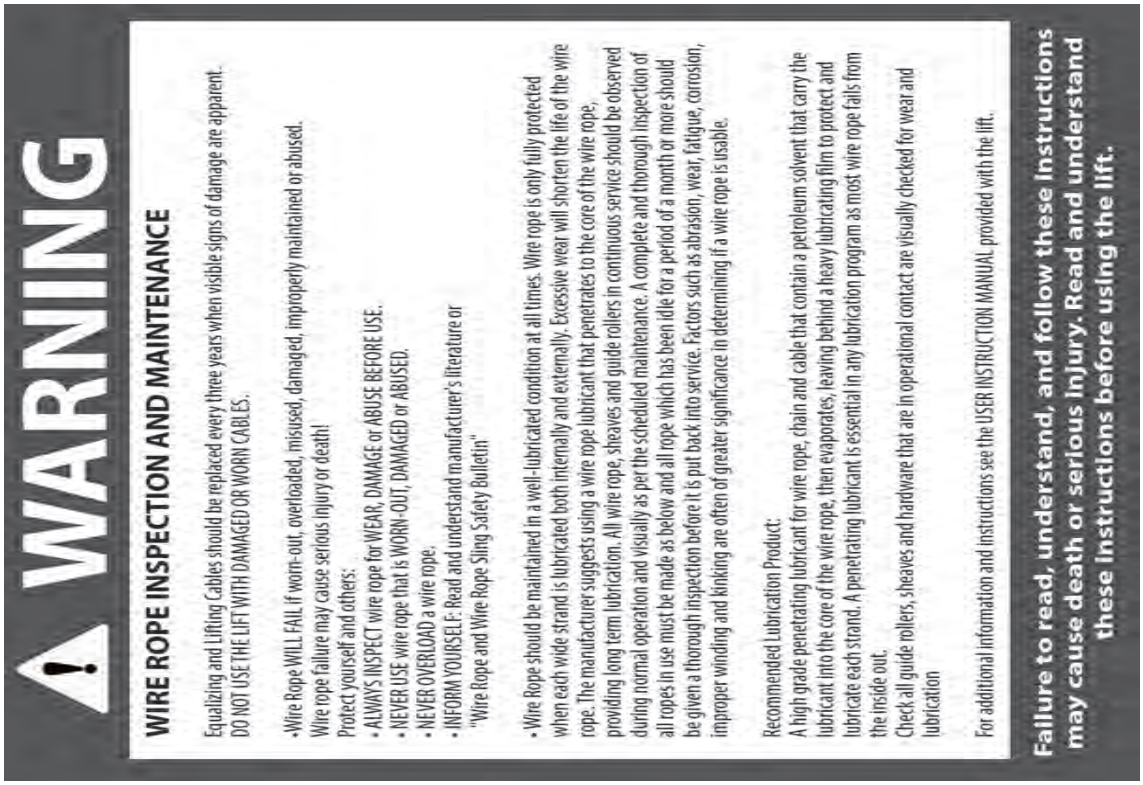
Inspection - Inspect the product carefully before each use. Ensure the product is not damaged, excessively worn, or missing parts. Do not use the lift unless it is properly lubricated. Using a lift that is not in good clean working condition or properly lubricated may cause serious injury.

SAFETY STICKER IDENTIFICATION

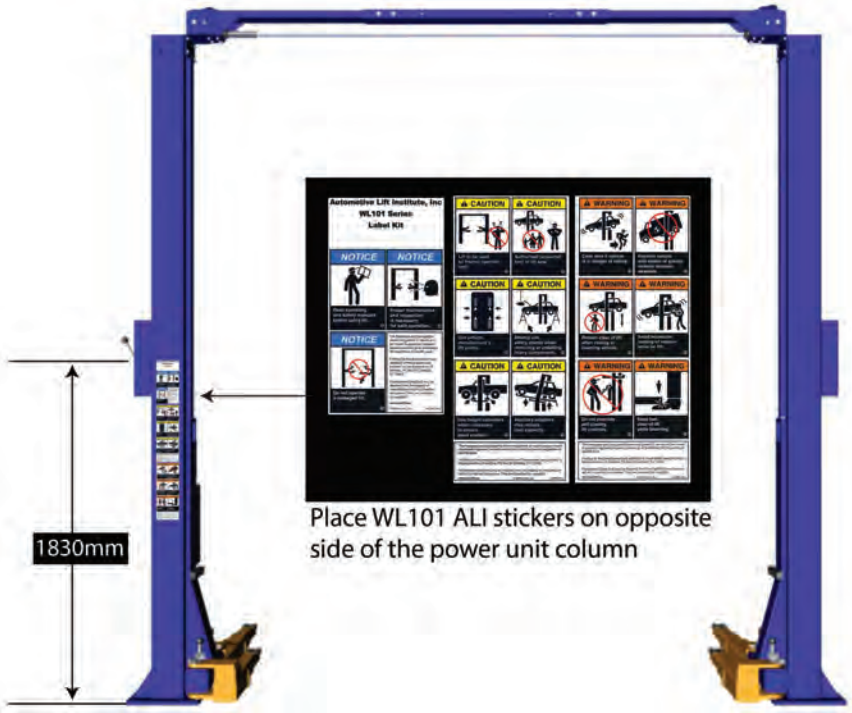
Use care when identifications and markings are on lift. These identifications are put in place to help with your safety and the safety of others. Always use caution when working around vehicle lift. Replace labels if damaged or torn.

WIRE ROPE INSPECTION LABEL

(LABEL TO BE ATTACHED BY MANUFACTURER)

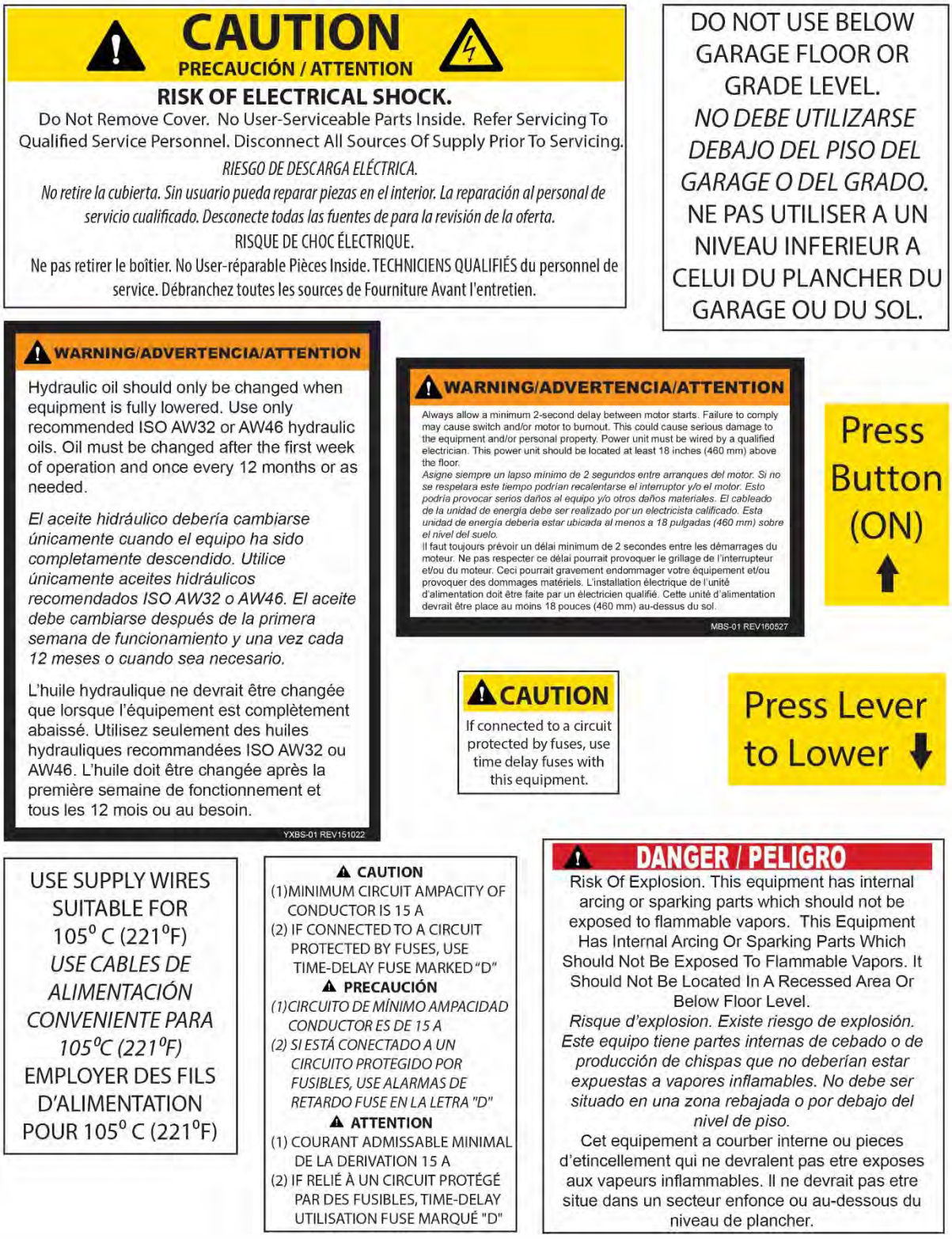


Customer Recommended ALI WL101 Safety Lift Label Location



ANSI/ALI SAFETY WARNING LABELS
(LABEL TO BE ATTACHED BY CUSTOMER)

POWER UNIT WARNING LABELS
(LABEL TO BE ATTACHED BY MANUFACTURER)



AIR PURGE PROCEDURE LABEL
(LABEL TO BE ATTACHED BY MANUFACTURER)

Hydraulic Cylinder Air Purge Procedure

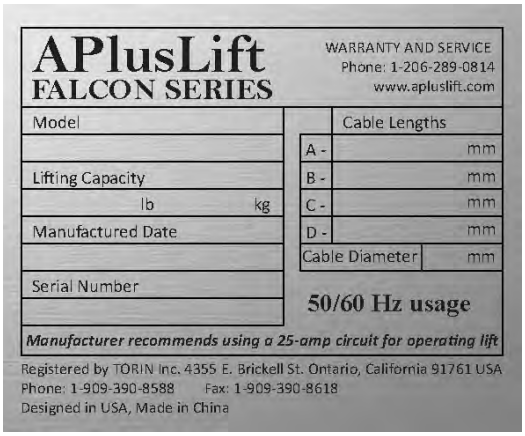
1. Without any weight on the lift raise the cylinders 2 feet off the ground just high enough to clear locking mechanisms. Slowly loosen the bleed screws located at the top of each cylinder. (One or two turns should be all that is needed to remove the air). DO NOT REMOVE BLEED SCREW COMPLETELY.
Listen for air to release and watch for clean fluid to escape from each cylinder.

2. Continue to raise the cylinders one full rotation and lower the lifting arms to an un-locked position 2 feet off the ground. Slowly loosen the bleed screws located at the top of each cylinder. (One or two turns should be all that is needed to remove the air). DO NOT REMOVE BLEED SCREW COMPLETELY.
Listen for air to release and watch for clean fluid to escape from each cylinder.
Repeat steps if air is still in the cylinder.

NOTE: If cylinder continues to shake or vibrate when lifted or lowered repeat steps until trapped air is removed from cylinders. (Use a ladder for safety.)

PINCH POINT LABEL
(LABEL TO BE ATTACHED BY MANUFACTURER)

TCE SERIAL PLATE
(LABEL TO BE ATTACHED BY MANUFACTURER)



TCE T2OH-2 OPTIONAL HEIGHT SERIAL PLATE
(LABEL TO BE ATTACHED BY CUSTOMER)

ANSI/ALI ACCESSORIES, ATTACHMENTS, AND COMPONENTS LABELS
(LABEL TO BE ATTACHED BY CUSTOMER)
(To be place BESIDE ALI GOLD LABEL)

ALI/MET GOLD LABEL
(LABEL TO BE ATTACHED BY MANUFACTURER)

OPERATING INSTRUCTIONS

ONLY AUTHORIZED PERSONNEL ARE TO OPERATE LIFT.
BEFORE OPERATING LIFT READ OPERATING MANUAL AND SAFETY DOCUMENTS SUPPLIED WITH THE LIFT. ONLY TRAINED and AUTHORIZED PERSONNEL should operate the lift. Do not allow customers or unauthorized personnel to operate the lift or remain in the lift area during use.

WARNING THIS MOTOR HAS INTERNAL ARCING AND SPARKING PARTS. TO MINIMIZE THE RISK OF EXPLOSION, DO NOT EXPOSE TO FLAMMABLE VAPORS. Use only recommended ISO AW32 or AW46 hydraulic oils.
Power Unit Motor duty cycle is one full lifting operation 10 minutes, this will include the lifting and lowering time.

OPERATING CONDITIONS: Lift is not intended for outdoor use and has an operating temperature rating between 40°F – 105°F (4°C - 41°C)

DO NOT install on asphalt or other similar unstable surface. Columns are supported only by anchoring to concrete floors. Manufacturer will not be held responsible for any concrete that may not meet slope requirements and will not be responsible for any charges relating to new concrete slabs pouring or leveling or damage.

INSPECT THE LIFT DAILY. Do not operate if potential problems have been identified or lift malfunctions. Do not operate if lift has damaged or broken components. Check all moving parts for any type of damage that may affect misalignment or operation of lift Inspect all anchors bolts and retighten if necessary. Re-torque as needed. See installation manual for instructions.

ALWAYS ensure the safeties are engaged before any attempt is made to work on or near the vehicle.
DO NOT operate the lift while batteries are charging
DO NOT raise/lower only one side of the vehicle
NEVER leave lift in elevated position unless the safeties are engaged.
NEVER operate the lift with any person or equipment below the vehicle.
DO NOT attempt to work on the vehicle or go near vehicle when lift is being raised or lowered.
NEVER exceed the rated lift capacity.

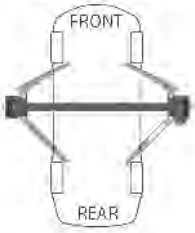
ALWAYS position lifting arms, ramps, adapters and accessories properly out of the way before pulling the vehicle into or out of the bay. Failure to do so could damage the vehicle and/or the lift.

⚠ DANGER:

NEVER lift any vehicle in any manner with less than all four (4) arms. Rated capacity of each lift arm is no greater than one fourth (1/4) of the overall lift capacity.

⚠ DANGER:

Refer to the vehicle manufacturer recommended lifting points, beforelifting any vehicle.



TO RAISE THE LIFT:

1. Adjust the lifting arms so that the vehicle is positioned with the center of gravity midway between the lift pads. (Use truck adapters as needed.)
⚠ **DANGER: NEVER** use the lift pad assemblies without the rubber pads in place.
2. Press the power "on" button.
3. A clicking sound will be heard as the lift raises. These are the carriage locks that will securely hold a vehicle.
4. Once the desired height has been achieved slightly raise the carriage and lift arms just above the last latch position and slowly lower the load on the safety locks.
5. Verify that both Safety Carriage locks have been engaged before beginning work.
6. Use of jack stands or other load supporting devices will help in preventing load shifts. Manufacturer suggests that jack stands or other load supporting devices are used at all times for additional security. Use additional lifting equipment or stands when removing or installing heavy vehicle components.
7. Make sure the vehicles center of gravity is always safe before raising vehicle. Any points of contact on vehicle that are not in good contact with lifting pads or contact with lift should always be double checked. Always make sure the vehicle is secure before lifting using only your vehicle manufacturers' recommended lifting points.

TO LOWER THE LIFT:

6. To lower the lift, first raise the lift to clear the safety latches, press the power "on" button, then pull down the safety release handle to lower the lift. The carriages should now be in the free UN-LOCKED position.
7. Simultaneously hold the Safety Carriage Locks in the UN-LOCKED Position and press the lowering control valve on the power unit.
8. Lower the lift slowly until reach the lowest retracted position.
9. Retract the lifting arms to the shortest position.
10. Place any arm extension adapters on column storage brackets.

⚠ **WARNING:** Questions, problems, missing parts?
Before returning to your retailer, call our customer service department at 1-206-289-0814, 8 a.m.- 5 p.m., PST, Monday-Friday.
Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

GUARANTEE:
With proof of purchase for a period of two years from the date of that purchase, the manufacturer will repair or replace, at its discretion, without charge, any of its products or parts thereof which fail due to a defect in material or workmanship.
FOR FULL DETAILS OF YOUR WARRANTY/GUARANTEE VISIT OUR WEBISTE ONLINE ONLINE AT WWW.APLUSLIFT.COM

INTENDED USE

This two-post car lift is designed to lift and raise light duty vehicles under 10,000-lbs. Our 2 post car lifts offer variable lifting configurations, for unobstructed floor space while repairing vehicles.

TECHNICAL SPECIFICATIONS

Description	US Imperial (in) (lbs)		Metric (mm) (kg)
Lift Capacity	10,000 lbs.		41545 -kg
Max Rise from the ground	72.75		1848mm
Lifting Range	68.70		1745mm
Lowest Clearance from the ground	4.05		103mm
Narrow Drive-Thru Clearance	88.15		2239mm
Narrow Overall Width	140.43		3567mm
Narrow Width Inside of Columns	111.42		2830mm
Medium Drive-Thru Clearance	94.06		2389mm
Medium Overall Width	146.34		3717mm
Medium Width Inside of Columns	117.32		2980mm
Wide Drive-Thru Clearance	99.96		2539mm
Wide Overall Width	152.24		3867mm
Wide Width Inside of Columns	123.23		3130mm
Front Arm Reach	19.3 to 41.85		492 to 1063mm
Rear Arm Reach	37.3 to 60.20		948 to 1529mm
Standard Overall Height	143.7in	11.97ft	3650mm
Standard Ceiling Height Requirements	144in	12ft	3658mm
Tall Overall Optional Height – NOT INCLUDED	***166in***	***13.89ft***	***4235mm***
Tall Ceiling Height Requirements – NOT INCLUDED	***168in***	***14ft***	***4267mm***
Width Arms Open Symmetric Setting	122.09		3101mm
Width Arms Asymmetric Setting	82.64		2099mm
Width Arms Centered	34.45		875mm
Max Load Per Arm	2500-lbs.		1136-kg
Shipping Dimensions L x W x H	141.93 x 22.44 x 37.6		3605 x 570 x 955 mm
Shipping Weight	1893.26-lbs		860-kg

Description	Specifications
Lock Mechanism	Manual
Motor Phase(s)	1 Phase
Volts	208-240
Hertz	50/60
Amps	25 Amps (5.5 kw)
Time to Full Rise (seconds)	60
Maximum operating hydraulic pressure developed upon lifting the rated capacity	2450 psi / 168.92 bar
Manufacturer Warranty	2 Years Limited

Optional: Height Extension Kit
Additional Height:
24in
609.6mm
Shipping Dimensions:
30.31in x 17.32in x 16.93in
770mm x 440mm x 430mm
Shipping Weight
167.55-lbs / 76-kg

OVERALL HEIGHT CONSIDERATION:

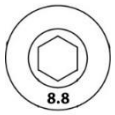
Standard Ceiling Height Requirements: 144-in
Tall Ceiling Height Requirements w/Optional 2FT Extension: 168-in

Safe Operating Temperature is between 40°F – 105°F (4°C - 41°C)

Manufacturer recommends using a 25-amp circuit for operating lift

FASTENER TORQUE RECOMMENDATIONS

Values are stated in foot pounds (ft-lbs)

HHCS SHCS CSCS (SAE)	HHCS SHCS CSCS (Metric)	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8	 Socket Head Cap Screw	 Socket Head Cap Screw
		Class 5.8	Class 8.8	Class 10.9	Class 12.9	Class 12.9
¼-20	M6 X 1.0	6	10	14	7.1	11.6
5/16-18	M8 X 1.25	12	19	29	17	29
3/8-16	M10 X 1.50	20	33	47	34	57
7/16-14	NA	32	54	78	NA	NA
½-13	M12 X 1.75	47	78	119	59	99
9/16-12	M14 X 2.00	69	114	169	94	158
5/8-11	M16 X 2.00	96	154	230	146	250
¾-10	M18 X 2.50	155	257	380	210	341
7/8-9	M22 X 2.5	206	382	600	NA	559
¾ Anchor Bolts		150 ft-lbs (for Simpson Anchors provided)				

For national, state, and local building codes requiring CLASS C anchoring requirements, please refer to ASTM C881 / C881M - 15 Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete

CONCRETE FOUNDATION ANCHORING SPECIFICATIONS AND REQUIREMENTS

Manufacturer recommends installation on 2-Post Models use a concrete pad 6 Inch Min. Thickness / 3,000 PSI (4,000 PSI Recommended)
Before installing your new lift, check the following:

Select Lift Location: Always use architects building plans when available. Check layout dimension against floor plan requirements making sure that adequate space is available.

Floor Requirements: The lift should be located on a relatively level floor of less than **3 degrees' slope**. If slope is questionable, consider a survey of the site and/or the possibility of pouring a new level concrete slab. Failure to do so could cause personal injury or death.

Ceiling Requirements: The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines, etc.…

Defective Concrete: Visually inspect the site where the lift is to be installed and check for cracked or defective concrete. If site is in question, contact a local inspection agency before installing lift.
DO NOT install on asphalt or other similar unstable surface. Columns are supported only by anchoring to concrete floors.
Manufacturer will not be held responsible for any concrete that may not meet slope requirements and will not be responsible for any charges relating to new concrete slabs pouring or leveling or damage.
For national, state, and local building codes requiring CLASS C anchoring requirements, please refer to ASTM C881 / C881M - 15 Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete

IMPORTANT INFORMATION AND GENERAL NOTES FOR EXPANSION ANCHORS

General Instructions for Installing Concrete Anchors

- These general instructions for the installer are provided to ensure the proper selection and installation of Anchor Products and must be followed carefully. These general instructions are in addition to the specific design and installation instructions and notes provided for each particular product, all of which should be consulted prior to and during the installation Anchor Products.
- Use proper safety equipment.
- Most concrete mixes are designed to obtain the desired properties within 28 days after being cast (28-day cure).
- Concrete shall have compression strength of at least 3,000 PSI and a minimum thickness of 6" in order to achieve a minimum anchor embedment. NOTE: When using the standard supplied ¾" x 5 ½" anchors; if the top of the anchor exceeds 2 ¼" above the floor grade you DO NOT have enough embedment.
- Maintain a 8" minimum distance from any slab edge or seam. Hole to hole spacing should be a minimum 6 ½" in any direction. Hole depth should be a minimum of 6".
- Do not modify Mechanical Wedge Anchor products. The performance of modified products may be substantially weakened. Manufacturer will not warrant or guarantee the performance of such modified products.
- Do not alter installation procedures from those set forth in this Manual.
- Drill holes for mechanical anchors with carbide-tipped drill bits meeting the diameter requirements of ANSI B212.15. A properly-sized hole is critical to the performance of mechanical anchors.
- Rotary-hammer drills with light, high frequency impact are recommended for drilling holes.
- Do not use excessively worn bits or bits which have been incorrectly sharpened.
- Please note that the use of oversized holes' is NOT permitted for anchoring any lift. DO NOT USE Anchor Adhesive to fill spacing of oversize holes'. Move lift location or fill holes with Anchor Adhesive and Re-drill to correct Hole Specification. (See manufacturer for proper anchor adhesive curing times.)

