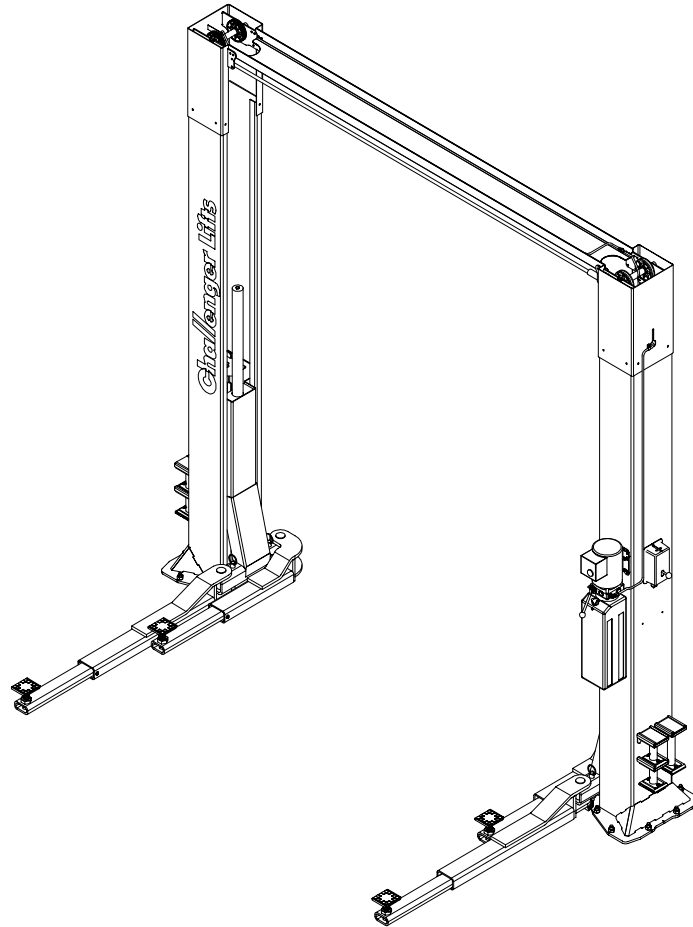


# INSTALLATION, OPERATION & MAINTENANCE MANUAL

## *Versymmetric™* Two Post Surface Mounted Lift



## MODEL CL10

200 Cabel Street, P.O. Box 3944 Louisville, Kentucky 40201-3944  
Email: [sales@challengerlifts.com](mailto:sales@challengerlifts.com) Web site: [www.challengerlifts.com](http://www.challengerlifts.com)

**Office 800-648-5438 / 502-625-0700 Fax 502-587-1933**

**IMPORTANT: READ THIS MANUAL COMPLETELY BEFORE  
INSTALLING or OPERATING LIFT**

## GENERAL SPECIFICATIONS

See Figure 1	CL10	CL10-2
<b>A</b> Column Height	11'- 8"	13'- 8"
<b>B</b> Floor to Overhead Switch	11'- 2 1/2 "	13'- 2 1/2"
<b>C</b> Rise Height ( <i>Screw Pads Highest Position</i> )	74 5/8"	
<b>D</b> Cylinder Height ( <i>Full Stroke</i> )	11'- 11"	
<b>E</b> Adjustable Overall Width	11'- 11" / 11' – 6 1/2"	
<b>F</b> Screw Pad Height	4 1/8" to 6 5/8"	
<b>G</b> Inside of Columns	114 1/2" / 110"	
Drive Thru Clearance	104 1/2" / 100"	
* Maximum Capacity	10,000 lbs. (2500 lbs. Per Arm)	
Lifting Time	48 Sec. (approximate)	
Motor	2HP, Single Phase, 60Hz, 208/230 Optional – 2HP, Three Phase, 50/60Hz, for 208 or 230 or 460	

\* Lift capacity ratings are based on loads equally distributed on all four arms.