CONCRETE FOUNDATION ANCHORING SPECIFICATIONS AND REQUIREMENTS

Manufacturer recommends installation on 2-Post Models use a concrete pad 6 Inch Min. Thickness / 3,000 PSI (4,000 PSI Recommended)
Before installing your new lift, check the following:

Select Lift Location: Always use architects building plans when available. Check layout dimension against floor plan requirements making sure that adequate space is available.

Floor Requirements: The lift should be located on a relatively level floor of less than **3 degrees' slope**. If slope is questionable, consider a survey of the site and/or the possibility of pouring a new level concrete slab. Failure to do so could cause personal injury or death.

Ceiling Requirements: The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines, etc.…

Defective Concrete: Visually inspect the site where the lift is to be installed and check for cracked or defective concrete. If site is in question, contact a local inspection agency before installing lift.

DO NOT install on asphalt or other similar unstable surface. Columns are supported only by anchoring to concrete floors.

Manufacturer will not be held responsible for any concrete that may not meet slope requirements and will not be responsible for any charges relating to new concrete slabs pouring or leveling or damage.

CLASS C SIESMIC APPLICATIONS: For national, state, and local building codes requiring CLASS C anchoring requirements, please refer to ASTM C881 / C881M - 15 Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete

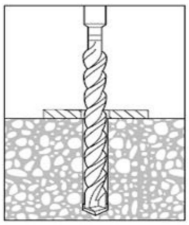
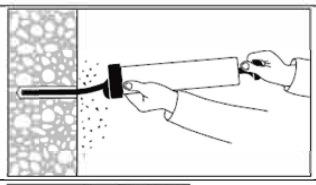
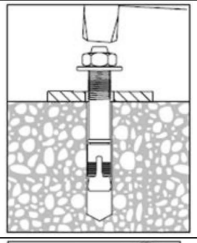
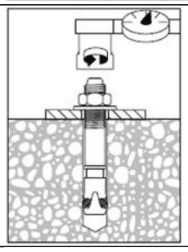
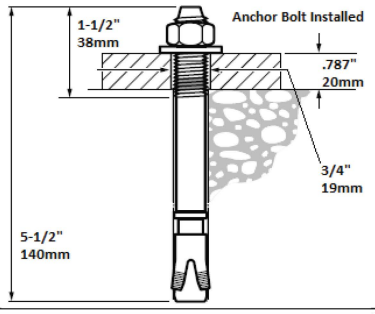
IMPORTANT INFORMATION AND GENERAL NOTES FOR EXPANSION ANCHORS

General Instructions for Installing Concrete Anchors

EXPANSION ANCHOR INSTALLATION INSTRUCTIONS ¾” X 5-1/2”

Anchor size is same as drill bit size (.775" to .787“)

Use a hammer drill with a Carbide tip, 3/4" diameter, solid drill bit. The bit tip diameter should be to ANSI Standard B212.15-1994. The Simpson-Tie Strong Bolt 2 wedge anchor is used to resist static, wind and seismic tension and concrete loads in cracked and uncracked concrete applications, with a compressive strength of 3,000psi to 8,500psi. Supports Compliance with 2015, 2012, 2009, and 2006, 2003 International Building Code (IBC); and International Residential Code (IRC). The Strong-Bolt 2 wedge anchors are torque-controlled, mechanical expansion anchors consisting of an anchor body, expansion clip, nut, and washer.

1. 	Hammer Drill a hole to the same nominal diameter as the expansion anchor. The hole depth must exceed the anchor embedment at least ¼”. Use the baseplate as a drilling template to ensure proper anchor locations. (Drill completely through the concrete floor in case movement of the lift is required.)
2. 	Clean hole completely. Remove dirt and dust with the use of a shop vac. or an air compressor.
3. 	Assemble the flat washer and nut flush on the anchor bolt. Drive the expansion anchor into the hole using a hammer. If shimming is required, make sure to leave threads exposed for proper shimming.
4. 	Tighten the nut to the recommended installation torque.
5. 	Installation complete.

Do not disturb, bolt up, or apply load to adhesive anchors prior to the full cure of any adhesive.
Metal anchors and fasteners will corrode and may lose load-carrying capacity when installed in corrosive environments or exposed to corrosive materials. There are many environments and materials which may cause corrosion including ocean salt air, fire-retardants, fumes, fertilizers, preservative-treated wood, dissimilar metals, and other corrosive elements.
Finished Diameters for Rotary and Rotary Hammer Carbide Tipped Concrete Drills per ANSI B212.15

Do not cut or drill through a post tension cable! (Locate any post tension cables before you drill.)

PRE-INSTALLATION PROCEDURES

Before beginning your installation make sure you read the installation manual and insure all instructions and safety guidelines are fully understood. Check that all component parts are accounted for. Locate the installation area, identify the center line of the bay and mark the floor. Also mark the center of bay entrance door. Connect these two points with a short chalk line in the area where lift will be located. Draw a second chalk line at 90° to locate the positions of both lift columns. (Refer to lift dimensions on this page)
Keep this manual with lift at all times.

DO NO INSTALL LIFT ON ASPHALT OR ANY OTHER SURFACE THAN A CONCRETE FLOOR CONFORMING TO THE MINIMUM REQUIREMENTS DETAILED IN THIS MANUAL. DO NOT INSTALL THIS LIFT ON CONCRETE WITH SEAMS OR CRACKS OR DEFECT. IF YOU HAVE ANY QUESTIONS AND CONCERNS WITH THE LIFT LOCATION SELECTED CONTACT YOUR LOCAL ARCHITECT.

Use safety protective clothing and protective wear when installing lift.

Installation Tools Required:

- 16ft. Measuring tape
- Chalk line and chalk
- Heavy duty metal wire cutters
- 3 ft. Crow bar
- Full set of metric wrenches and ratchet set
- Full set SAE wrenches and ratchet set
- Full set metric and SAE Allen keys
- 1-1/8" Socket and Calibrated Torque Wrench
- Hammer
- Sledge hammer (for installing anchor bolts)
- Rubber mallet
- Phillip screwdrivers
- Flat blade screwdrivers
- Snap ring pliers
- (2) 12 ft. Step ladders
- (1) 4 ft. Level
- (1) rotary hammer drill with 3/4" diameter masonry drill bit
- Lifting devices: Use proper lifting devices such as cranes or a forklift.
- 4" x 4" wooden blocks (use for unpacking)
- Additional help
- Gloves

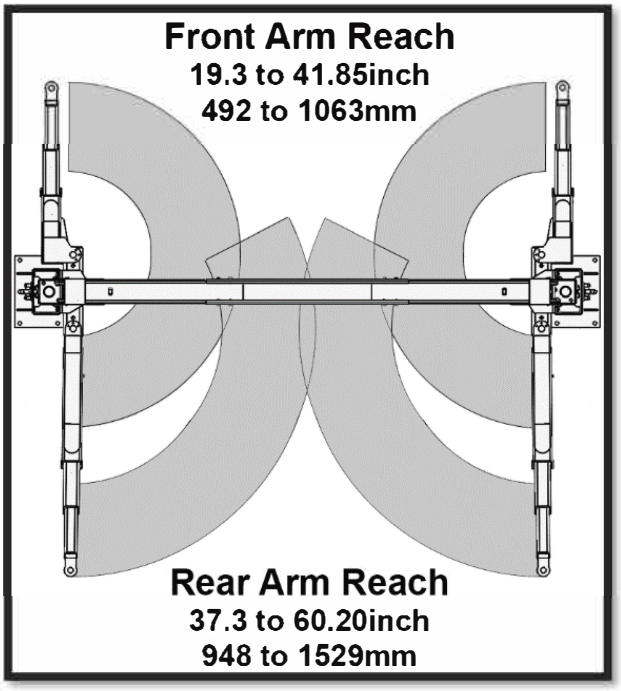
List of items included in shipment:

- 1– Power Side Column
- 1– Non-Power Side Column
- 2—Lifting Carriages
- 2– Cylinders
- 1– Crossover Beam Assembly
- 1– Long Hydraulic Hose
- 1– Medium Hydraulic Hose
- 1– Short Hydraulic Hose
- 1—Power Unit
- 1—Mercury Switch
- 4—Lifting Arms
- 4—Drop Pins
- 4—Lifting Pads
- 4—Lift Pad Extension
- 1 – Dampener Pad
- 2– Safety Latch Assemblies
- 2– Safety Covers
- 2—Boxes Hardware
- 10—Expansion Anchor Bolts 3/4" X 5 –1/2"
- 1—Installation Manual
- 4—Safety Labels

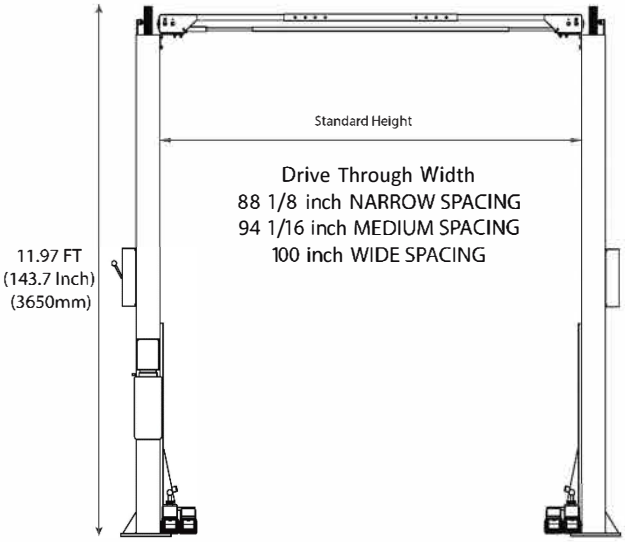
A qualified person should be consulted to address seismic loads and other local or state requirements.

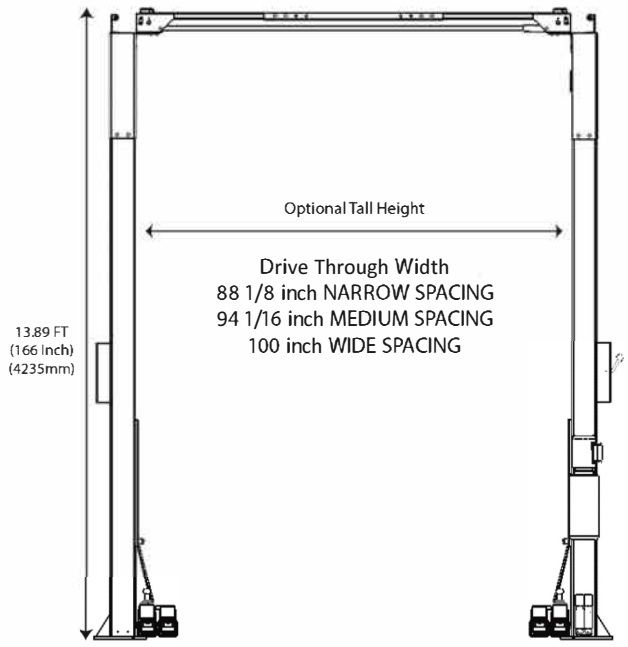
This car lift is designed for indoor installation, prohibiting outdoor installation of this lift. Approved only for indoor installation.

CAR LIFT DIMENSIONS

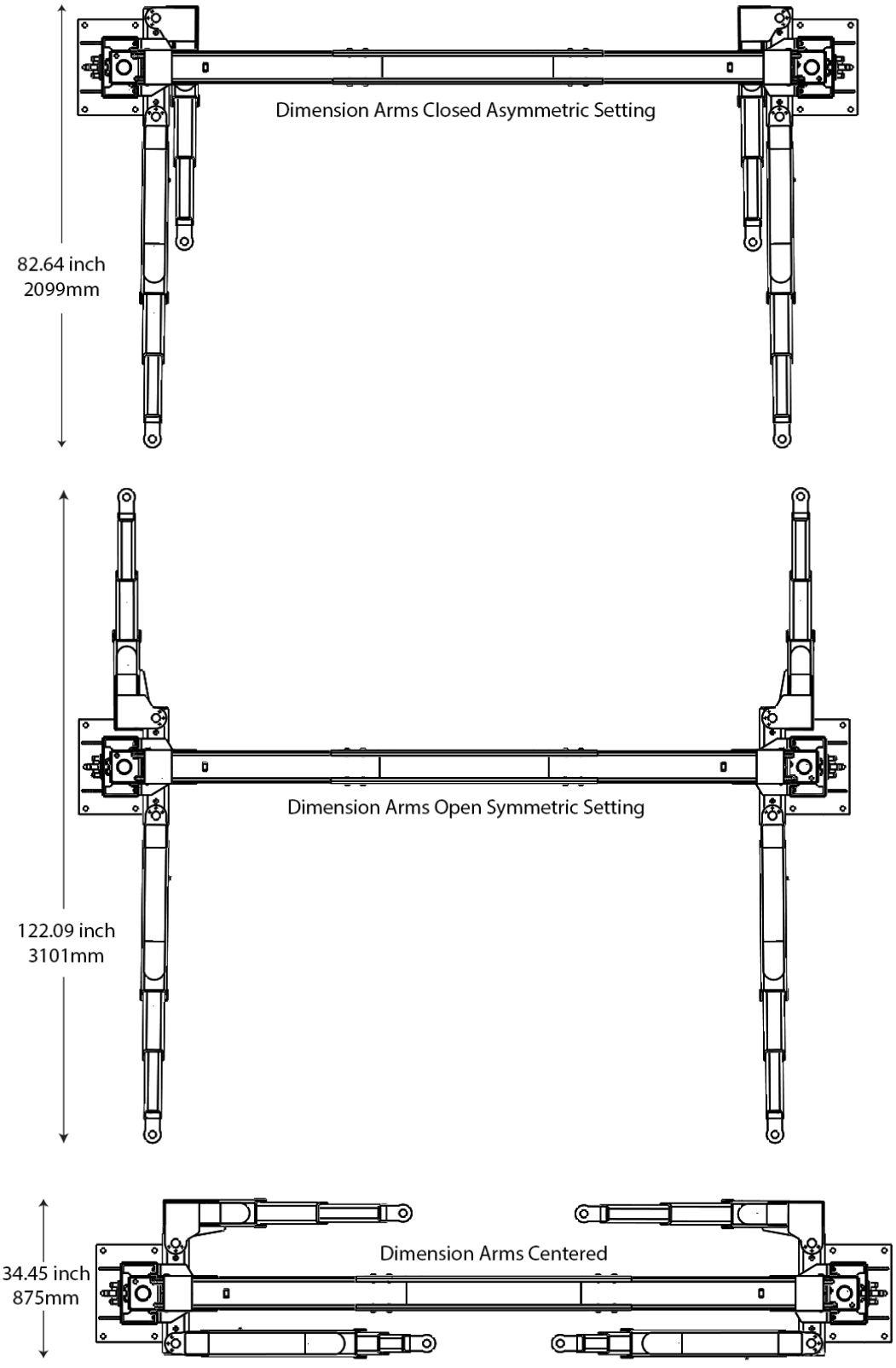


- **IMPORTANT: WIDE SETTING should only be used for specialty fabrication. Not recommended for standard use.**
- **It is recommended to use the Narrow and Middle spacing, these are the best application for most vehicles new lite duty trucks and narrow vehicles.**

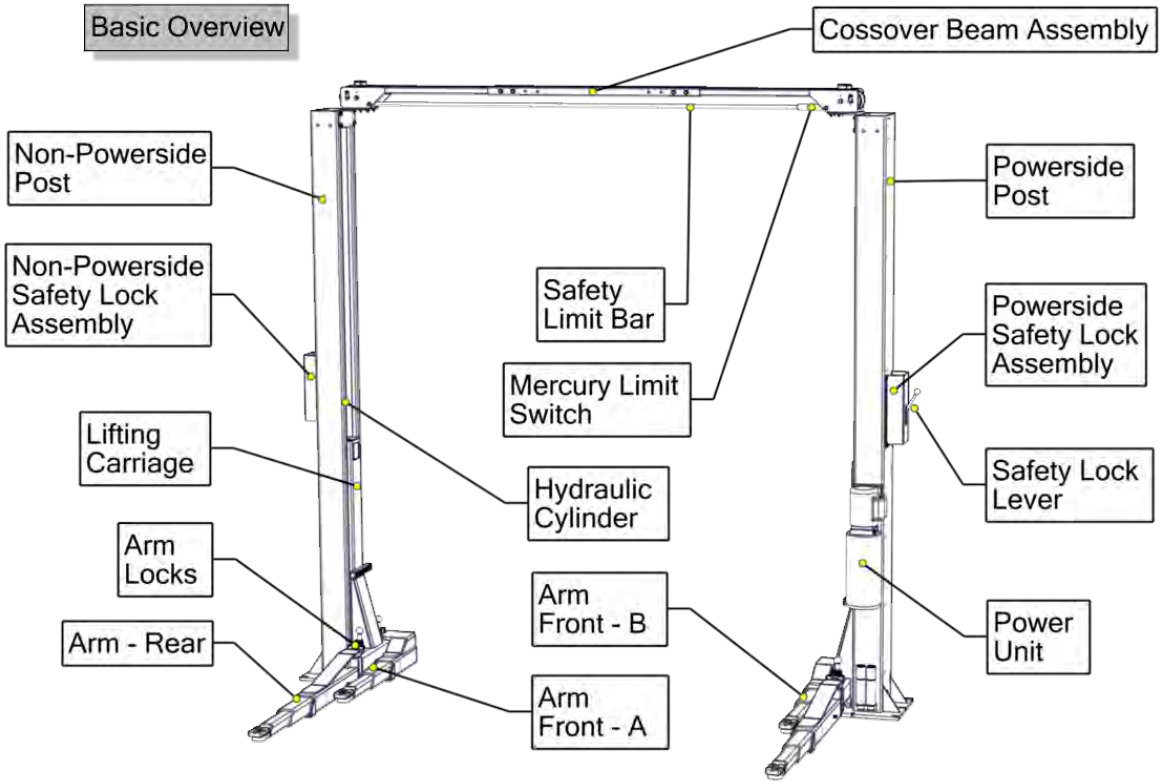


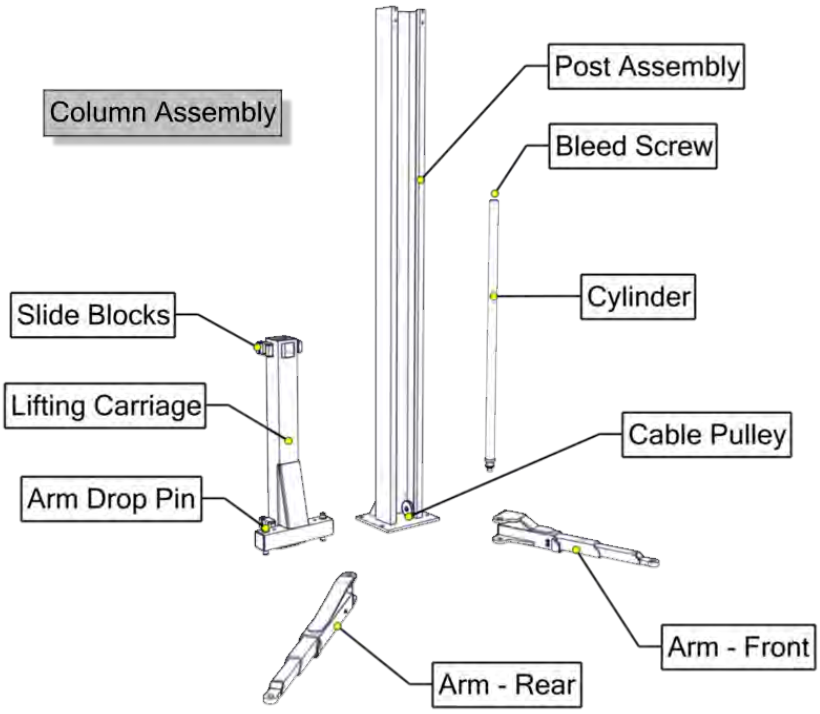


CAR LIFT DIMENSIONS



CAR LIFT GENERAL ASSEMBLY COMPONENTS





INSTALLATION PROCEDURE WHAT'S INCLUDED:

GENERAL PARTS LIST

Index #	Item Number	Item Description	Quantity
1	QJY245DX.1.1	COLUMN POWERSIDE ASSEMBLY	1
2	QJY245DX.2.1	COLUMN NON-POWERSIDE ASSEMBLY	1
10	GB5783 M10X60mm	HHCS M10X60mm	2
	GB97 M10	WASHER M10	2
	GB93 M10	LOCK WASHER M10	2
	QJY245DX.9-04	M10 THREADED L-BRACKET FOR SAFETY BAR	2
11	GB5783 M12X35mm	HHCS M12X35mm	8
	GB97 M12	WASHER M12	16
	GB889 M12	NYLON INSERT HEX LOCK NUT M12	8
12	QJY245DS.9-04	ASSEMBLY ATTACHMENT CROSS BEAM- A	1
12	QJY245DS.9-05	ASSEMBLY ATTACHMENT CROSS BEAM- B	1
13	GB5783 M10X30mm	HHCS M10X30mm	8
	GB97 M10	WASHER M10	16
	GB889 M10	NYLON INSERT HEX LOCK NUT M10	8
14	GB5783 M12X25mm	HHCS M12X25mm	8
	GB97 M12	WASHER M12	16
	GB889 M12	NYLON INSERT HEX LOCK NUT M12	8
15	QJY245DS.9.2	OVERHEAD CROSSBEAM ASSEMBLY	1
18	QJY245DX.9-02	SAFETY BAR	1
	QJY245DX.9-03	SAFETY BAR FOAM COVER	1
19	SP-1447-14	MERCURY LIMIT SWITCH (W/14' 12-2 AWG CORD)	1
22	QJY245DS-13	SAFETY COVER POWERSIDE	1
23	QJY245DX-03	SAFETY LOCK LEVER	1
	GB84141 M10X25mm	HANDLE BALL M10X25mm	1
	GB6170 M10	HEX NUT M10	1
24	GB70 M8X12mm	SHCS M8X12mm	8
25	QJY245DS-14	SAFETY COVER NON-POWERSIDE	1
29	QJY245DS-16	ADAPTER BRACKET	2
30	GB70 M8X12mm	SHCS M8X12mm	4
	GB97 M8	WASHER M8	4
31	QJY245DX-12	EXTENSION, ADAPTER, 1 1/2 in, 38mm	4
32	QJY245DS-18	EXTENSION, ADAPTER, 3 in, 75mm	4
33	QJY245DS-05	EXTENSION, ADAPTER, 6in, 180mm	4
40	QJY245DX.3-03	SLIDE BLOCK SHIM	10
46	QJY245DX-02	ARM PIN	4
47	GB894 M38	EXTERNAL RETAINING RING M38	4
48D	QJY245DX.4D	SHORT ARM ASSEMBLY (FRONT DRIVER SIDE)	1
48P	QJY245DX.4P	SHORT ARM ASSEMBLY (FRONT PASSENGER SIDE)	1
49	QJY245DX.5	LONG ARM ASSEMBLY (REAR ARM)	2
62-1	QJY245DX.4A	ARM LIFT PAD COMPLETE ASSEMBLY	4
63	STB2-75512	SIMPSON SEISMIC/CRACKED AND UNCRACKED WEDGE-TYPE EXPANSION ANCHOR	10

INSTALLATION PROCEDURE WHAT'S INCLUDED:

EQUALIZER CABLES

Index #	Item Number	Item Description	Quantity
500	QJY245DX-01	EQUALIZING CABLE 10,110mm	2
501	QJY245DX-05	EQUALIZER CABLE EXTENDER	4
39	GB6170 M18	HEX NUT M18	8

HYDRAULICS

Index #	Item Number	Item Description	Quantity
301	QJY245DX.8-01	HYDRAULIC HOSE MEDIUM 1,110mm	1
302	QJY245DX.8-02	HYDRAULIC HOSE SHORT 230mm	1
303	QJY245DX.8-03	HYDRAULIC HOSE EXTENDER FITTING	1
304	QJY245DX.8-04	HYDRAULIC HOSE LONG 9,130mm	1
305	QJY245DX.8-05	CYLINDER HYDRAULIC FITTING 125mm ¼NPT	2
306	QJY245DS.7	HYDRAULIC CYLINDER 1775.5mm (69.9")	2
307	QJY245DS.8-06	T-FITTING #6 JIS	1
308	QJY245DS.8-05	PUMP FITTING #6 BOSS FITTING (SAE TO JIS)	1
309	JB982-77	O-RING ASSEMBLED WASHER (FOR PUMP	1
310	GB5783 M8X22mm	HHCS M8X22mm	4
311	GB97 M8	WASHER M8	4
312	GB889 M8	NYLON INSERT HEX LOCK NUT M8	4
313	YBZ6-F2.1E3H1/AMQOT	WUXI POWER UNIT	1
67	GB70 M6X10mm	SHCS M6X10mm (FOR HYDRAULIC HOSE COVERS)	28
68	GB97 M6	WASHER M6 (FOR HYDRAULIC HOSE COVERS)	28

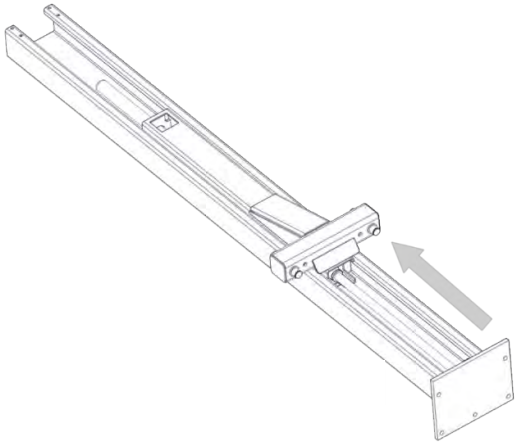
SAFETY CABLE SYSTEM

Ind	Item Number	Item Description	Quan
700	QJY245DX.10-01 SAFETY CABLE (Ø2mm X 7,800mm)	QJY245DX.10-01 SAFETY CABLE (Ø2mm X 7,800mm)	1
701	QJY245DX.10-02	HHCS SAFETY SCREW M8X45mm	1
702	GB6170 M8	HEX NUT M8	4
703	GB5782 M8X35mm	HHCS M8X35mm	1
706	GB97	WASHER M8	2
707	QJY245DS.11	SAFETY CABLE BRACKET	2
708	QJY245DS-03	SAFETY PULLEY 35mm	2
709	GB70 M8X30mm	SHCS M8X30mm	4
710	GB889 M8	NYLON INSERT HEX LOCK NUT M8	4
711	GB70 M8X12mm	SHCS M8X12mm	4
712	QJY245DS.1-02	SAFETY PULLEY SEAT	2
713	QJY245DS-12	SAFETY PULLEY 42mm	2
716	GB70 M6X10mm	SHCS M6X10mm	8
717	GB97 M6	WASHER M6	8

INSTALLATION PROCEDURE

Make sure you have extra help or heavy duty lifting equipment when unloading and assembling the lift. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product. Do not attempt to install equipment unless you have been trained on 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.

1. After unloading the lift, place it near the intended installation location.
2. Remove the shipping bands and packing materials from the lift. The power unit will be unpacked from the top. Note: Be careful not to drop power unit on heavy end
3. Open the wrapping, remove the parts and parts boxes from the packaging. Unbolt the structure from the shipping brackets. (Use proper lifting devices, cranes or a forklift to lift off of shipping brackets.)
4. Slide each carriage 60-70" towards top of columns to expose base of cylinders.
5. Open the oil port of each cylinder by unscrewing the black plastic cap.
6. Install the hydraulic long fittings. Make certain the oil port faces the backside of the column.
7. Once installed align the cylinder rod with the notch in the base plate, the cylinder will fit into the hole in the center of the base plate for proper alignment. (The cylinder fitting may have been previously pre-installed at the factory, if so skip this step. DO NOT remove the stop plug from the cylinder at this time if the hydraulic fittings have already been installed.)
   NOTE: Use Teflon Tape on Hydraulic fitting NPT threads that connects to cylinder port side, <u>DO NOT USE ON TEFLON TAPE ON HYDRAULIC HOSE SIDE.</u>



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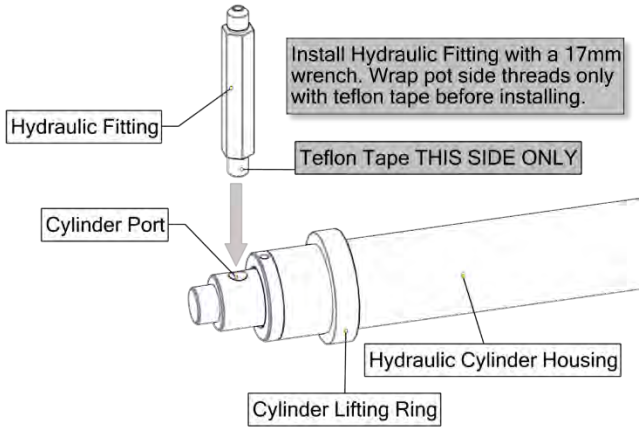

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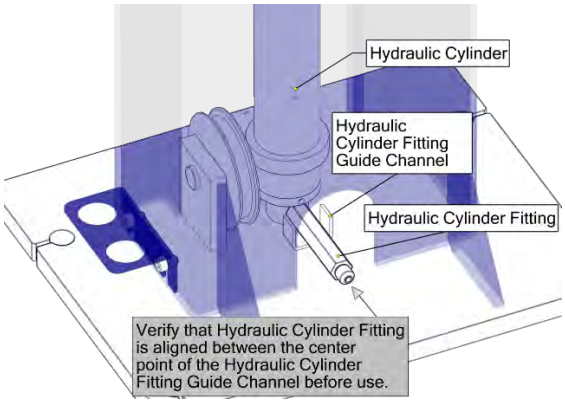
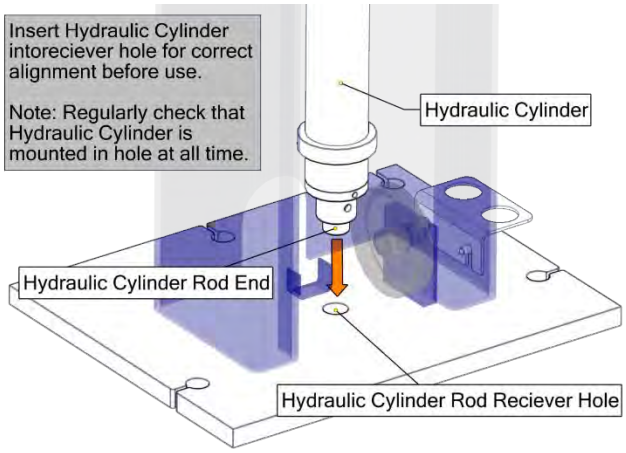
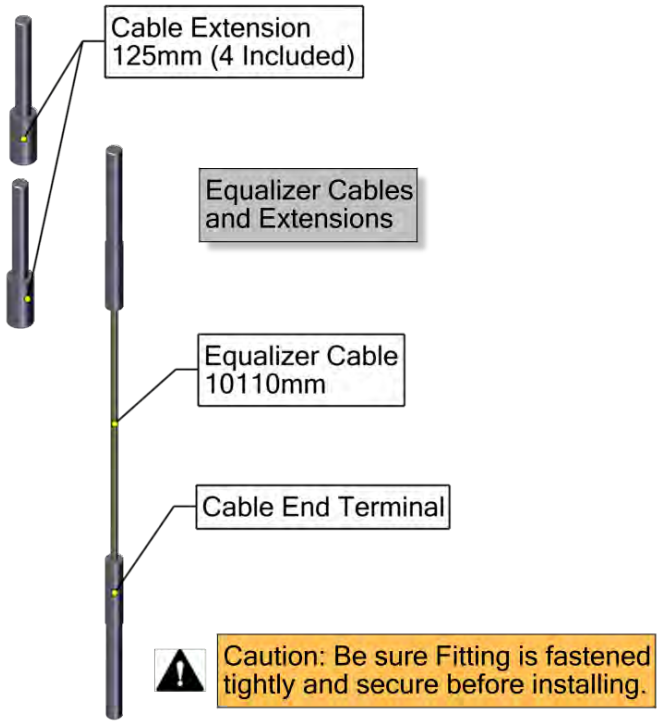


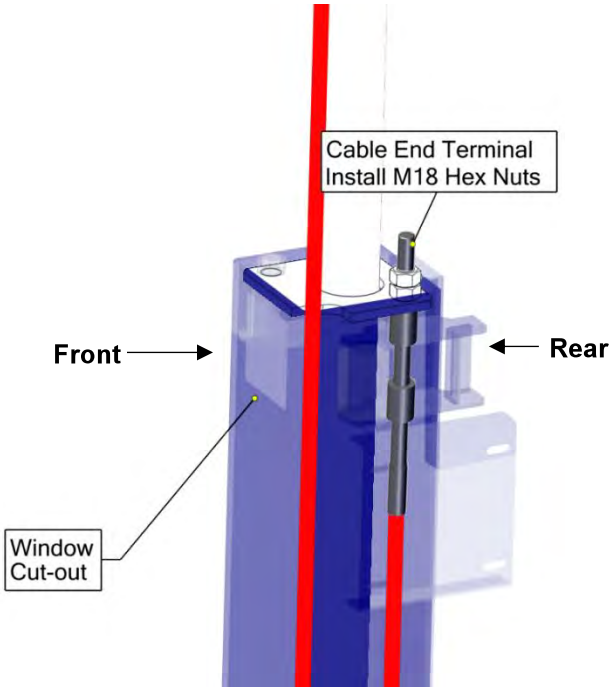
#6



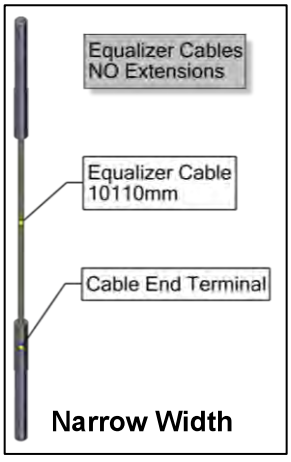
#7

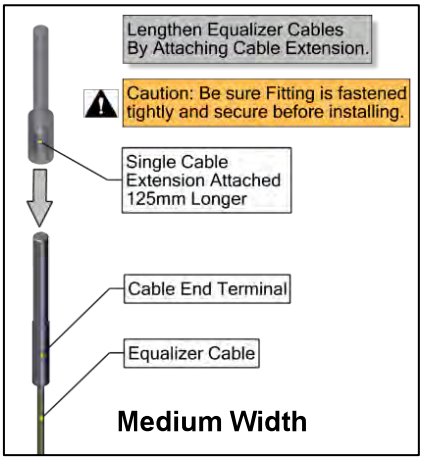
8. To lengthen Equalizer Cables for wider configurations, use the images below as a guide.
9. Install Cable extensions on rear side of the carriage and tighten securely before installing.

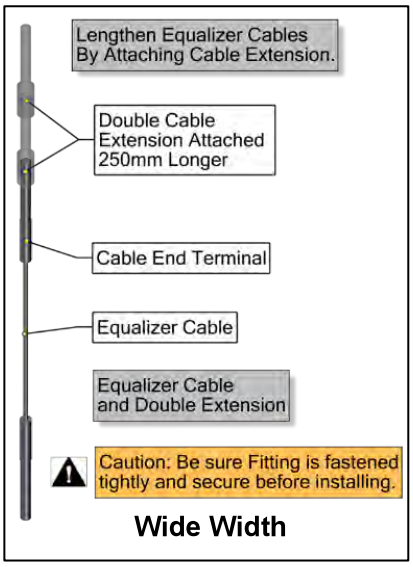




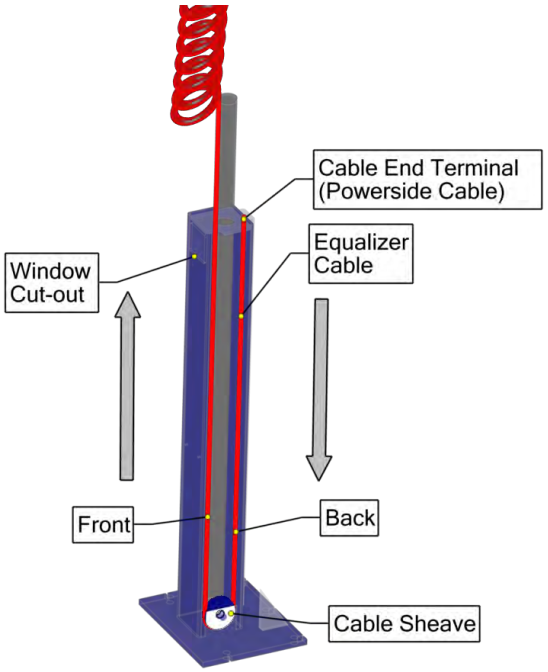
Cable Width Configurations:



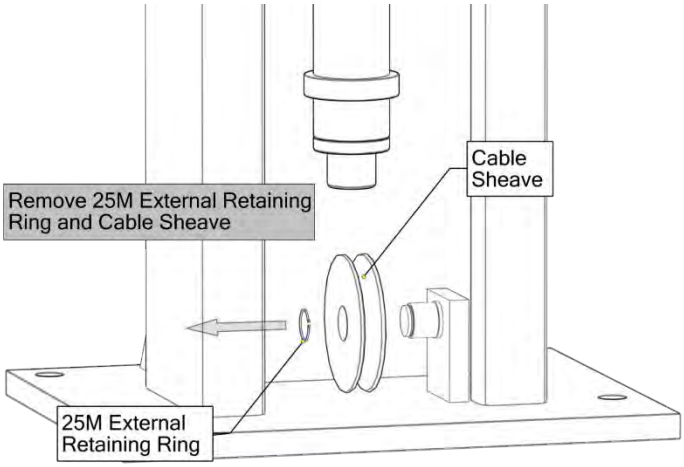




10. Before raising the columns route the cables in each column cables as illustrated below. The stop connector will seat on the rear upper stop plate. Make sure the cable is routed down toward the pulley on the base plate then routed back up towards the front of the carriage. Remove all the cable slack by lowering the lifting carriage and pulling the cable tight. Wind the remaining cable into the column. This will make installing the cables easier before raising columns.
    a) Connect the equalizing cables as shown in the cable diagram below. Do not tighten at this stage of assembly. **Note: make sure not to cross cable over the hydraulic cylinder.**
    b) If an access panel is provided, remove the access panel on the front of the carriage.
    c) Feed the equalizer cable down through the rear top mounting of carriage and around lower sheave. Be sure to pull the cable all the way through until sitting flush on top mounting point.
    d) Remove the bottom sheave so the cable will seat, wrap cable around sheave and replace sheave with cable. Re-install after cable has been routed.
    e) Push the equalizer cables up through the bottom of the carriage. The cable must run through that front hole on the same side and out the top of the carriage. Wrap remaining portion of cable inside column.



#B



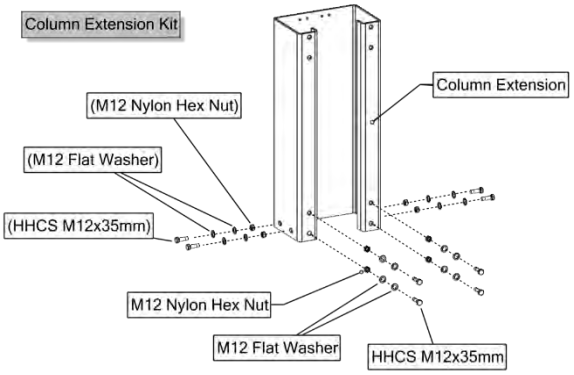
#D

***OPTIONAL HEIGHT EXTENSION KIT INSTALLATION

(NOT INCLUDED) ***If you do not have this option skip to Step 11.***

STEPS (i to ii) is an additional assembly process. For ease of the optional installation this assembly process has been added between steps (10 and 11).

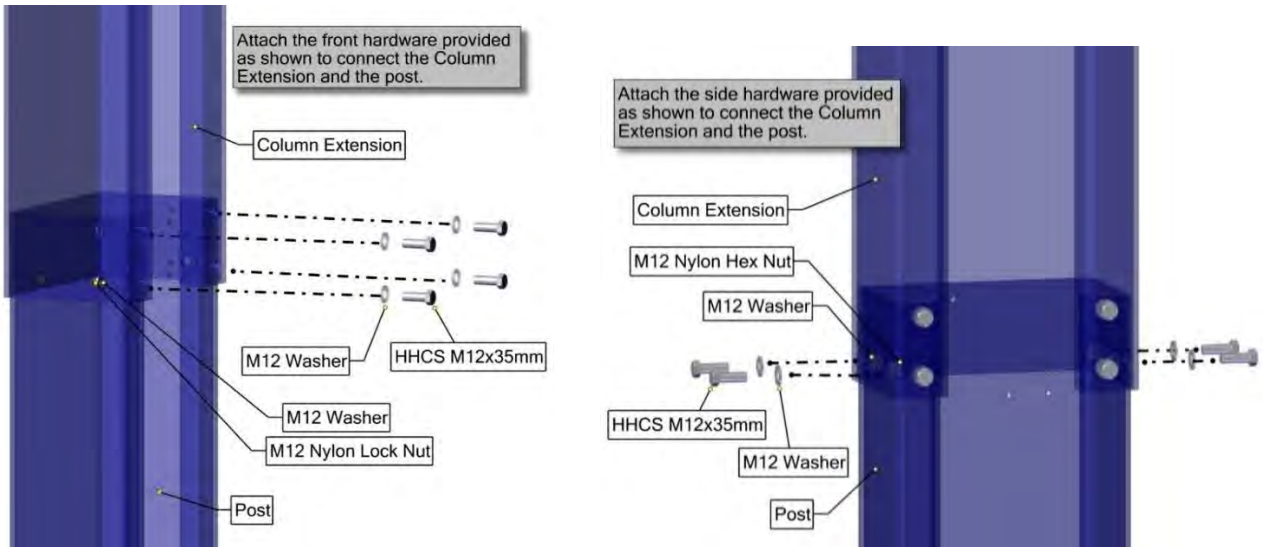
Kit includes:
(2) 2 Foot Column Extensions
(2) Extra Long Equalizer Cables 11,320mm
(1) Extra Long Hydraulic Hose 10,320mm
(1) Safety Cable 9,000mm
(16) HHCS M12X35mm
(16) M12 Nylon Hex Nut
(32) M12 Flat Washer



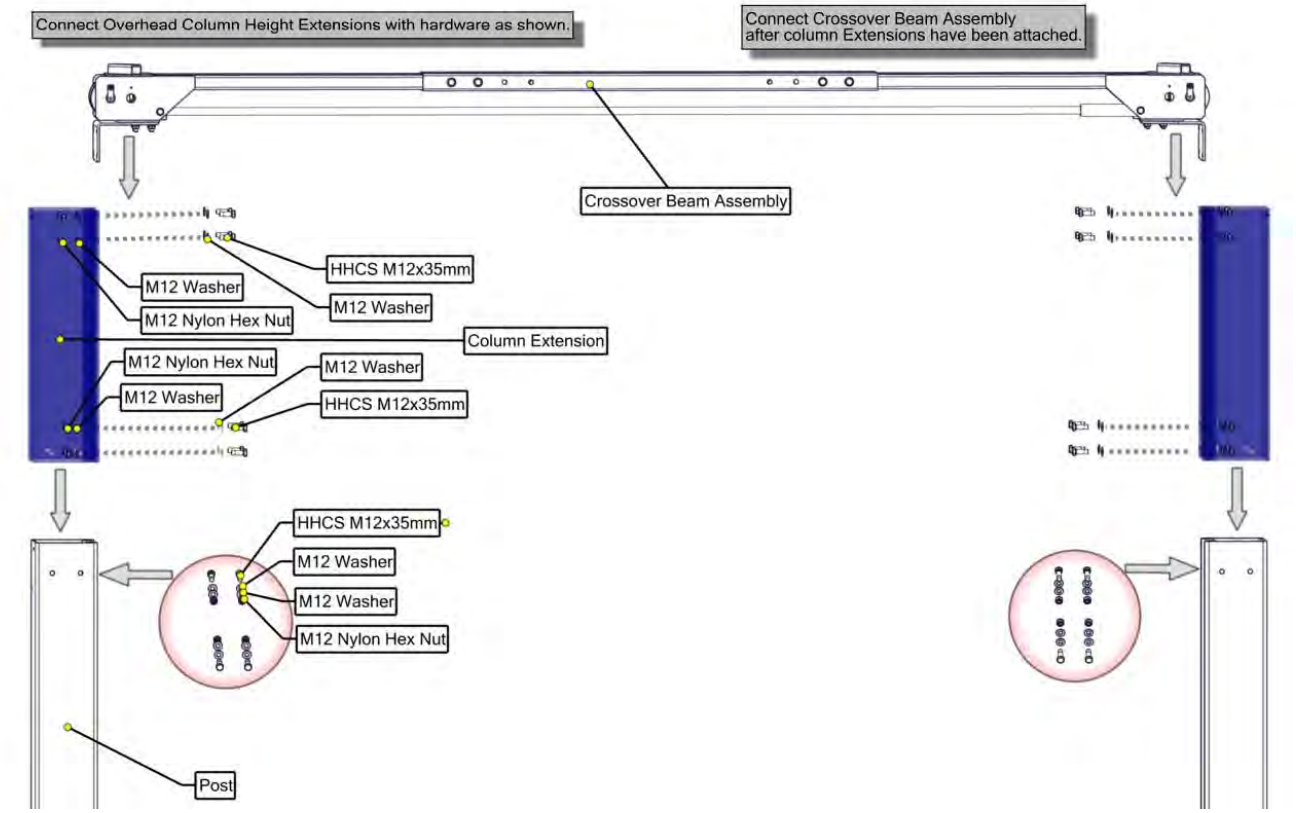
***OPTIONAL HEIGHT EXTENSION KIT INSTALLATION

(NOT INCLUDED) ***If you do not have this option skip to Step 11***

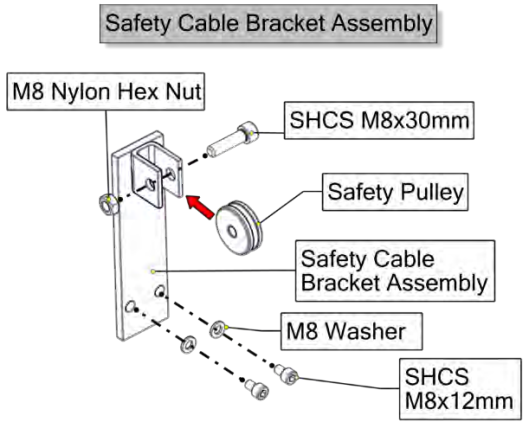
i. Install the height extension, by sliding the extension column over the post and attaching both the front and side hardware as shown. Use HHCS M12x35mm, Washer M12, and M12 Nylon Hex Nut to complete these steps.