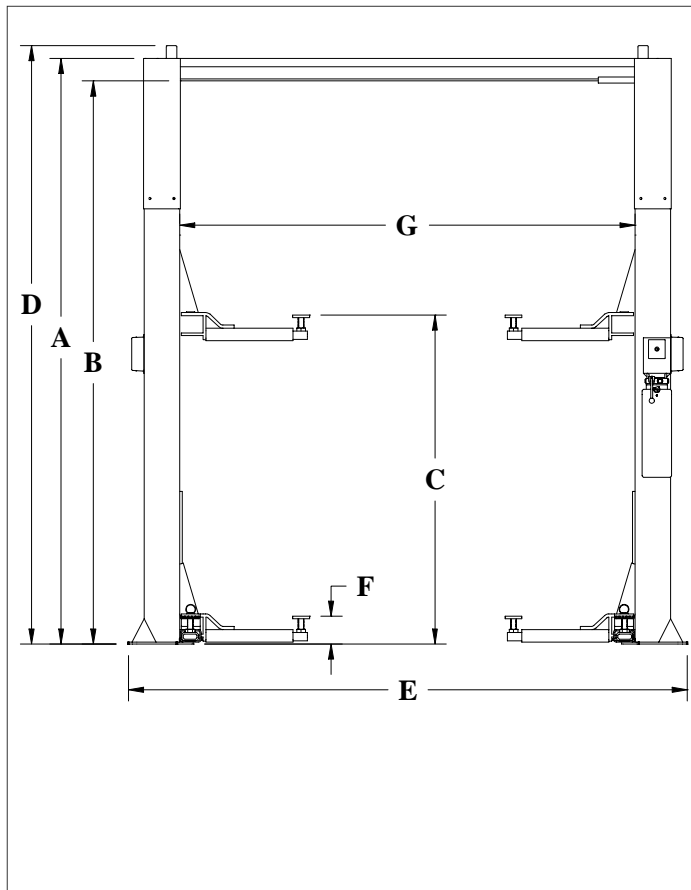


Fig 1a - General Specifications

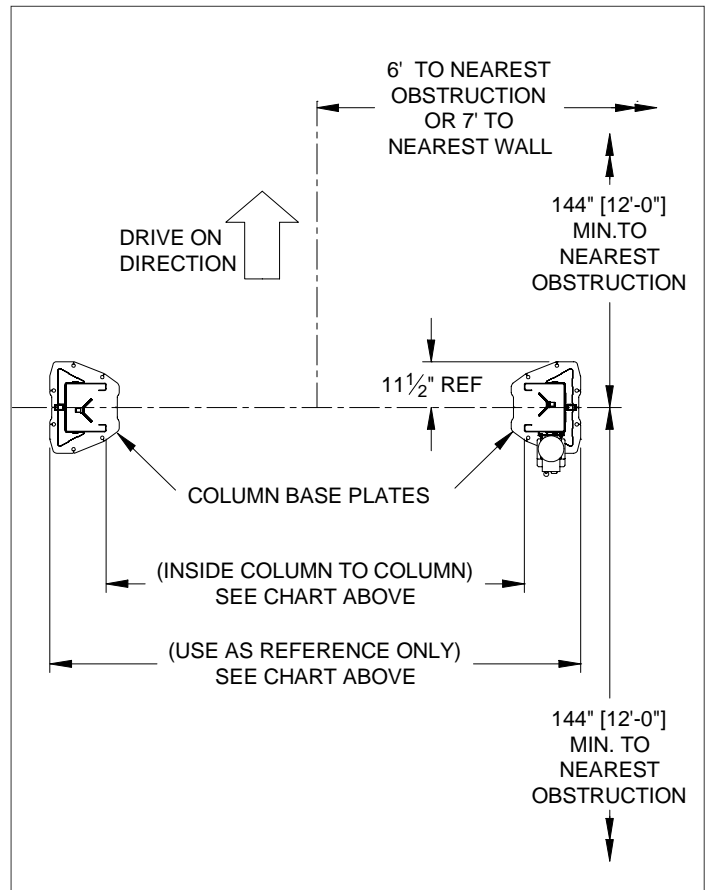


Fig1b - Service Bay Layout

## VERTICAL CLEARANCE

Check the height of the area where the lift is to be installed. Clearance should be calculated based on the full raised height of the lift.