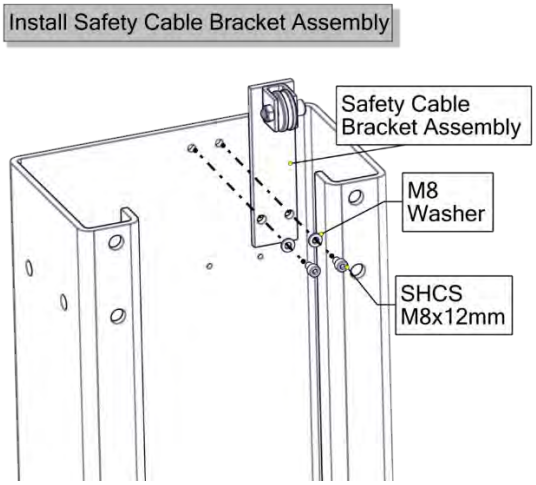
ii. In the image show here in this step is an overview of the height extension complete assembly. This will also be explained in the following steps (10 to 21).



11. Install the safety cable bracket on both columns.

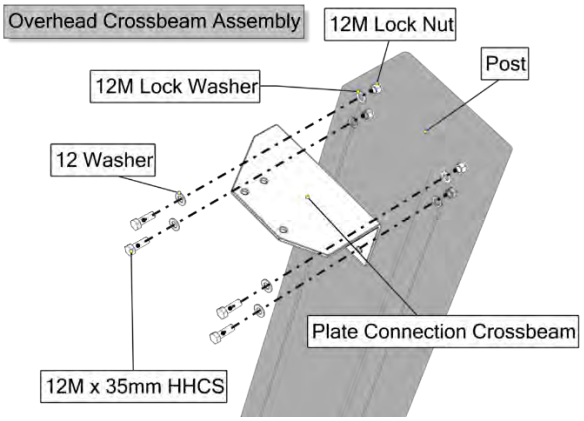


#11

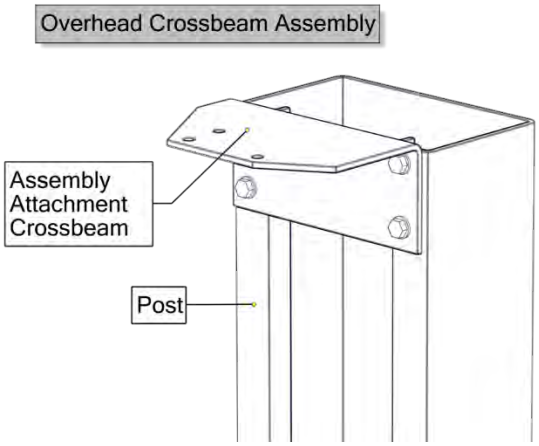


#11

12. Install the crossover beam plate connection.



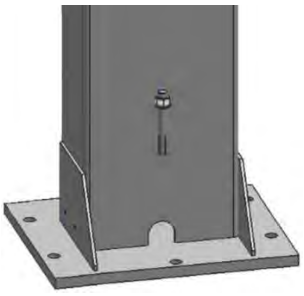
#12



#12

13. Raise the columns and position the columns facing each other. The outside base plates measurements are as shown in the image below. Square using a chalk line and measuring from rear points on base plates (mark your positioning within 1/16”).

14. ***<u>**ONLY ANCHOR ONE POST WITH (1) ANCHOR FOR ALIGNMENT AT THIS TIME ONLY**</u>***
The remaining anchors will be installed after the overhead crossbeam has been installed.
(See concrete requirements before anchoring lift.)



Installation Instruction for Expansion Anchors.

For additional detailed information on foundation requirements see **(See Foundation, Anchoring Requirements, and Anchoring Tips Instructions.)**

CAUTION: Anchors must be at least 8" from the edge of the slab or any seam.

A. *Measure Lift Placement. (Recommended using columns as a template before drilling and marking holes.)*
B. *Keep the drill in a perpendicular line while drilling.*

C. *Let the drill do the work. Do not apply excessive pressure. Lift the drill up and down occasionally to remove residue to reduce binding.*

D. *Drill the hole to depth equal to the length of anchor. Note: Drilling all the way through the concrete (recommended) will allow the anchor to be driven through the bottom of foundation if the threads are damaged or if the lift will need to be relocated. (Example A.1)*

E. *After drilling blow the dust from the holes. (Example A.2)*

F. ***Repeat Steps 1 through 5 (Qty x 10) after the overhead crossbeam has been installed**.*

G. *Move column into place carefully. Then complete the following steps.*

1) *Place flat washer and hex nut over threaded end of 3/4" x 5 1/2" wedge anchor, leaving approximately 1/16 inch of thread exposed carefully tap anchor (use a hammer). Do not damage threads. Tap anchor into the concrete until nut and flat washer are against base plate.*

2) *Using the horseshoe shims provided, shim each column base as required until each column is plumb. If one column has to be elevated to match the plane of the other column, add shim plates. Torque anchors to 150 ft.-lbs. Shim thickness MUST NOT exceed ½" when using the 5 ½" long anchors provided with the lift. Adjust the column extensions plumb.*

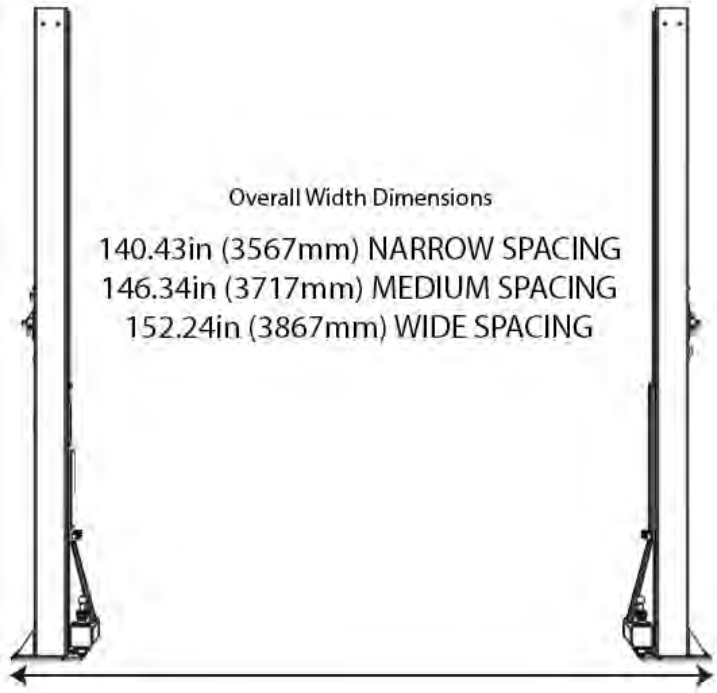
3) *Tighten the nut, two or three turns. Check each anchor bolt with torque wrench set to 100 foot pounds' torque.*

4) *Mechanical Anchors: Tighten the expansion anchors several hours after the initial installation. The anchors should be checked with the daily inspection to make sure they are properly maintained.*

5) *For mechanical anchors that require a specific installation torque: Failure to apply the recommended installation torque can result in excessive displacement of the anchor under load or premature failure of the anchor. These anchors will lose pre-tension after setting due to pre-load relaxation.*

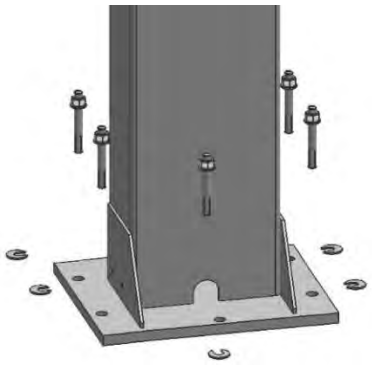
6) ***If anchors do not tighten to 150 ft.-lbs. installation torque, replace the concrete under each column base with a 4' x 4' x 6" thick (Recommended 4,000 PSI) 3000psi minimum concrete pad keyed under and flush with the top of existing floor. Allow concrete to cure before installing lifts and anchors (typically 28 days).***

15. Use your measurement markings to center and locate lift. Once this has been accomplished, the column base plate will be used as a guide for drilling the 3/4" diameter holes into the concrete. **DRILL THE ANCHOR HOLES ONLY FOR THE "POWERSIDE COLUMN"**, installing anchors as you go. NOTE: Drill through concrete slab (recommended) this will allow the anchor to be driven through the bottom of slab, if the threads are damaged or if the lift will need to be relocated.
(See Foundation, Anchoring Requirements, and Anchoring Tips Instructions.)



#15

16. Using a level, check column for side-to-side plumb and front-to-back plumb. If needed, use shims provided by placing shims underneath the base plate and around the anchor bolt. (Shim thickness must not exceed 1/2") This will prevent bending the column bottom plates. Tighten the (2) 3/4" anchor bolts 2 to 3 turns.



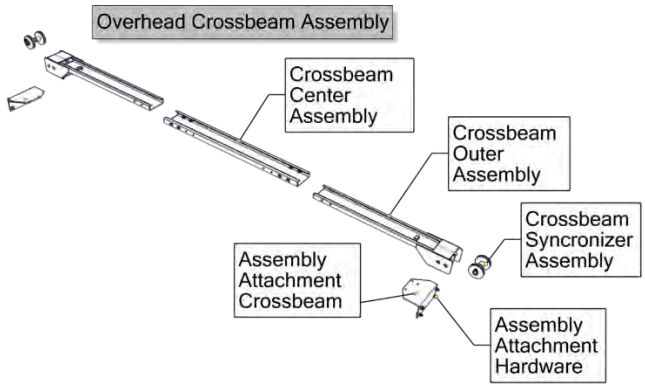
#16

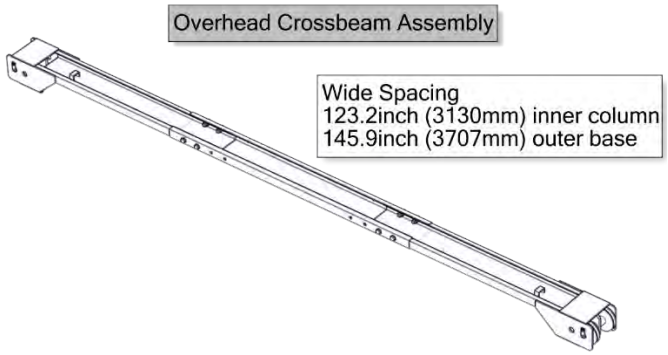
17. Using a tape measure, measure from back corner of the base to the opposite back corner to insure columns are square. After confirming dimensions, install the Overhead Crossbeam

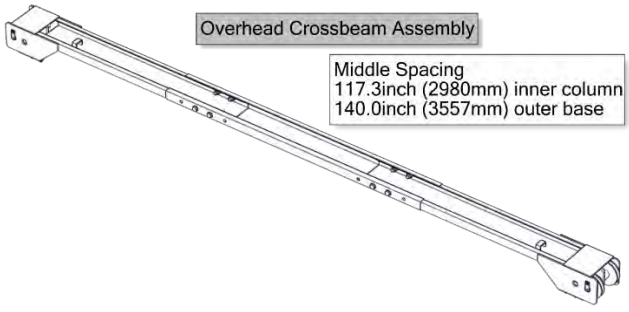
18. **DO NOT ANCHOR THE NON-POWERSIDE COLUMN AT THIS TIME.**
Note: (Verify column is secure standing alone before beginning next procedures. If needed have another team member secure column standing before performing next steps.)

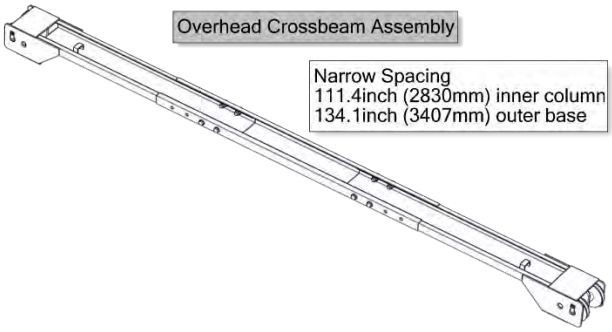
Overhead Crossover Beam

19. Assemble the overhead crossover beam. The final width configuration must be completed at this time. Use the Images on this page to complete the overhead crossbeam assembly.

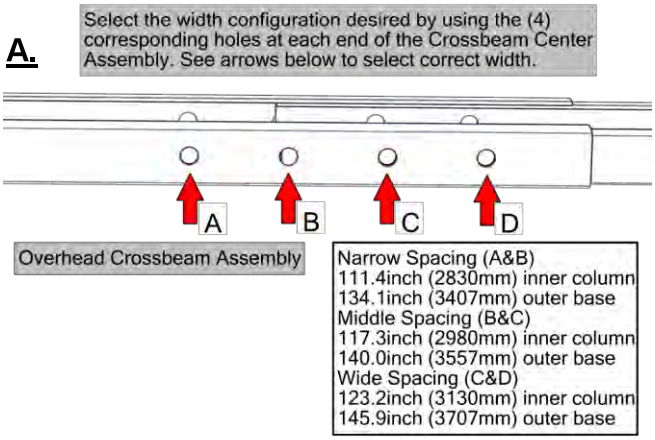




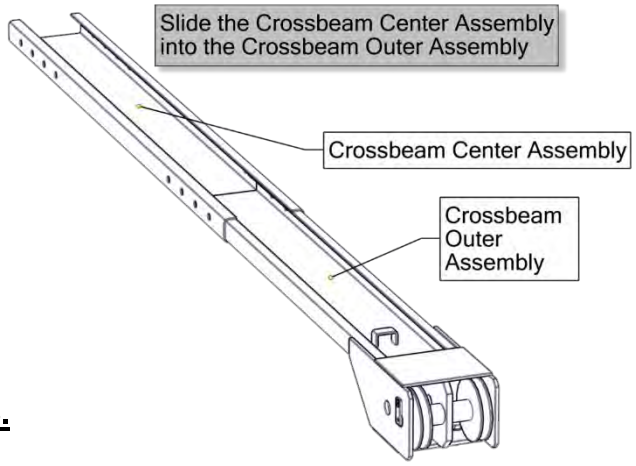




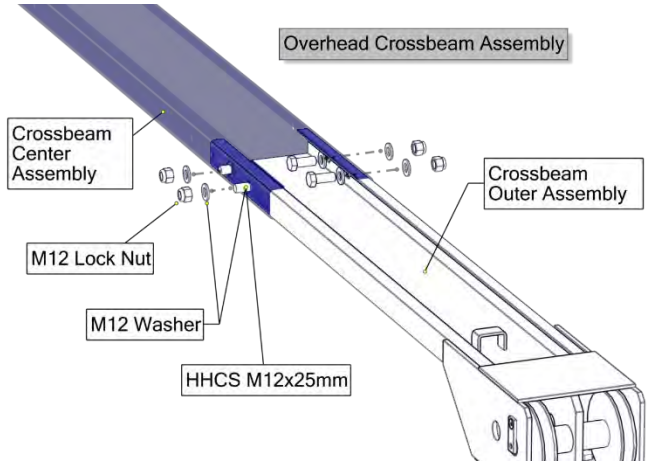
A.



B.

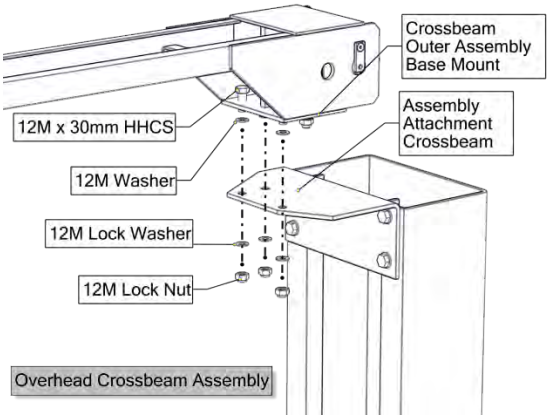


C.

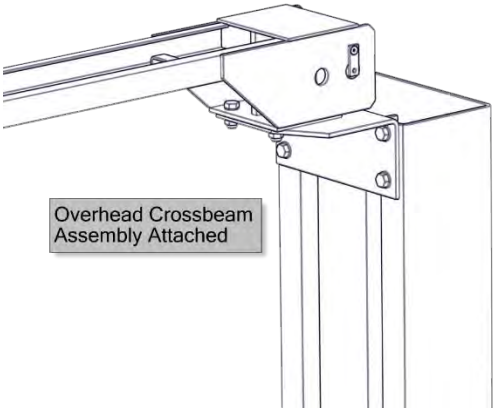


Verify 'hardware' is facing outward when fastening. Install (4) HHCS M12x25MM, M12 Washer, and M12 Lock Washers to each side of the crossbeam assembly sections.

20. Install the overhead crossover beam using (3) HHCS M10x30MM, M10 Washer, M10 Lock Washer, and M10 Lock Nut.
21. Tighten all assembly hardware once the installation of the overhead crossbeam is complete.

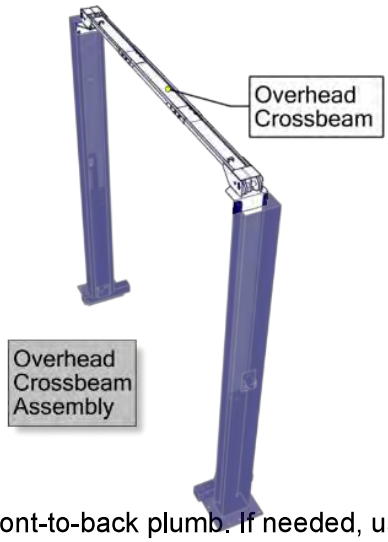


#21

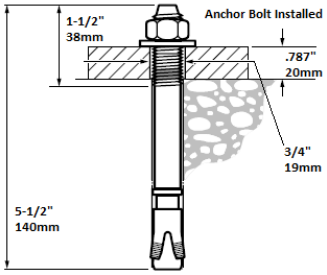


#21

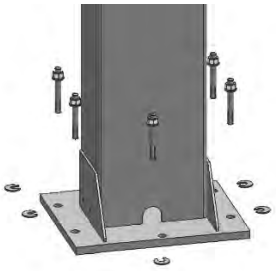
DANGER: #18
Raise the crossover beam and install on the column mounting points to your proper configuration. Make sure to use proper lifting devices (cranes, forklift, ect.), also **USE HELPERS** to install crossover beam. Make sure to use extreme caution when installing the crossover beam. **CROSSBEAM IS TOP HEAVY.** Hardware must be installed from inside the post facing out. This is to avoid interference with the cables and pulleys when operating the lift.



22. Using a level, check both columns for side-to-side plumb and front-to-back plumb. If needed, use shims provided by placing shims underneath the base plates and around the anchor bolt. (Shim thickness must not exceed 1/2") This will prevent bending the column bottom plates and installation on an uneven surface. Do not exceed 3 degrees on the foundation of slope between the two columns.



#22



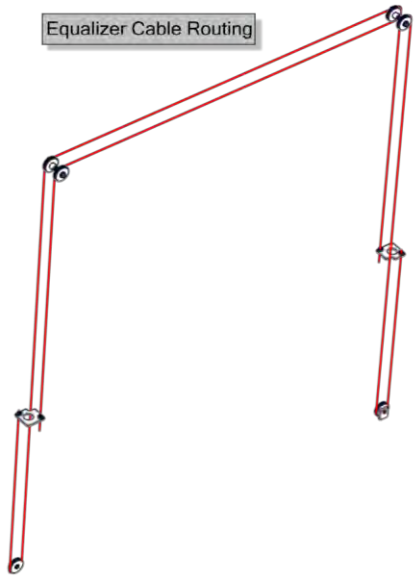
#22

23. Complete the installation of the remaining anchor bolts by drilling and installing the anchors on the on both posts as shown in Steps 12 to 14. Hand tighten all the anchor bolts at this time.