Failure by purchaser to provide adequate clearance could result in unsatisfactory lift performance, property damage, or personal injury.

## FLOORING

Be certain you have the proper concrete floor to properly handle the loaded lift. Floor should be in generally good condition with no large cracks, spalling or deterioration.

**Minimum requirements for concrete are 4 inches minimum depth, with steel reinforcement, 3500 psi, cured for 28 days per local commercial practice.** Floor should be level within 3/8 inch over the installation area. No anchors should be installed within 8 inches of any crack, edge, or expansion joint. If these conditions cannot be met, a pad may be poured to accommodate the lift.

Check with local building inspectors and/or permits office for any special instructions or approvals required for your installation.



Failure by purchaser to provide the recommended mounting surface could result in unsatisfactory lift performance, property damage, or personal injury.

## ELECTRICAL REQUIREMENTS

**For lift installation and operation for single phase units, it is necessary to have a dedicated circuit with a double pole 25 amp circuit breaker or time delay fuse.**

## SAFETY NOTICES AND DECALS

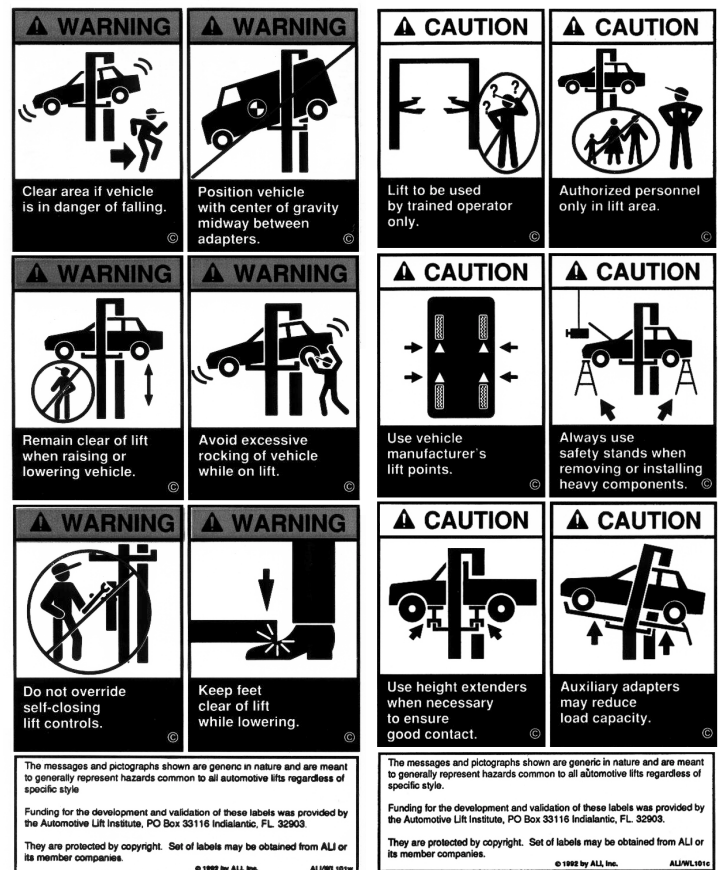
For your safety, and the safety of others, read and understand all of the safety notices and decals included here.

**READ ENTIRE MANUAL BEFORE ASSEMBLING, INSTALLING, OPERATING, OR SERVICING THIS EQUIPMENT. PROPER MAINTENANCE AND INSPECTION IS NECESSARY FOR SAFE OPERATION. DO NOT OPERATE A DAMAGED LIFT.**

Safety decals similar to those shown here are found on a properly installed lift. Be sure that all safety decals have been correctly installed on the Power Unit reservoir. Verify that all authorized operators know the location of these decals and fully understand their meaning. Replace worn, faded, or damaged decals promptly.



Do not attempt to raise a vehicle on the lift until the lift has been correctly installed and adjusted as described in this manual.



RECEIVING

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgement by the carrier of receipt in good condition of shipment covered by our invoice.

If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation on the freight bill of the shorted or damaged goods. Do this for your own protection.

NOTIFY **Challenger Lifts** AT ONCE if any hidden loss or damage is discovered after receipt.

IT IS DIFFICULT TO COLLECT FOR LOSS OR DAMAGE AFTER YOU HAVE GIVEN THE CARRIER A CLEAR RECEIPT.

File your claim with **Challenger Lifts** promptly. Support your claim with copies of the bill of lading, freight bill, and photographs, if available.

**Component Packing List**

PART #	QTY/ LIFT	DESCRIPTION
A2001-P	1	Power Column Ass'y
A2001-I	1	Idler Column Ass'y
A2060	1	Overhead Beam
A2005	1	Hardware Box
A2002	1	Arm Pack
A2055 - *	2	Column Extensions
A2003 - *	1	Sync Cable Pack
36035	1	Overhead Shut-Off Bar Ass'y
36027	1	Mercury Switch
A2004	1	Hydraulic Line Pack
A1201-17 A1203-17	1	Power Unit – 1 Phase Power Unit – 3 Phase
A2150	1	Literature Pack

\* These parts vary by lift model,  
for CL10 (\* = 0)  
for CL10-2 (\* = 2)

**INSTALLATION**

TOOLS (MINIMUM REQUIRED)

- a. Tape measure, 16ft
- b. Chalk line
- c. 4ft level
- d. 10" adjustable wrench
- e. Standard open end wrenches 7/16", 1/2", (2) 9/16", (2) 11/16", 3/4", 15/16"
- f. 5/16" allen wrench
- g. Needle nose pliers
- h. Hammer drill with 3/4" diameter carbide tipped bits
- i. 2lb hammer
- j. Torque wrench: 150 foot pounds minimum with 1 1/8" socket
- k. Pull wire or fish tape
- l. Pipe cutter (if installing narrow width)

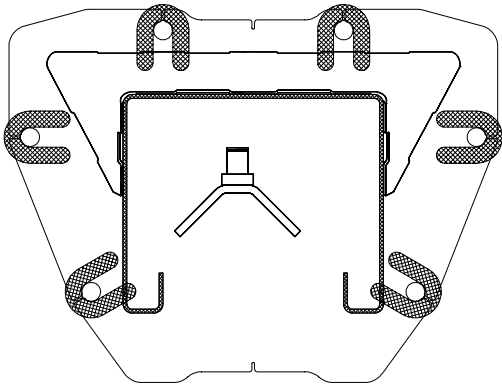
LAYOUT

- 1) Layout the service bay according to the architect's plans or owners instructions (**see Fig 1b**). Be certain that the proper conditions exist, see page 3.
- 2) Assemble column extension to column using 3/8-16 x 3/4" lg Hex flange head bolt. repeat for opposite column and extension.
- 3) Erect both column assemblies. Align the columns with the installation lines. Insure proper "Inside of Columns" dimension from Fig 1.

NOTE: Notches in column base to align with installation lines.

ANCHORING

- 4) The anchor bolts must be installed at least 8 inches from any crack, edge, or expansion joint.
- 5) Use a concrete hammer drill with a 3/4 inch carbide bit. Tip diameter should conform to ANSI Standard B94.12-1977 (.775 to .787). Do not use excessively worn bits or bits which have been incorrectly sharpened.
- 6) Drill the anchor holes using the base plate as a template. Drill through the floor if possible or to a depth of 5 inches minimum.
- 7) Vacuum dust from the hole for proper holding power.
- 8) Assemble washer and nut to anchor with nut just below impact section of bolt. Drive anchor into hole until nut and washer contact base.
- 9) Shim both columns to plumb using the shims provided as shown in **Fig 2**. DO NOT shim more than 1/2" at any given point. Use a level no less than 24" in length to plumb columns.