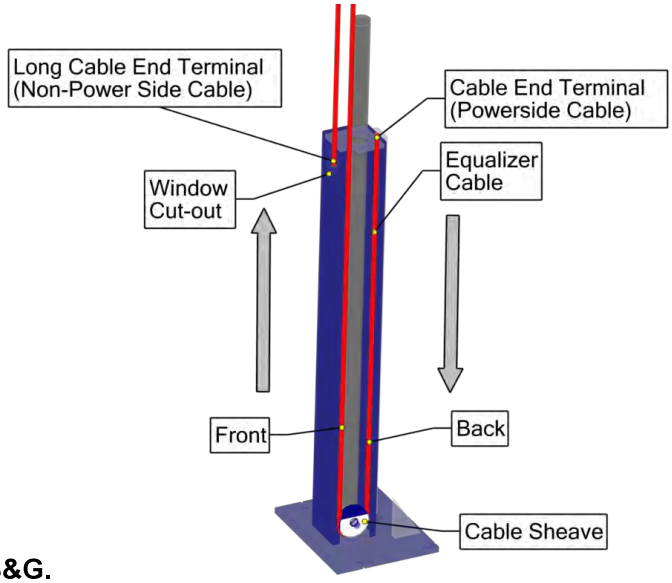
24. **Route the Equalizer Cables**

a. Connect the equalizing cables as shown in the diagram below. Do not tighten completely at this stage of assembly. Leave cables hand tight.
b. If applicable remove the access panel on the front of the carriage.
c. Remove the top sheaves so the cable will seat.
d. Route cable through crossover beam sheaves.

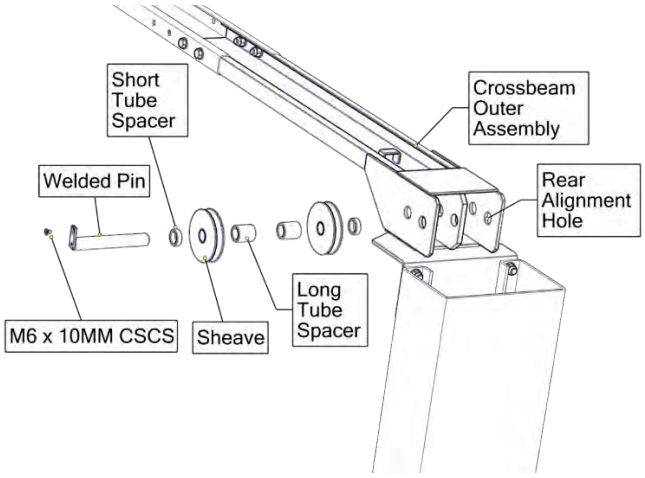
   ⚠ **CAUTION: make sure not to cross cables over each other when cable is routed back down opposite side column.**
e. Fasten cable facing down on opposite side column front mounting point.
f. Fasten cable end with hex nut on end of cable until 1/2" of threads are showing above hex nut. Pull back down through carriage until properly seated.
g. Repeat steps A through G for off side cable.



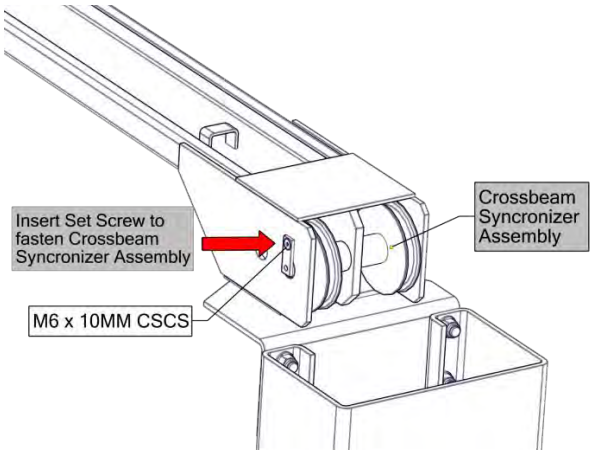
A.



B&G.

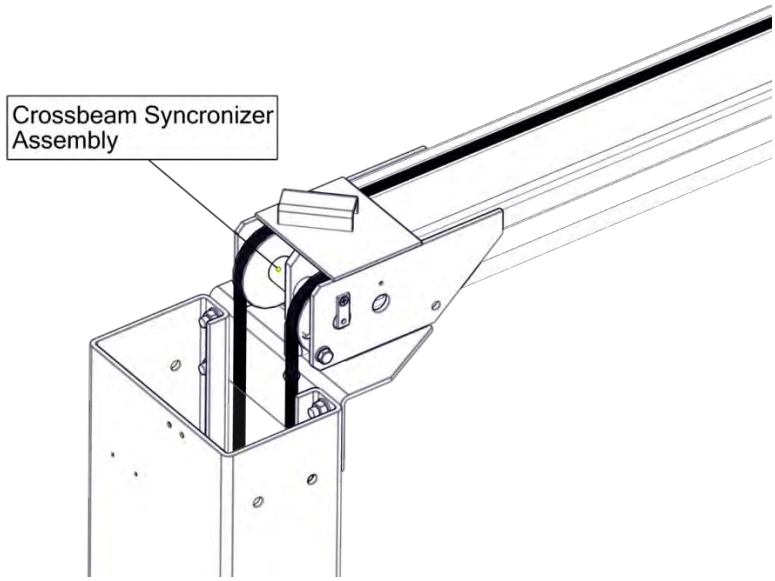


D.



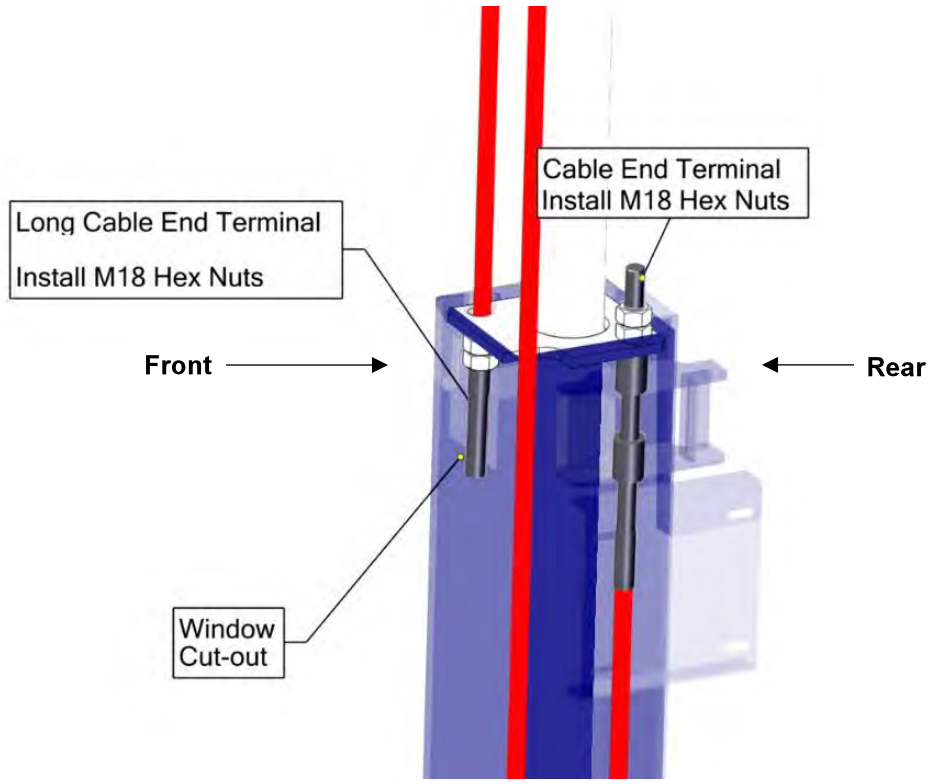
D.

25. Check that the cables are correctly wrapped over all sheaves before completely adjusting cables or operating lift.



#25

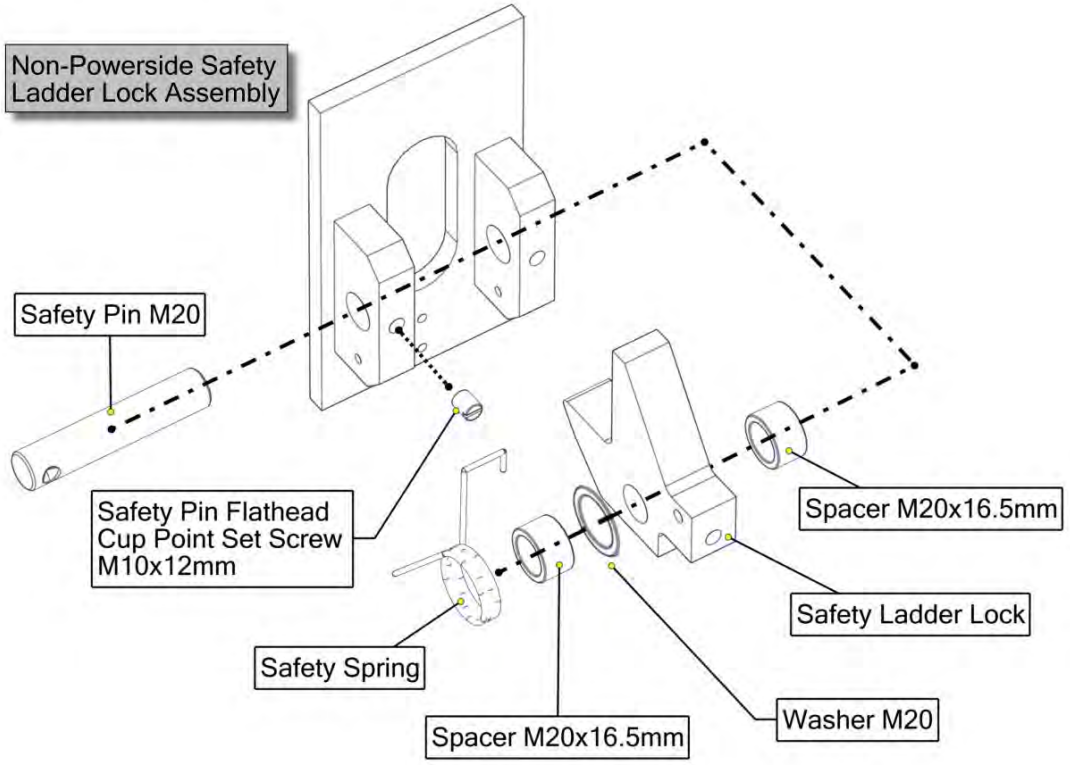
26. Adjust the carriage cable tension. This is accomplished by tightening the (2) M18 tie off hex nuts on each connector the carriage to the cables. Adjust each cable to approximately 1/2" side-to-side play.
Note: The left post carriage nut adjusts the right column carriage.
Note: The right column carriage nut adjusts the left column carriage.



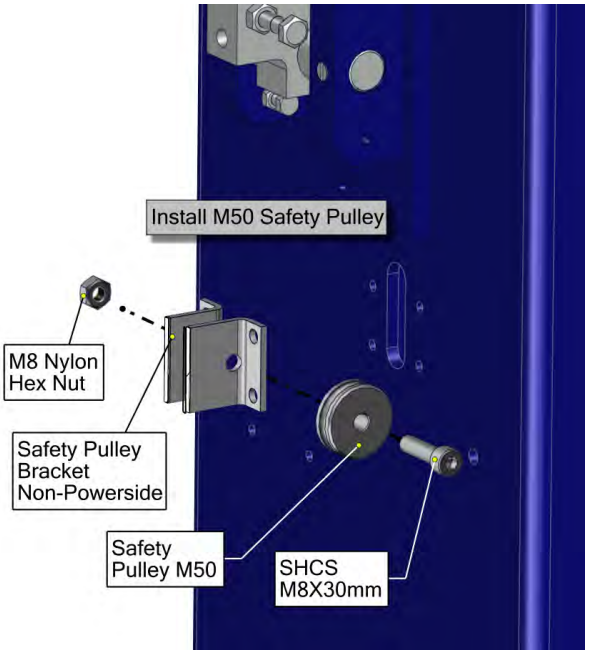
#26

Safety Latches and Safety Cable

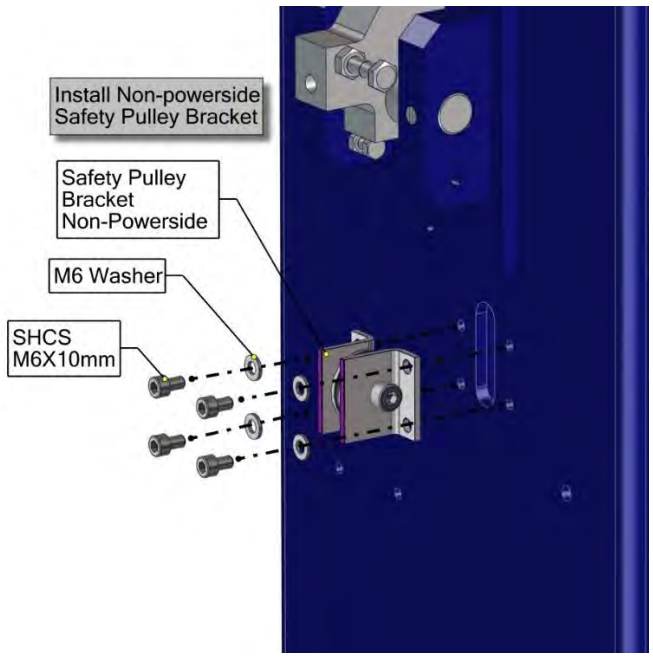
27. Install Non-Powerside Safety Latch System. See steps I-III below.



I.

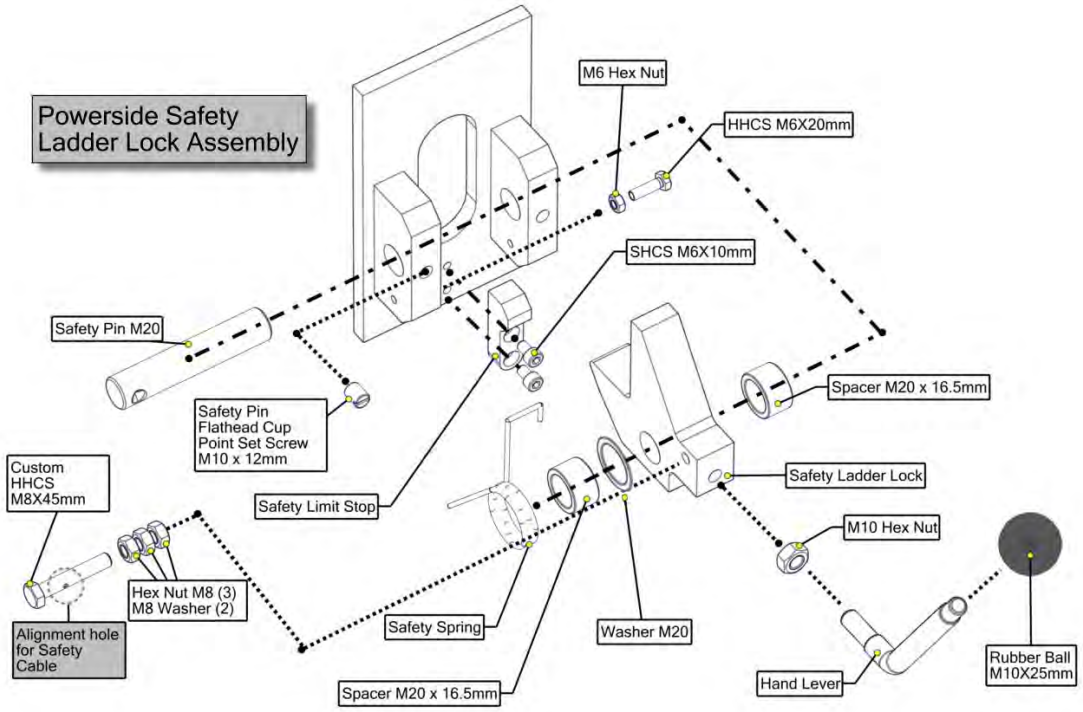


II.

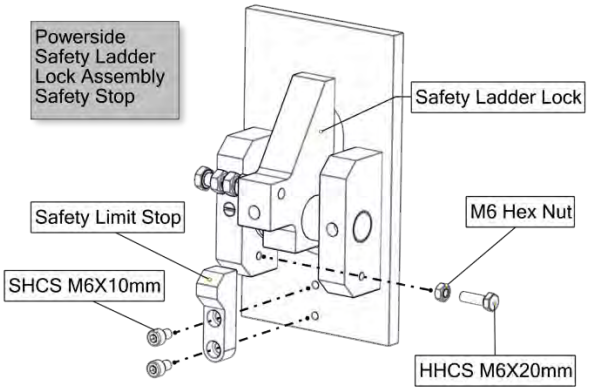


III.

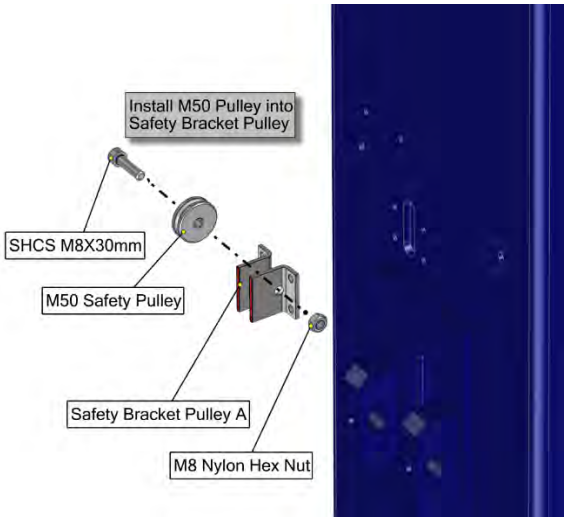
28. Install Powerside Safety Latch System. See steps IV-VII below.



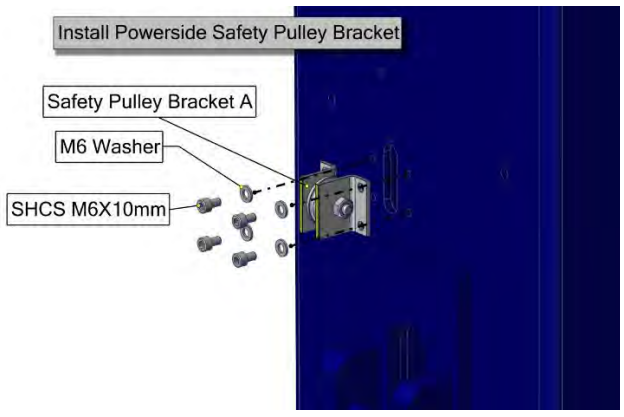
IV.



V.

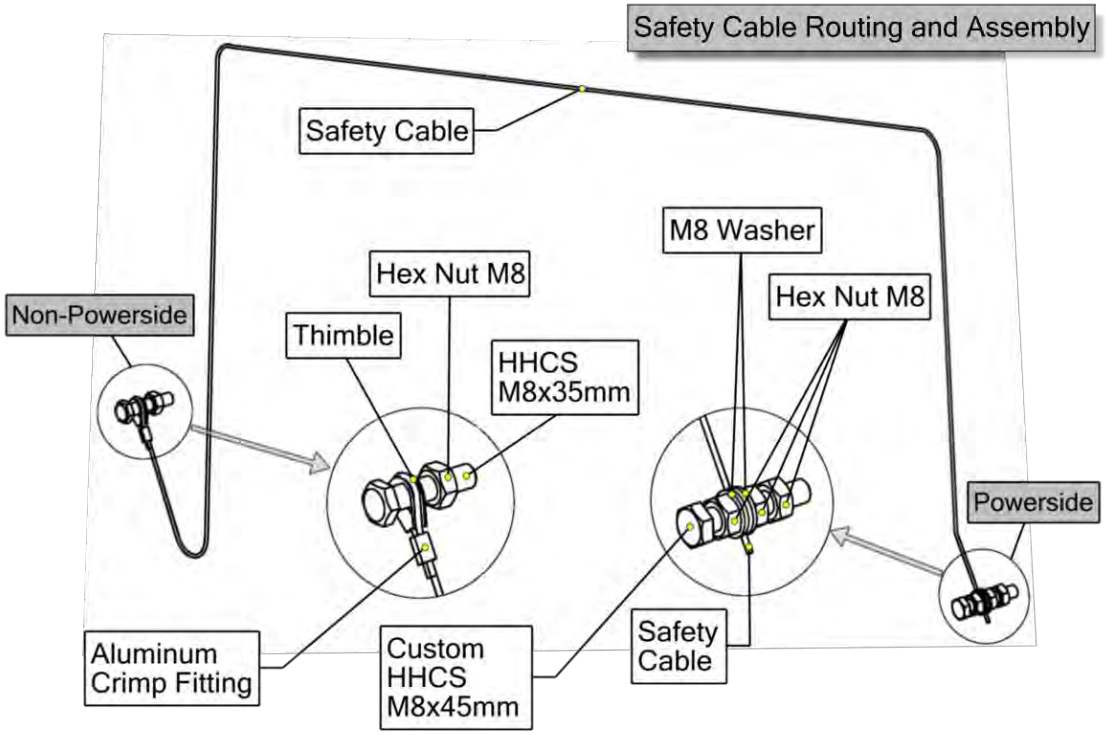


VI.

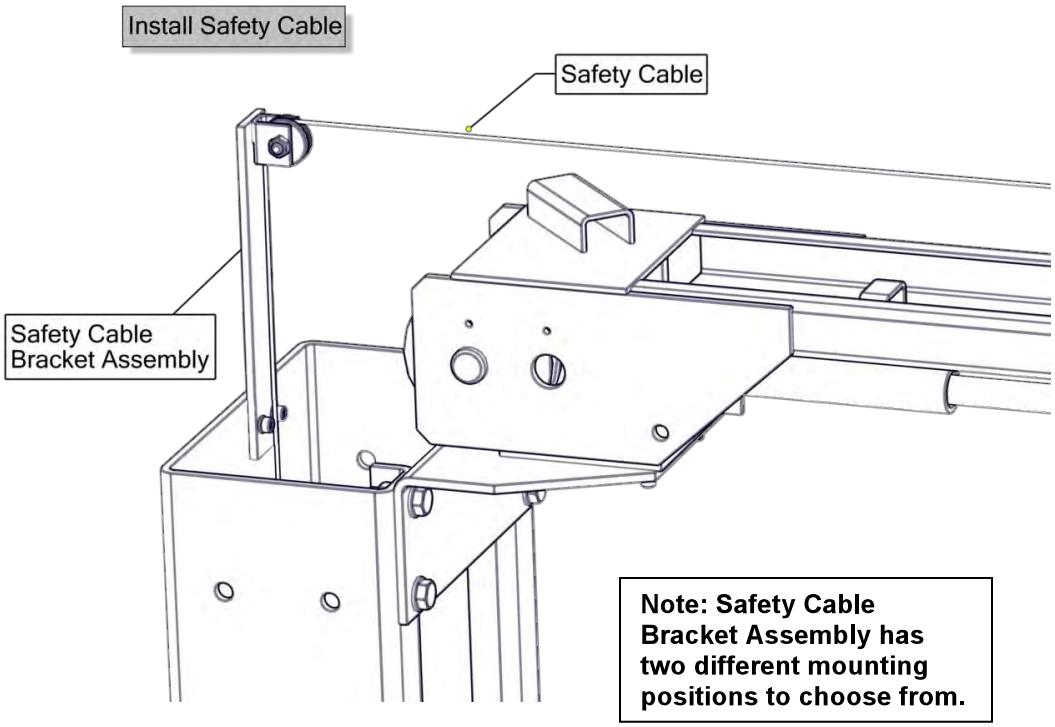


VII.