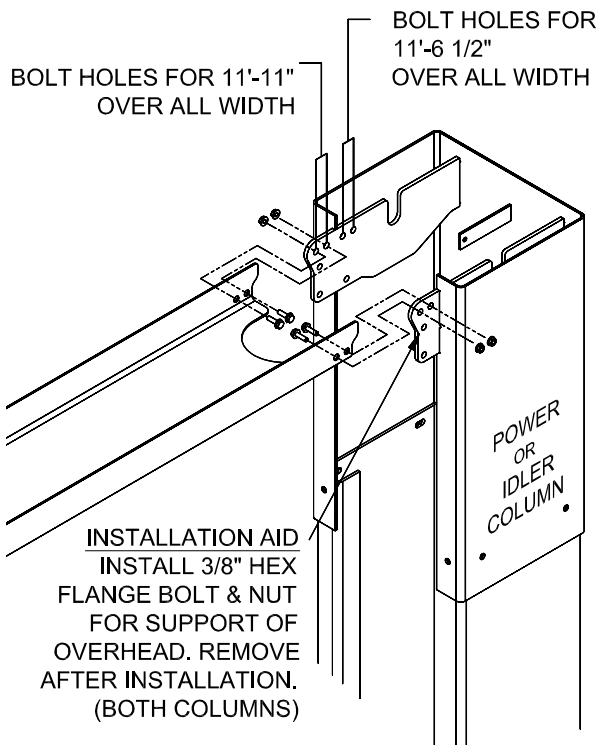


**Fig 2 – Column Shimming**

10) Tighten the power column anchor bolts and recheck column for plumb. Reshim if necessary. Torque to 150 foot pounds to set the anchors.

**OVERHEAD**

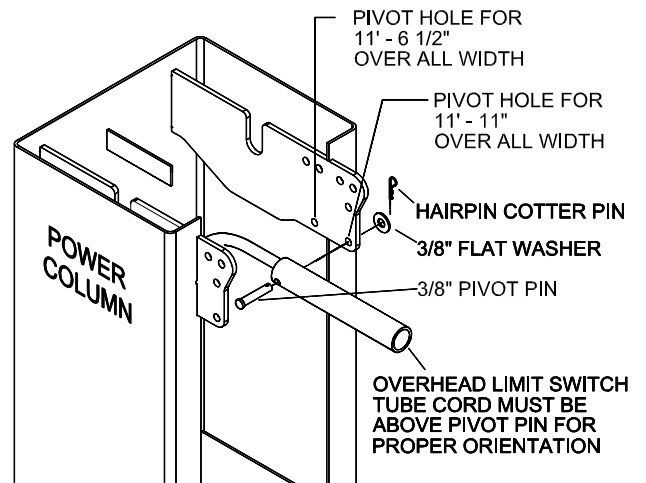
11) Before raising overhead into position install 4 each (2 per column) hex flange bolts and nuts in middle hole of column extension (see **Fig 3 Installation Aid**) for temporary support of overhead. Lift overhead assembly up into position and install with 8 each (4 per column) 3/8-16 x 3/4" lg hex flange bolts and hex flange nuts per side as shown in **Fig 3**.



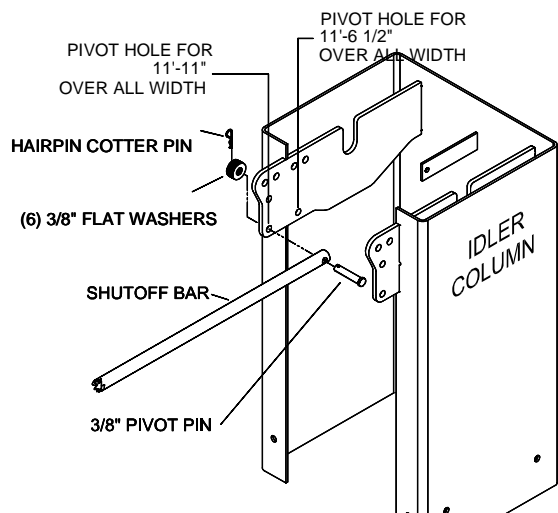
**Fig 3 – Overhead Assembly**

12) Check idler column shimming. Use additional shims (see **Fig. 2**) to remove any gaps that may have been created while installing overhead beam. Tighten anchor bolts and recheck column for plumb. Torque to 150 foot pounds.

13) Install Overhead Limit Switch to **REAR** of Power Column using (1) 3/8" pivot pin, (1) 3/8" flat washer and (1) hairpin cotter pin as shown below. Switch **MUST** pivot freely on pin for proper function. **NOTE** switch tube cord is to be oriented **above** pivot pin as shown in **Fig 4a**. Leave switch cord hanging at this time.



**Fig 4a – Overhead Limit Switch Sub-Assembly**



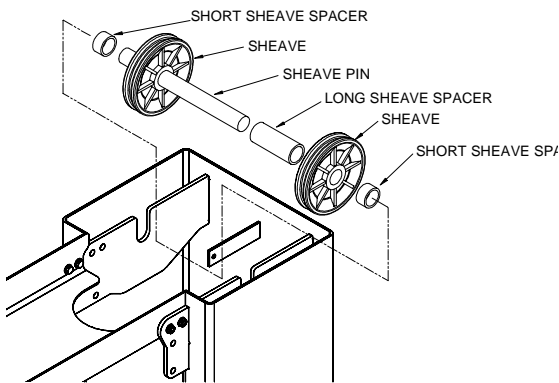
**Fig 4b – Overhead Limit Switch Sub-Assembly**

**IMPORTANT:** There are two over all width settings. Insure to place the limit switch and shutoff bar in the proper pivot holes as shown in Fig's 4a & 4b.

- 14) Repeat **procedure 12** for shut-off bar. Insert shut-off bar in switch tube on power column side and take other end to idler side. Attach shut-off bar to idler column in same manner as switch tube.

**Insure that both switch tube and shut-off assemblies pivot freely for proper operation.**

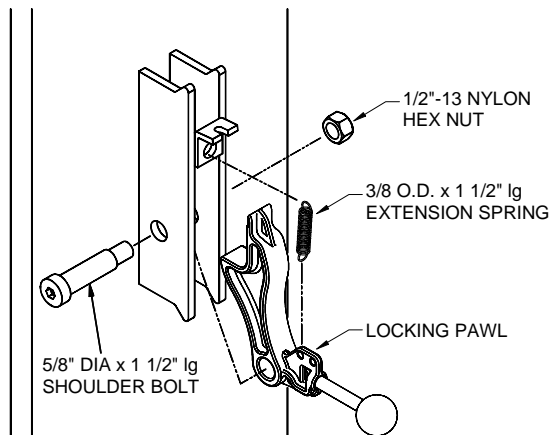
- 15) Assemble the sheaves and spacers onto the sheave pin as shown in **Fig 5**. Set in cradle with all assembly parts between the two plates.



**Fig 5 – Sheave Assembly**

**LOCKING PAWL**

- 16) Install locking pawl on both columns with a 5/8" diameter x 1 1/2" lg shoulder bolt and 1/2"-13 nylon lock nut. Attach extension spring to inner upper hole in locking pawl and other end to hole in bracket welded to column as shown in **Fig 6**.



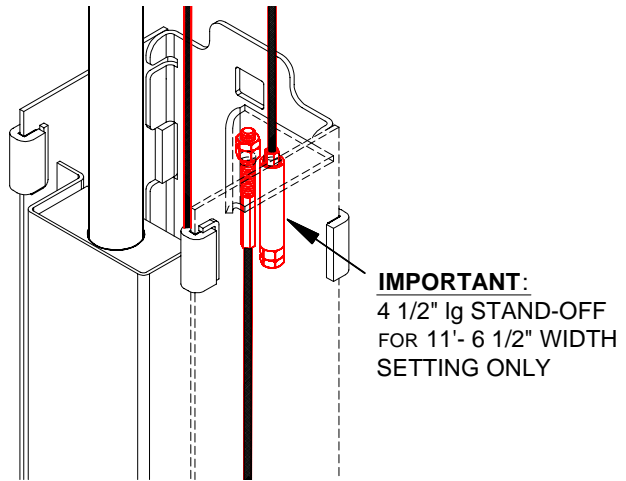
**Fig 6 – Locking Pawl Assembly**

**CABLE**

- 17) Attach one end of synchronizing cable to carriage. See **Fig 7** for proper attachment.