29. Install and route the safety cable on the inside of the columns.



#29



#29

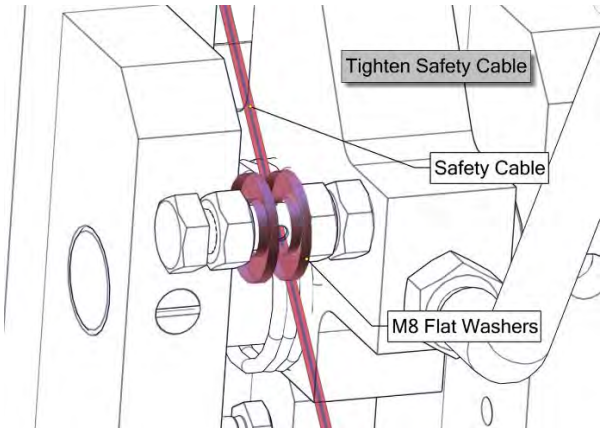
Note: Safety Cable Bracket Assembly has two different mounting positions to choose from.

30. Route the safety cable through the Custom M8x45mm HHCS and attach to Powerside safety latch assembly by tightening the M8 Hex Nuts and the M8 Flat washers together.
    Note: Before tightening check that cable is routed over all safety sheaves.
31. Verify the connection of the safety cable between the two latches. Check that the tension of the cable is tight. Pull the safety release handle several times and check the tension again by making sure both latches are adjusted correctly by pulling down on the power side Safety Lock Lever. The safety release locks will need to click at the same time when the handle is pulled and released. Retighten as needed until adjusted properly.
    Note: Do not over tighten as this will result in a malfunction of locking mechanisms.

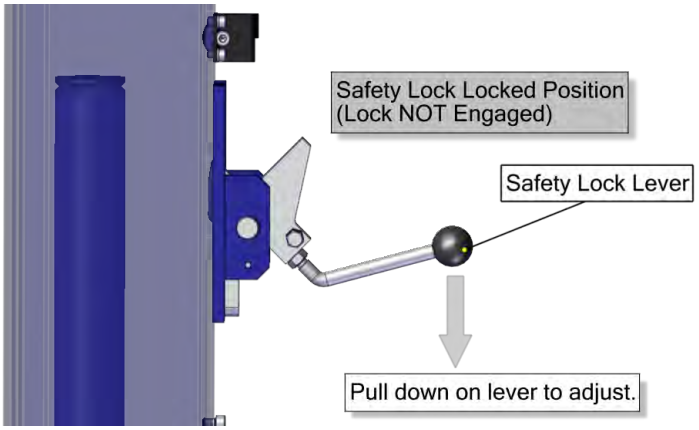
    Note: The safety cable will need to be adjusted periodically. The cable will stretch with-in the first few uses.

    ⚠ **CAUTION: Always verify that Both Safety Latches are released before lowering vehicle.**

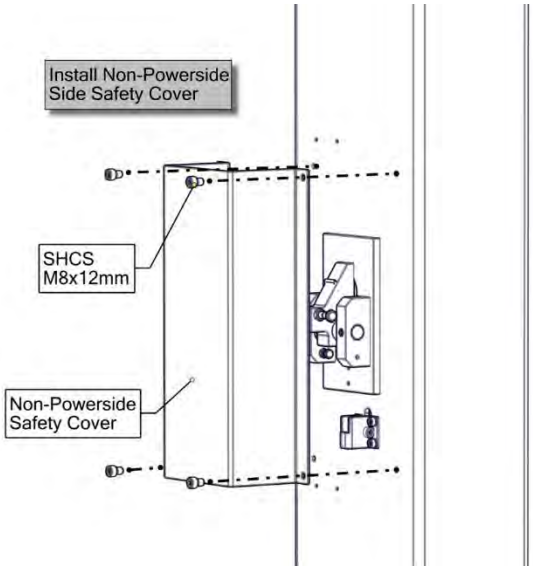
#30



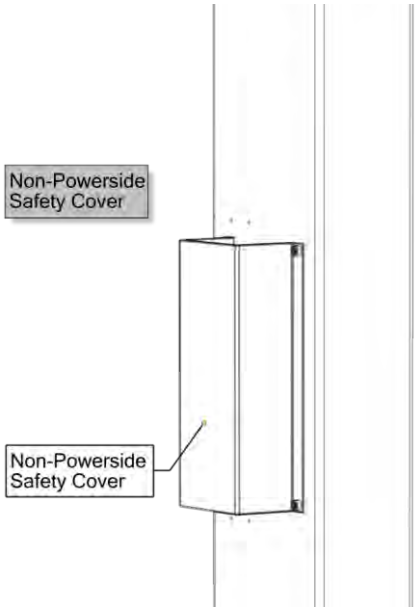
#31



32. Install Non-powerside safety cover.

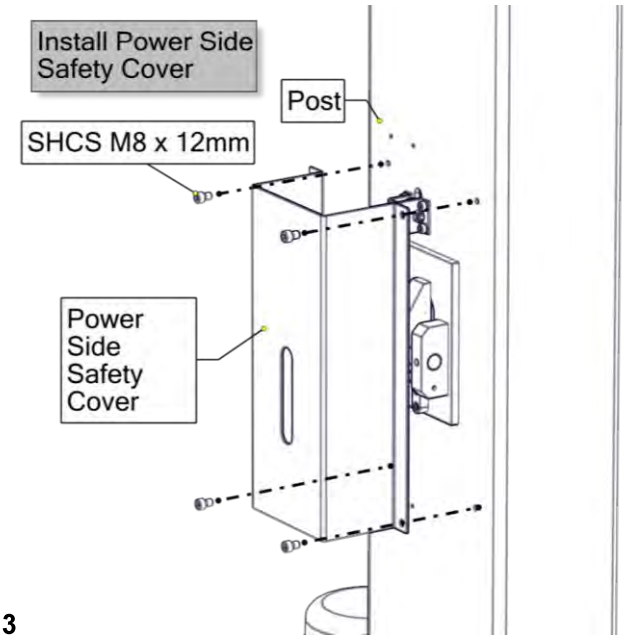


#32

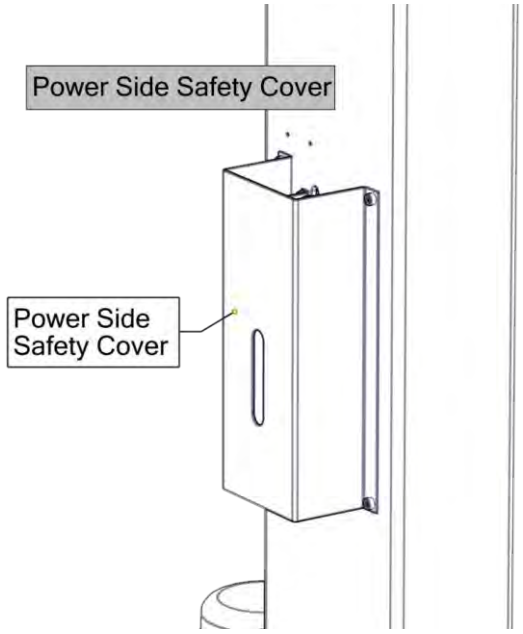


#32

33. Install Powerside safety cover.

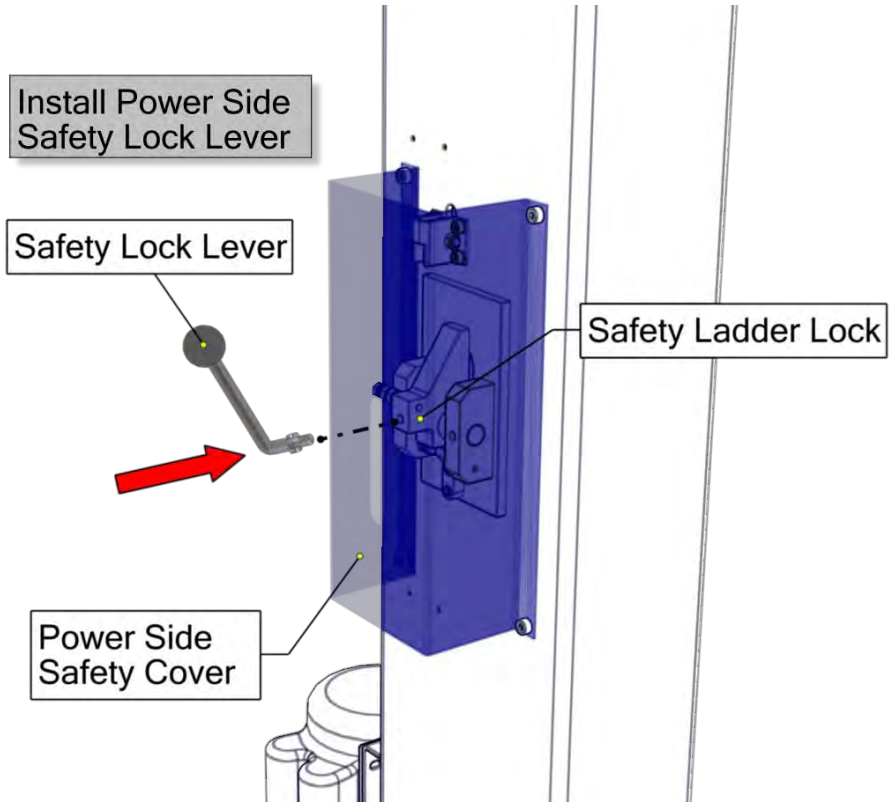


#33



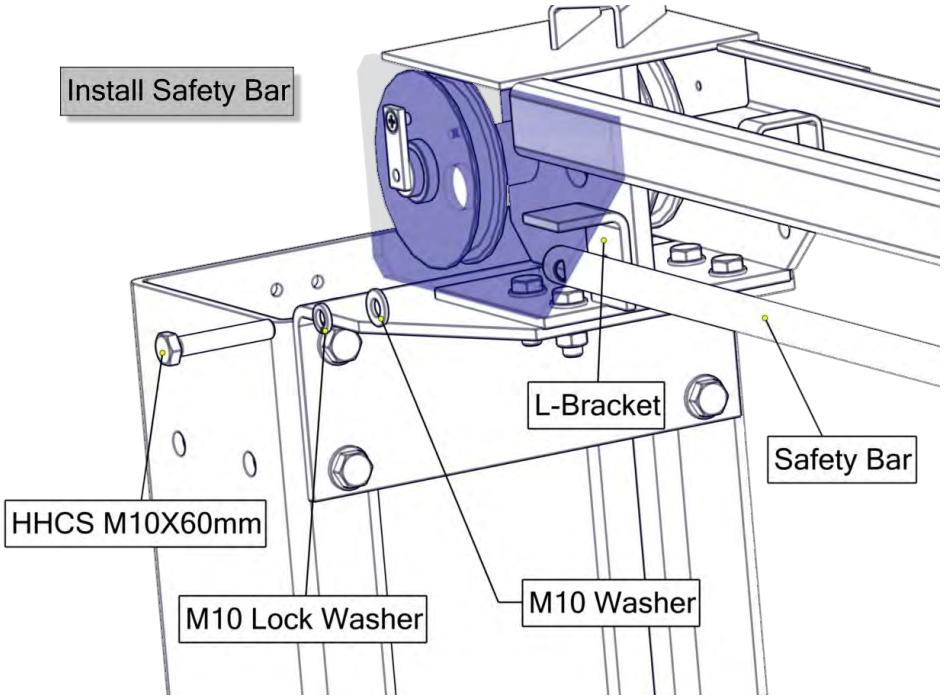
#33

34. Install Powerside Safety Lock Lever.



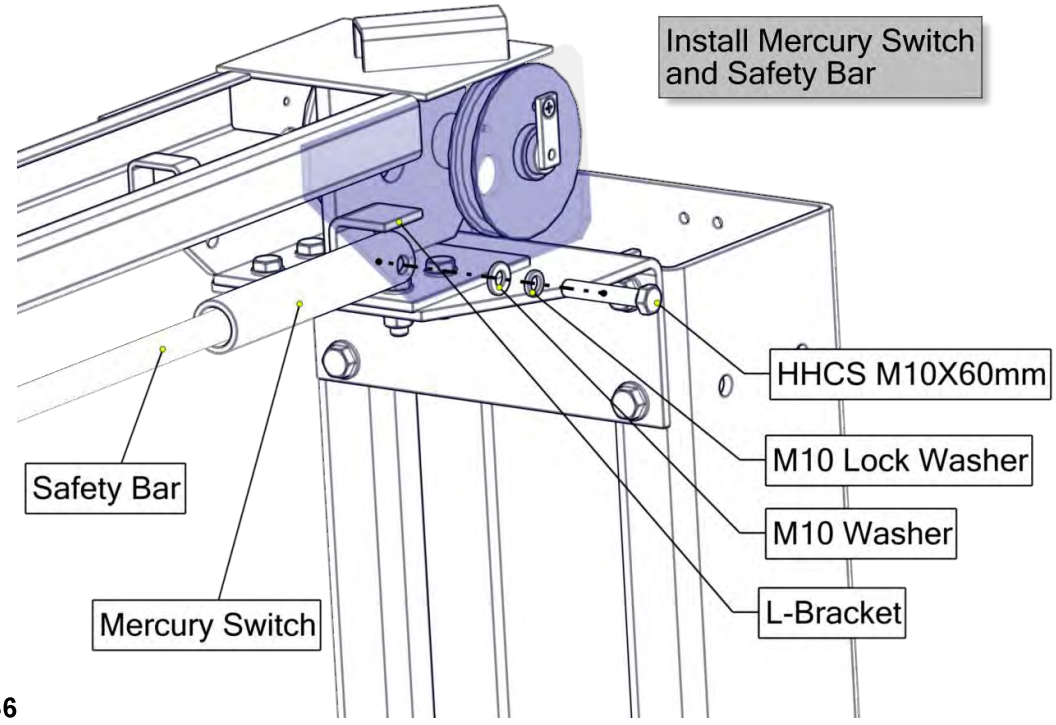
#34

35. Install the Safety Bar on the Non-Powerside.



#35

36. Install Safety Bar and Mercury Limit Switch on the Powerside.

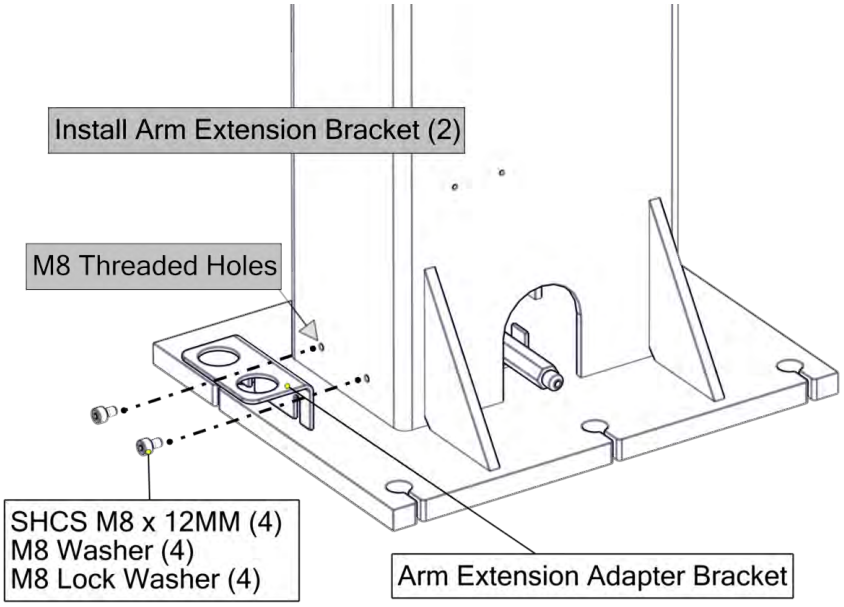


#36

37. Route Electrical Cable down outside of Powerside post. Leave wire to be connected to power unit.

38. Install the arm extension brackets on each post as shown below.

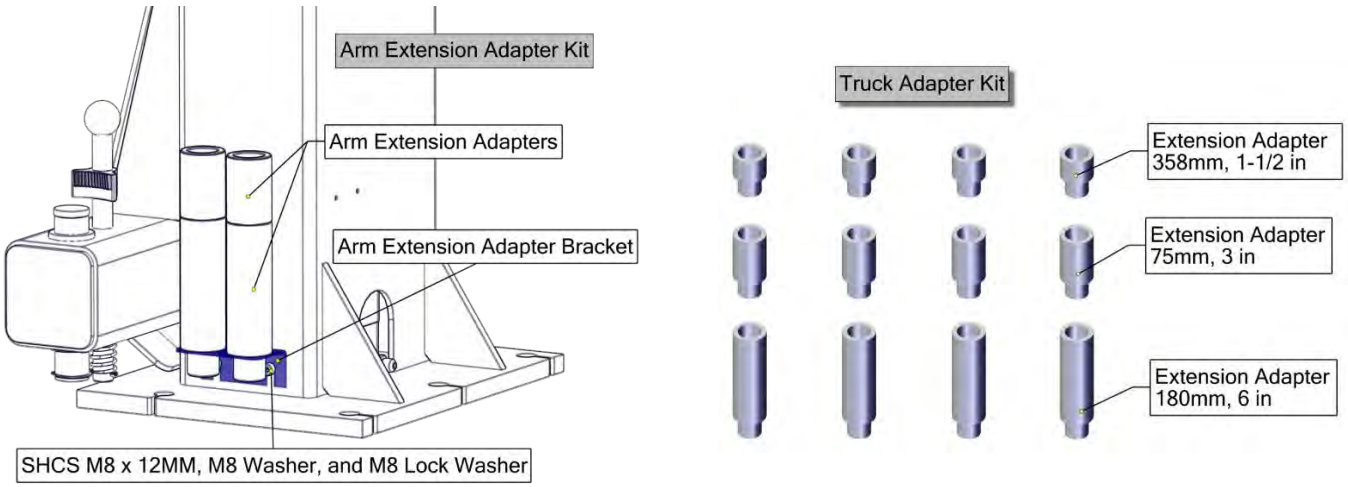
39. There is (1) bracket set to be installed on both the Powerside and Non-Powerside Posts.



#38

40. Place the Arm Extension Adapters into the arm extension adapter brackets on both the Power and Non-Powerside Posts.

    ✓ Truck Adapter kit included:
    (4) – 1.5 inch
    (4) – 3 inch
    (4) – 6 inch

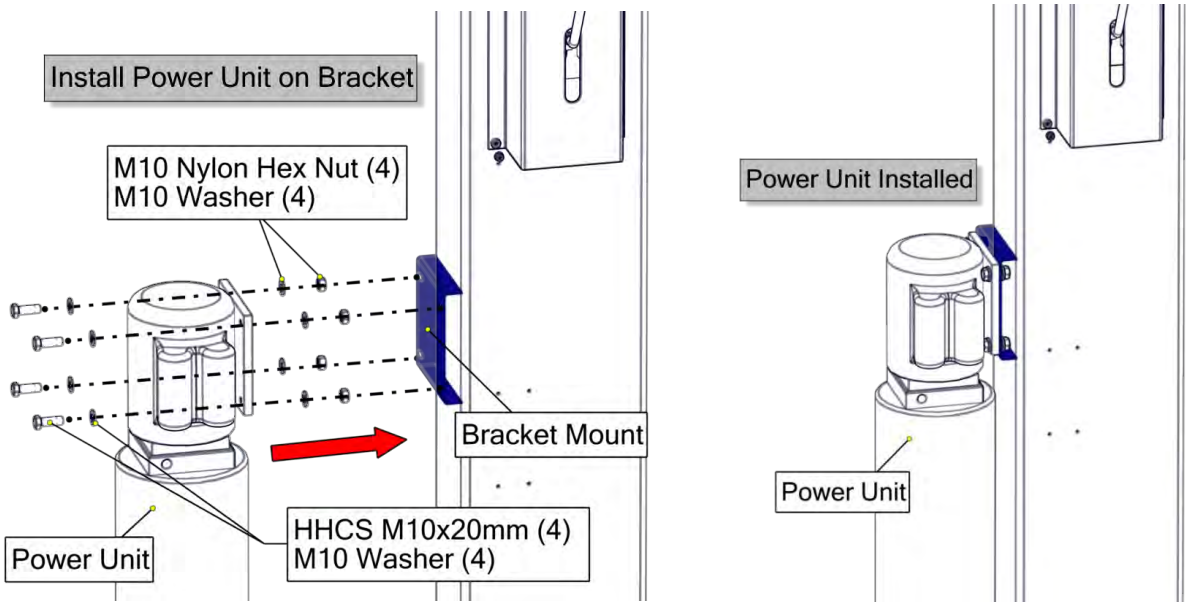


#40

Power Unit and Hydraulic System

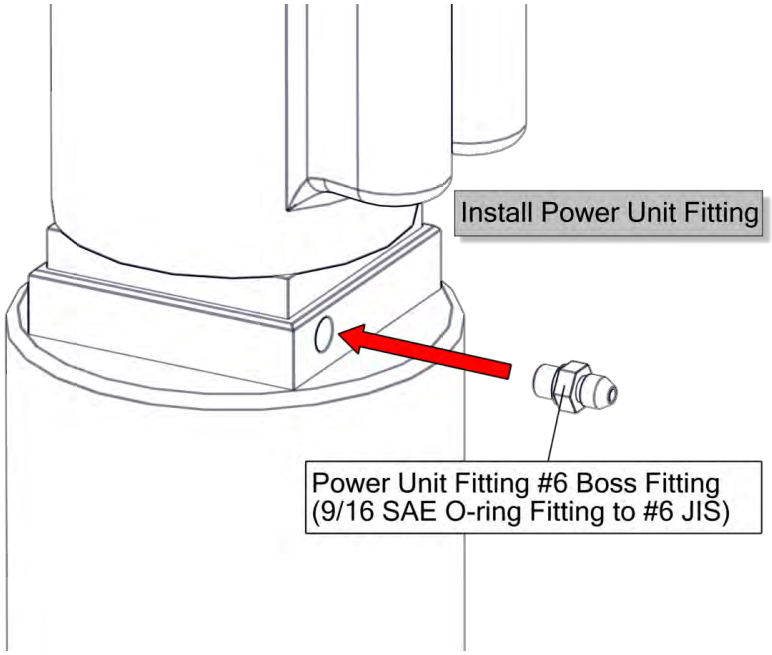
41. Install power unit.