- 18) Route cable up and over sheave in overhead. Follow across to other sheave on opposite column. Route down through carriage to sheave in bottom of column. Route under sheave and up to cable attachment. Use **Fig 7** for proper attachment.

- 19) Repeat for opposite side.



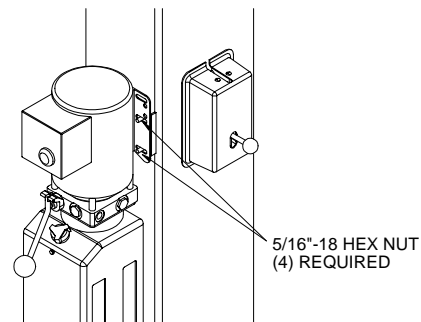
**IMPORTANT:**  
4 1/2" lg STAND-OFF  
FOR 11'- 6 1/2" WIDTH  
SETTING ONLY

**Fig 7 – Cable Assembly**

**IMPORTANT:**

Stand-Offs to be used only on the 11'- 6 1/2" Over All Width Setting.

**POWER UNIT & HYDRAULIC LINES**



- 20) Mount Power Unit to power column as shown in **Fig 8**. The mounting hardware, (4) 5/16"-18 hex nuts, are pre-installed on power unit mounting bracket.

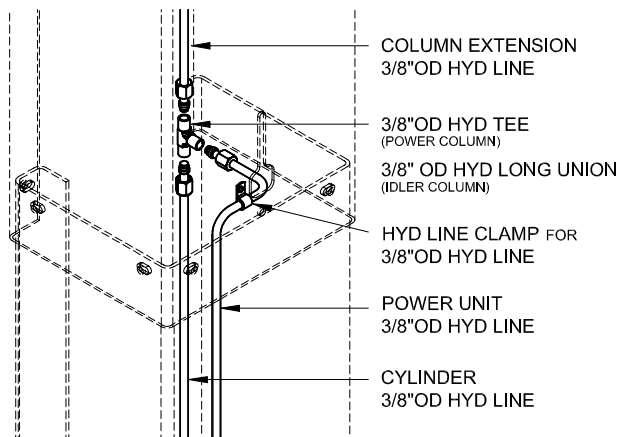
**Fig 8 – Power Unit Mounting**

- 21) Attach hydraulic tee fitting (*in hardware box*) to power column cylinder line (*factory installed*). See **Fig 9a**.

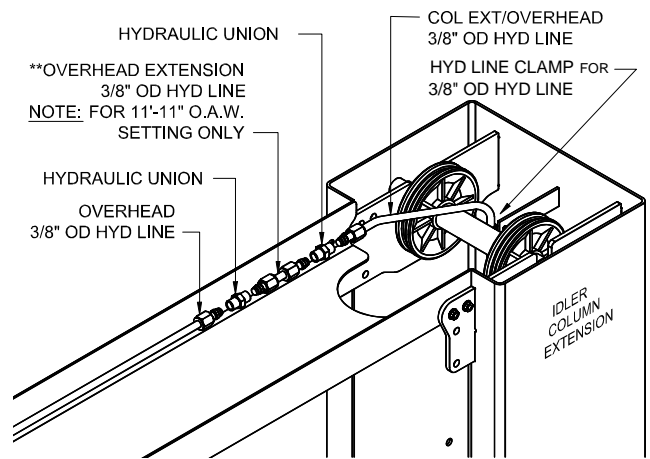
Attach column extension line and power unit line to tee fitting.

Secure power unit line to column extension using hydraulic line clamp & 1/4" hardware.