42. Mount the power unit on the power side column bracket using the four M8 x 22mm HHCS, M8 washers, and M8 nylon lock nuts.



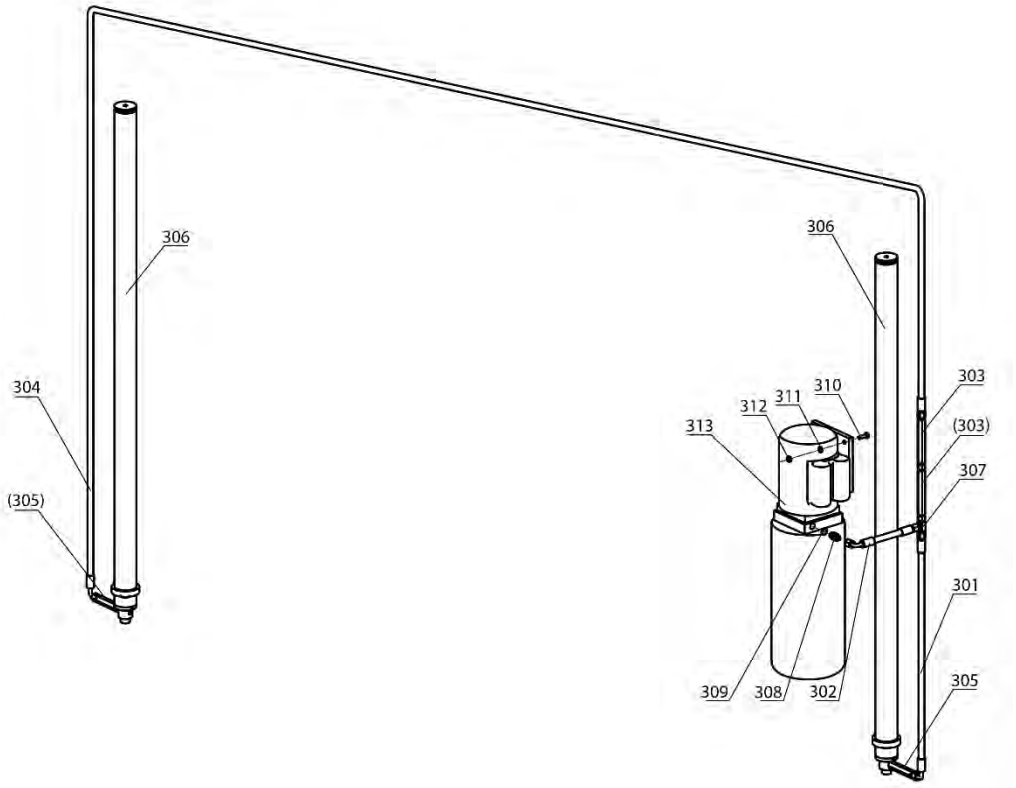
#42

43. Install the #6 SAE O-ring fitting on the power port.

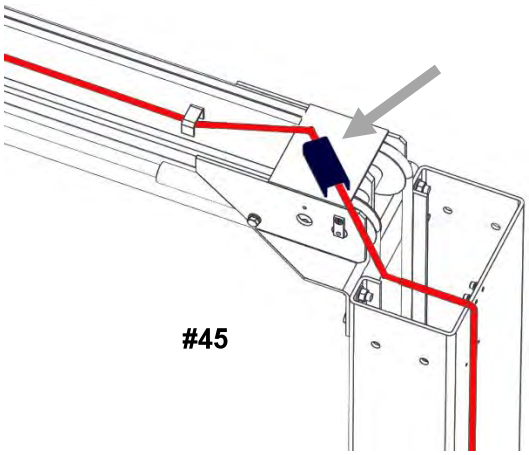


#43

44. Install the Hydraulic Hoses as shown in the routing image below.
NOTE:
If you have chosen to use the Medium width configuration (qty-1) Part - 303 “hydraulic hose extender” will need to be used on the power side connected above the t-fitting.
If you have chosen to use the Wide width configuration (qty-2) Part - 303 “hydraulic hose extender” will need to used on the power side connected above the t-fitting.

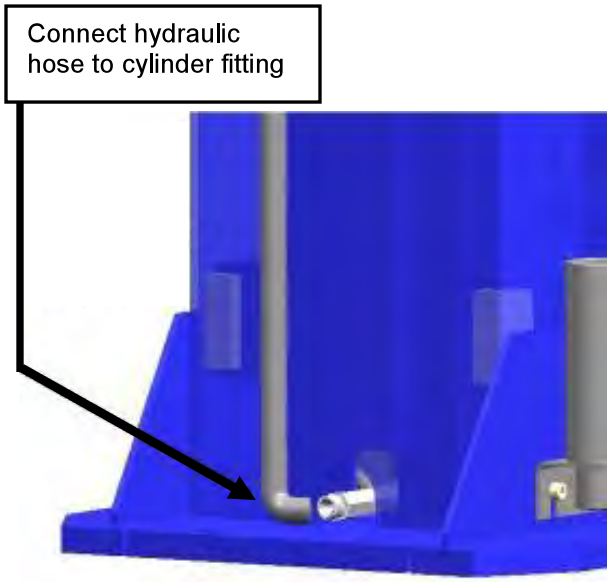


45. Route the long hose along the back of the columns and as shown in the crossover beam assembly. This will be completed on both the left and right sides. Hose must be routed through the brackets as shown to avoid any potential binding with the equalizer cables.



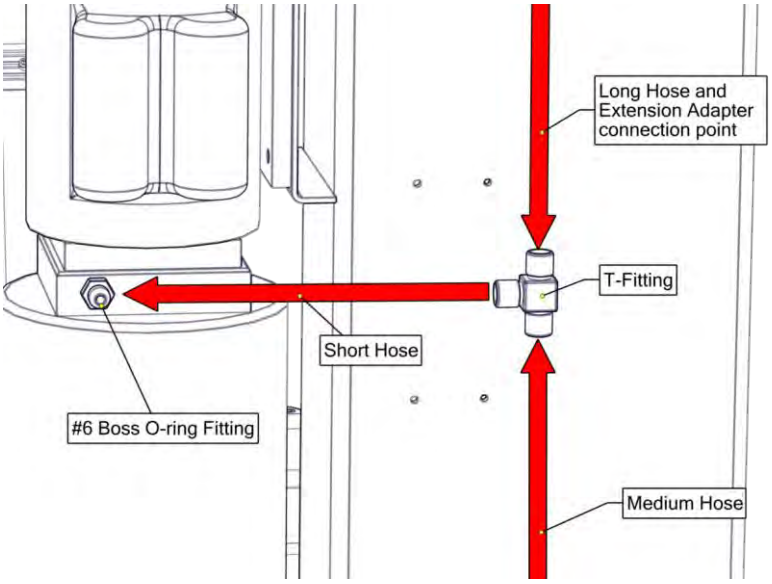
#45

46. Connect the long hose and the medium hoses to the hydraulic cylinder fitting.



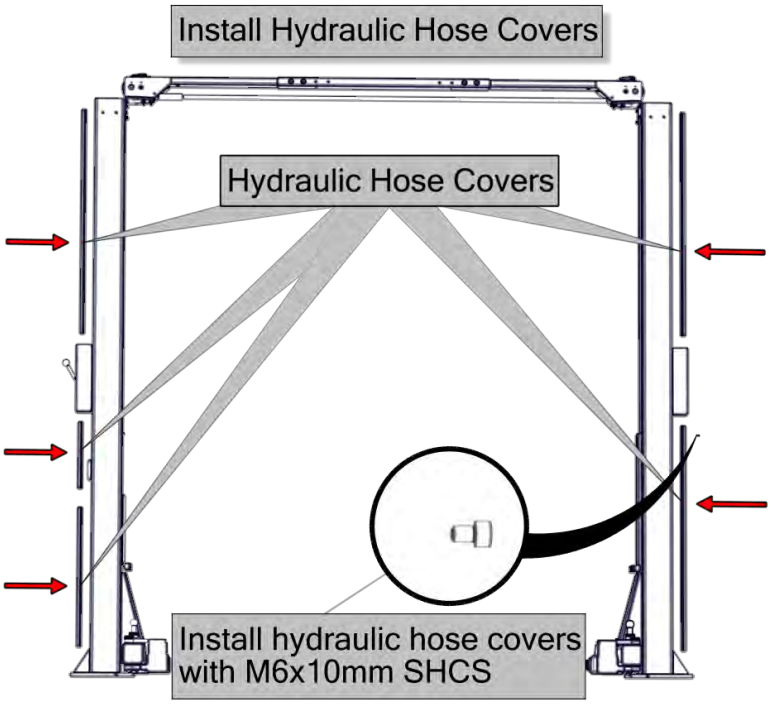
#46

47. Connect the power unit hose to the power unit fitting.
48. Connect the power unit hose to “T-fitting”.
49. Connect the long and medium hydraulic hoses to the “T-fitting”.
50. Secure the hoses and make sure all the connection fittings are tight.
51. Important: Make sure the long hose does not interfere with equalizing cable or safety cable.
    NOTE: DO NOT USE TEFLON TAPE WITH JIS FITTINGS IT WILL DAMAGE THE FITTINGS AS WELL AS CAUSE FAILURES AND OIL LEAKAGE.



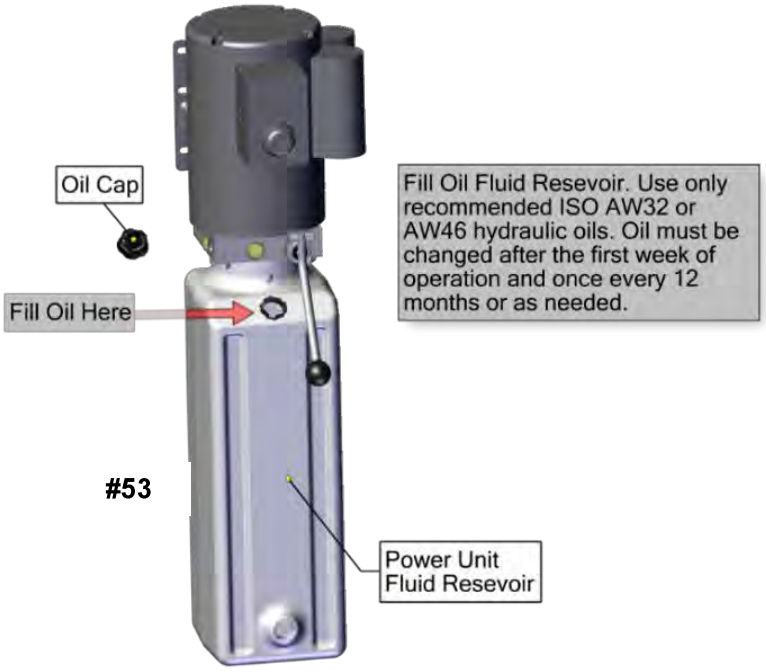
#47-51

52. Install the Hose Covers. There will be (5) sections to be installed. Follow diagram to install. Use the (26) M6x10mm SHCS to install hose covers.
    Note: Cover both the hydraulic hoses and Mercury Limit Switch Wire with the covers.



#52

53. Fill the Power Unit with hydraulic oil. Remove the oil vent cap from the power unit and fill the reservoir. Use a non-foaming, non-detergent hydraulic fluid Ten Weight (Hydraulic Oil ISO AW32). The unit will hold approximately 4 to 5 gallons depending on tank size different amounts of fluid may be required.



Hydraulic Oil ISO AW32 Attributes:

Flash Point (°F):	350
ISO Viscosity Grade (ISO-VG):	32
Maximum Operating Temperature (°F):	300
Plastic Safe:	Yes
Pour Point (°F):	-30

IMPORTANT POWER-UNIT INSTALLATION NOTES

⚠ DO NOT run power unit without oil. Damage to pump can occur.
⚠ The power unit must be kept dry. Damage to power unit caused by water or other liquids such as detergents, acid etc., is not covered under warranty.
⚠ Improper electrical connection can damage motor and will not be covered under warranty.
⚠ Motor works with both 50Hz and 60Hz.
⚠ Use a separate breaker for each power unit.
⚠ Protect each circuit with time delay fuse or circuit breaker.
⚠ For 208-230 volt, single phase, manufacturer recommends using a 25-amp fuse.

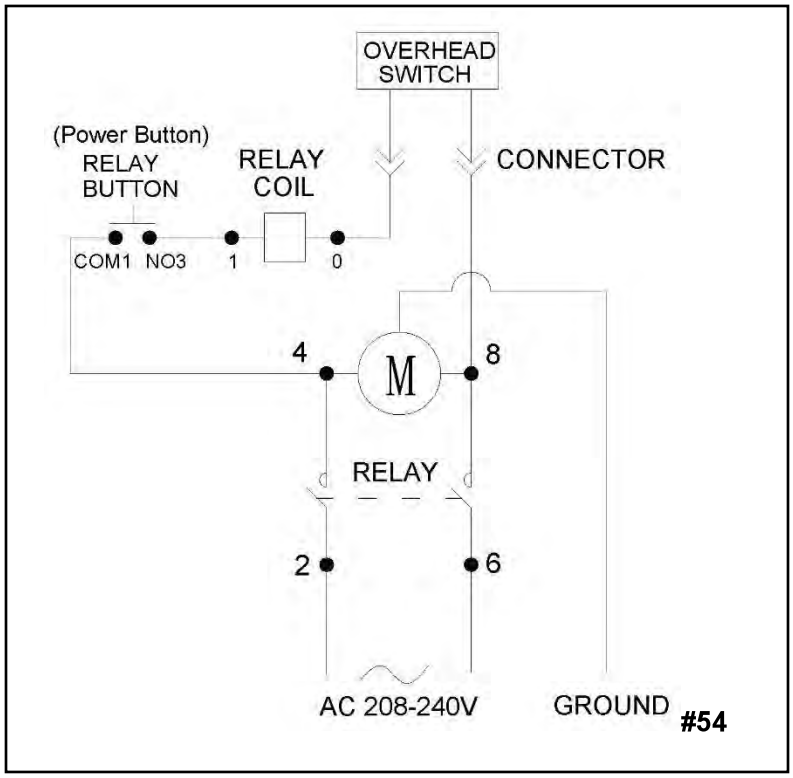
INSTALLATION AND ADJUSTMENT.

⚠ DO NOT attempt to raise vehicle until a thorough operation check has been completed.
⚠ ALL WIRING MUST BE PERFORMED BY A CERTIFIED ELECTRICIAN ONLY.
⚠ SEE WIRING INSTRUCTIONS AFFIXED TO MOTOR FOR PROPER WIRING INSTRUCTIONS.

54. Connect the Electrical hookup to the power unit; 208-240VAC Single Phase. Use wire capable of supporting a 25-amp circuit. Longer Electrical Runs may require a larger diameter electrical wire.

⚠ **WARNING: A certified electrician must install any and all electrical wiring. Protect each circuit with a time delay fuse or circuit breaker; 208v-240v single phase 50/60 Hz 25 amp. Requires AWG 10 Wire. Do not adjust power unit pressure relief valve, any tampering will void warranty and may cause catastrophic failure. Failure to head these warnings may result in injury or death.**

Wiring Schematics for Overhead Mercury Safety Switch (Use Motor option that applies.)



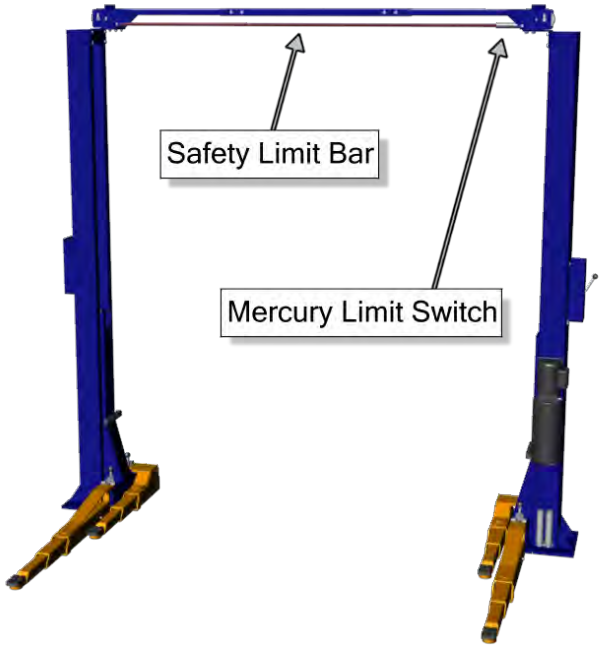
55. **Test Power to Lift**, verify power unit is functioning properly. Raise the lifting carriages 18 inches and lower to the resting position. **Review the "How to Operate Lift" section**.

Safety Limit Bar Mercury Switch

56. **VERIFY AND TEST OPERATION** of the Mercury Limit Switch.
57. While pressing press the power “on” button, use a long stick to push upward on the Safety Limit Bar. Verify that the mercury switch is operating correctly. Operate lift and apply pressure to mercury switch with a piece of non-conductive material to push down on switch. A chance of shock could occur if wiring has been installed incorrectly. This will insure motor shuts off prior to any part of vehicle coming in contact with overhead crossbeam or preset height restrictions mercury switch location.
58. The power unit should automatically TURN OFF.
59. When motor shuts off while pushing “ON” button the motor will stop automatically.
60. The lift is now operating properly.

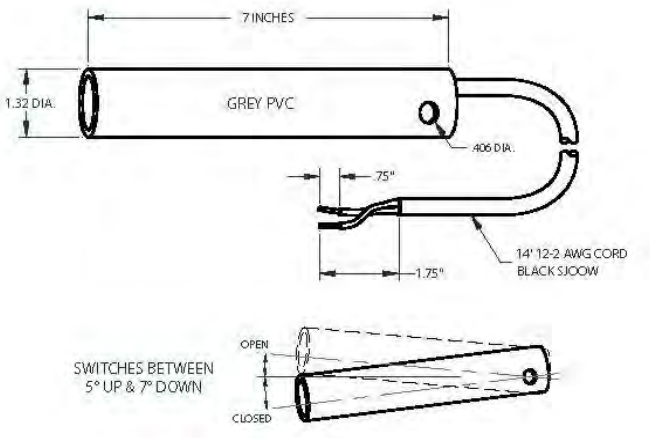
⚠ **WARNING:**

Lock Out electrical supply before installing any electrical components or performing maintenance on the lift. Do not ever allow power supply to be connected when working on or repairing lift.



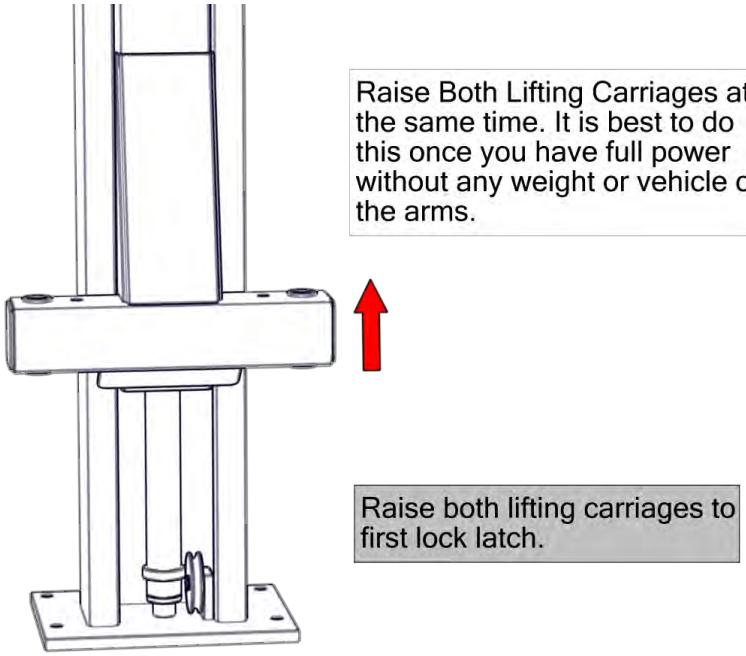
#56 to #60

<u>Note: Mercury Switch operates between “5 degrees up” and “7 degrees down”.</u>



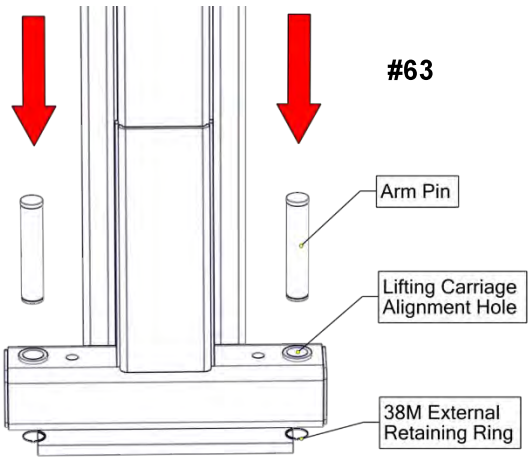
LIFT ARMS

61. Install Lift arms.
62. Raise both lifting carriages at the same time once power has been turned onto the power unit.

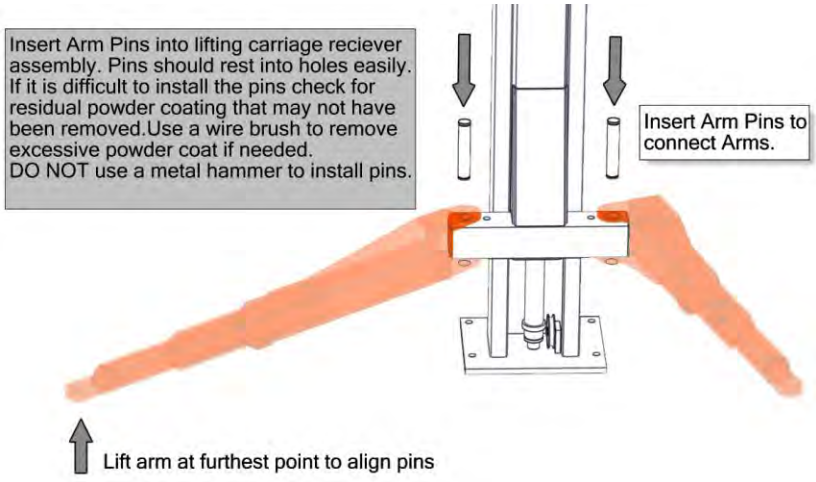


#62

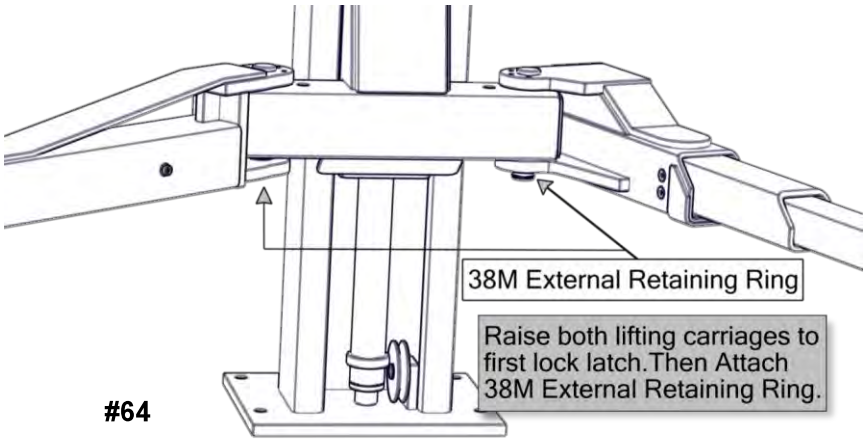
63. To install the lifting carriage arm, drop pins, first test fit the Arm Pins into the lifting carriage receiver assembly without the arms. The arms pins should rest in the holes easily. If arm pins are fitting to tight remove the residual powder coating by using a wire brush to clean the holes. The drop pins should then slide easily and fit snug.
    Note: Do not use a grinder to clean the holes, this could cause an over-sizing of the holes which would result in the arm pins not fitting securely and safely.



#63



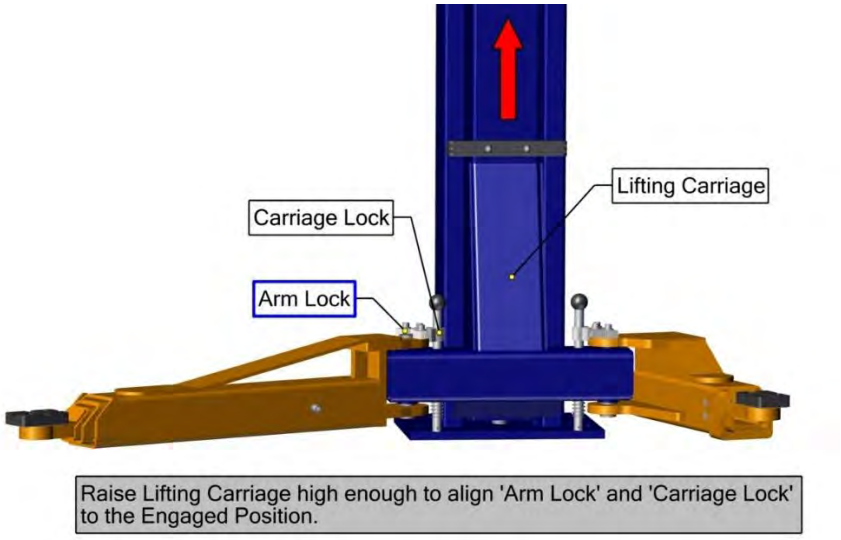
64. Install 38M External Retaining Ring on all lift arm drop pins.



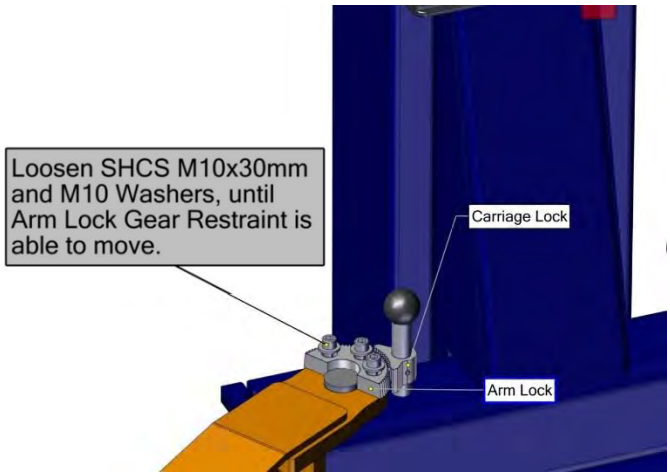
#64

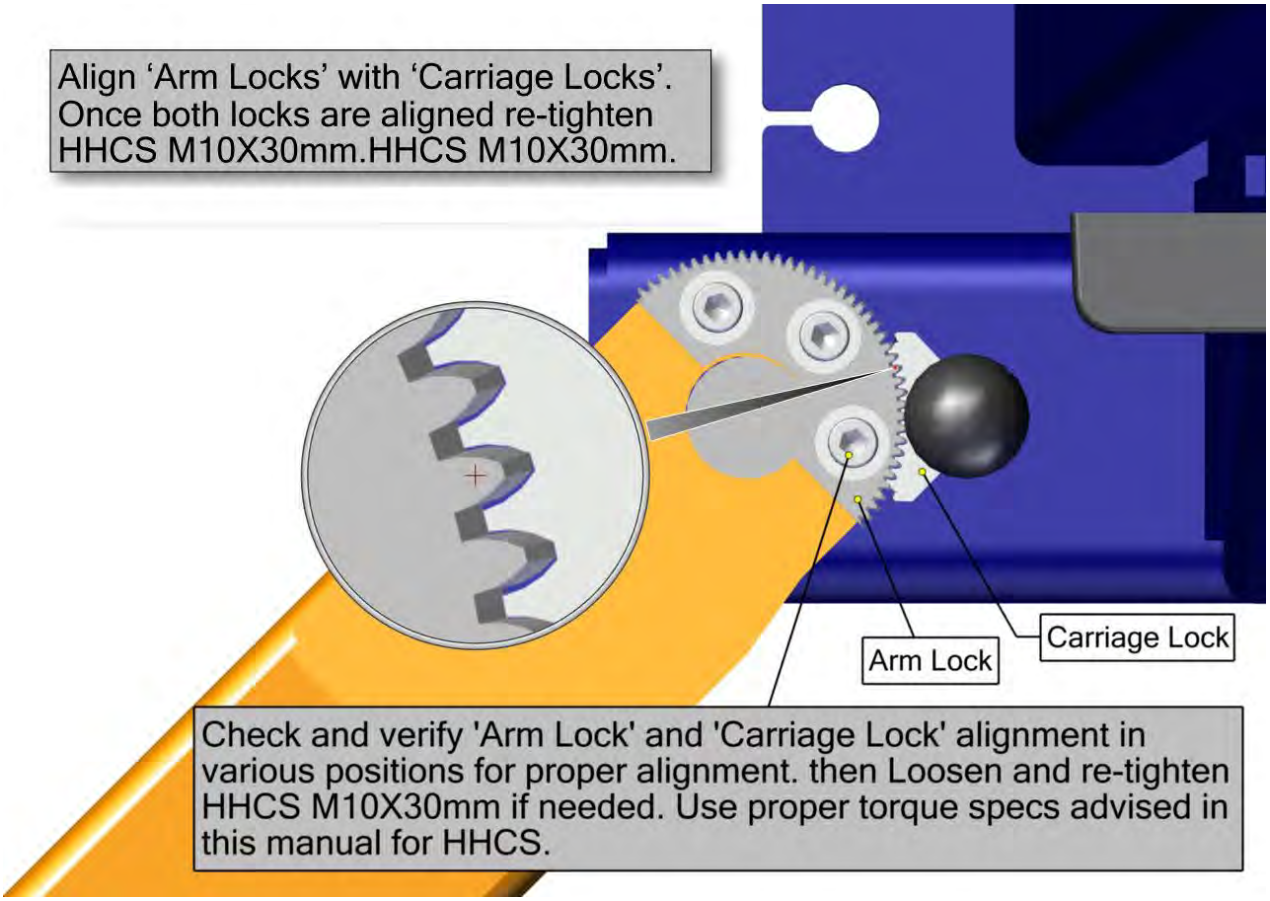
65. Check the fitment of the “half-moon” gear restraints on each lifting arm are already installed. Position the lifting arms on the carriages. Check for proper engagement of the arm restraints (arm locks). The safety gear restraints should fully engage the gear restraints on the arm. After checking that the safety gear restraints and arm gear engage properly. Verify that Allen Bolts on gear restraints are tight and secure.

a.



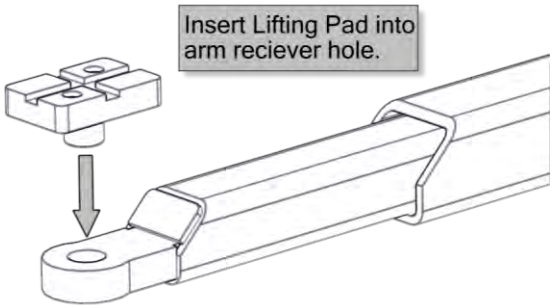
b.





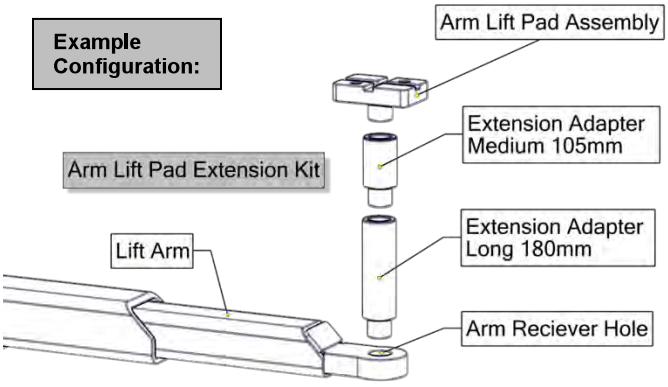
c.

66. Attach Lift Pad to Lift Arms, by inserting the lift pad into the arm receiver hole.



#66

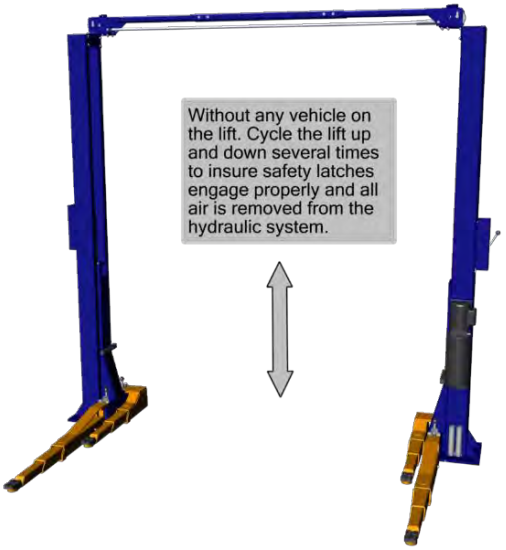
67. Test fit all Truck Adapters and return to storage locations when complete.



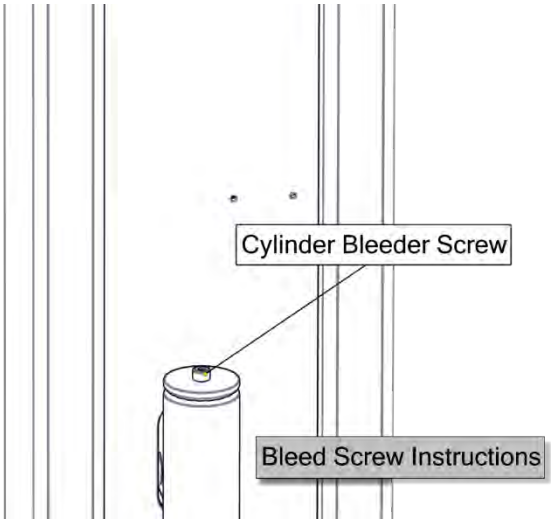
#67

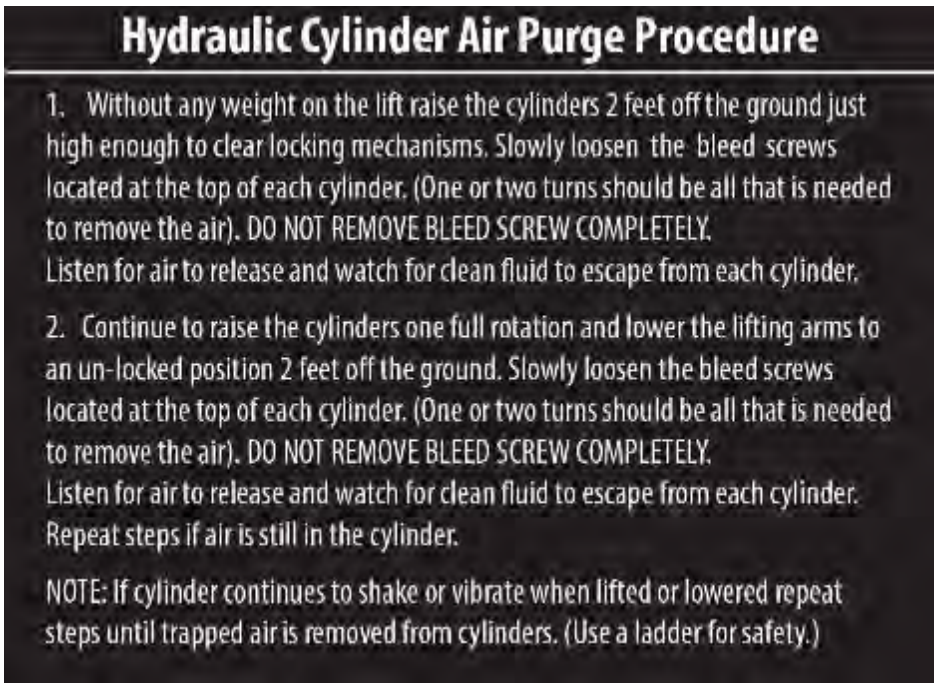
Air Purge Procedure

68. Without any weight on the lift raise the cylinders 2 feet off the ground just high enough to clear locking mechanisms. Slowly loosen the bleed screws located at the top of each cylinder. (One or two turns should be all that is needed to remove the air). DO NOT REMOVE BLEED SCREW COMPLETELY. Listen for air to release and watch for clean fluid to escape from each cylinder.
69. Continue to raise the cylinders one full rotation and lower the lifting arms to an unlocked position 2 feet off the ground. Slowly loosen the bleed screws located at the top of each cylinder. (One or two turns should be all that is needed to remove the air). DO NOT REMOVE BLEED SCREW COMPLETELY. Listen for air to release and watch for clean fluid to escape from each cylinder. Repeat steps if air is still in the cylinder.
    NOTE: If cylinder continues to shake or vibrate when lifted or lowered repeat steps until trapped air is removed from cylinders. (Use a ladder for safety.)



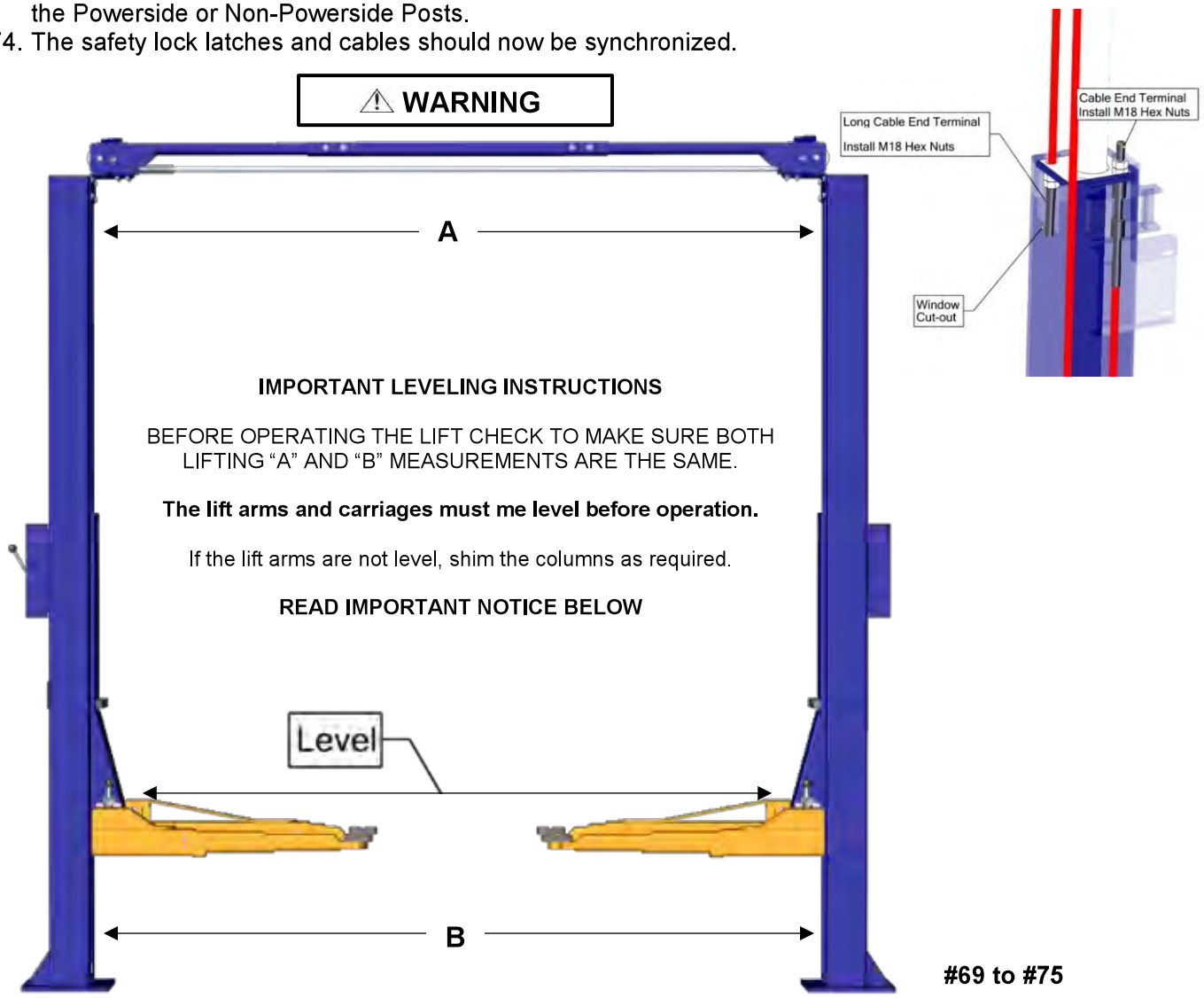
#68





Synchronizing Equalizing Cables and Locks

70. Without any vehicle on the lift. Cycle the lift up and down several times to insure safety latches engage properly and all air is removed from the hydraulic system. To lower the lift, first raise the lift to clear the safety latches, then pull down the safety release handle to lower the lift.
71. Raise lift and **LISTEN**. You will hear the lock latches begin to hit and release as the lift is being raised. After 3 or 4 clicks you will hear the latches synchronizing at the same time. If the safety latches are out of synchronization you will have to re-adjust the equalizing cables.
72. If safety latches are out of sync, adjust the cable on the latch that engages first.
73. To adjust, tighten the Long Cable End Terminal on the latch that is engaging first. This could be either the Powerside or Non-Powerside Posts.
74. The safety lock latches and cables should now be synchronized.



#69 to #75

⚠ WARNING:

75. **Equalizing Cables Important Notice: Equalizing Cables must be checked with each daily inspection for equal tension. The cables should always be adjusted so that they are equal tension when resting on the safety locks. Failure keep cables synchronized could cause DANGER and will cause uneven lifting. Equalizing cables should always be adjusted so that safety latches are in sync. Always check that both safety latches are engaging on the appropriate latch.**

76. Lubricate the four inside corners of the columns with heavy duty bearing grease.

77. Complete Post Installation Procedure.

78. WITHOUT ANY WEIGHT ON THE LIFT TEST CYCLE THE LIFT TO VERIFY LIFT IS OPERATING AS INTENDED.

- SEE “OPERATOR TRAINING and SAFE PRACTICES” and “HOW TO OPERATE LIFT” prior to first use.

POST INSTALLATION PROCEDURE:

✓ Check boxes to verify work has been completed

	Electric wired by a professional technician.
	Power unit functioning properly.
	With the in lift in the lowered position, check that the hydraulic fluid level is full. If needed, add oil as described in the Installation Instruction section of this manual.
	Check for “no” hydraulic leaks.
	Check that all posts are square and plumb.
	Lubricate posts with grease. Lubricate the four inside corners of the columns with heavy-duty bearing grease as needed.
	Inspect lifting arms making sure they are functioning properly.
	Visually inspect safeties for proper operation. Check all arm adjusting locks for proper operation.
	Check lifting carriage gear restraints securely fastened.
	Inspect all arms pins making sure they are properly secure.
	Inspect that arm pads are in good condition.
	Check that lift arms are level and synchronized.
	Check equalizer cable tension, and adjust if necessary, see manual instructions.
	Check all cables connections, bolts and pins to ensure proper mounting and torque.
	Check safety latch synchronization: Safety latches should click at the same time. If necessary, adjust equalizing cables as described in the Installation Instruction section of this manual.
	Lubricate all Cable Sheaves.
	Check tightness of all bolts, nuts, pins, and hardware. Re-tighten as needed. See installation manual torque specified ratings.
	Inspect all anchors bolts and retighten if necessary. Re-torque as needed. See installation manual for instructions.
	Inspects all roll pins and sheave pins are in proper alignment and secured.
	Make a visual inspection of all moving parts and check for excessive signs of wear.
	Check for no overhead obstructions.
	If lift is equipped with an overhead stop bar, check for proper operation.
	Test mercury switch operation.
	Check all warning labels and power unit safety stickers are in good condition. Replace all caution, warning or safety related decals on the lift if unable to read or missing. Reorder labels from manufacturer.
	All components functioning properly.
	All integral moving parts lubricated.
	Working area clean.
	Operation, maintenance and safety manuals in designated location.