Model CL10  
Installation, Operation and Maintenance

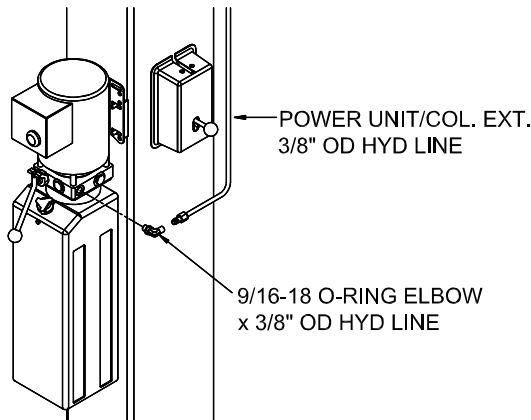


**Fig 9a – Column Hydraulic Line Assembly**



**Fig 10b – Hydraulic Line from Idler Column Extension to Overhead.**

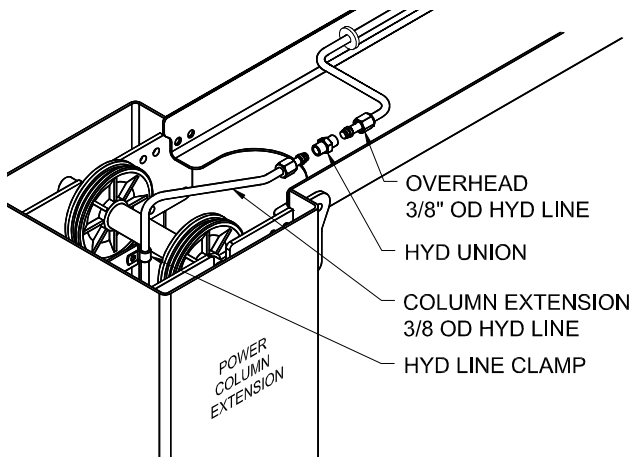
(Sync cables removed for clarity)



**Fig 9b – Hydraulic Line from Power Unit to Power Column Extension**

- 22) Attach elbow fitting (*in hardware box*) threading 9/16-18 O-ring end to power unit. See **fig 9b**. CAUTION not to damage rubber O-ring.
- 23) Secure column extension hydraulic line to tab located inside column extension. See **fig 10a**.

Attach hydraulic union fitting (*in hardware box*) and overhead line.



**Fig 10a – Hydraulic Line from Power Column Extension to Overhead.**

(Sync Cables removed for clarity)

- 24) Attach LONG hydraulic union fitting (*in hardware box*) and column extension line to idler column cylinder line (*factory installed*). See **fig 9a**.

Secure column extension hydraulic line to column extension tab located inside idler column. See **fig 10b**.

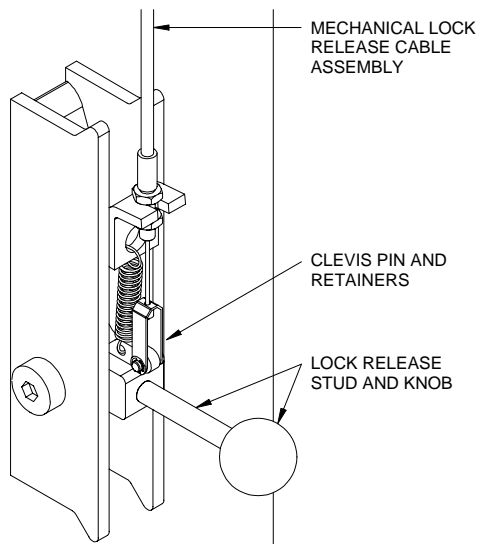
Attach overhead hydraulic line to column extension line using a hydraulic union for 11'-6 1/2" setting or hydraulic union and 4 1/2" long hydraulic extension line for 11'-11" setting.

- 25) **BE CERTAIN ALL FITTINGS AND CONNECTIONS ARE TIGHT. IT IS THE INSTALLERS RESPONSIBILITY TO INSURE SYSTEM IS LEAK-FREE.** Fill the Power Unit with three gallons of clean 10wt anti-foam anti-rust hydraulic oil or Dexron III ATF. **DO NOT USE OILS WITH DETERGENTS.**

MECHANICAL LOCK

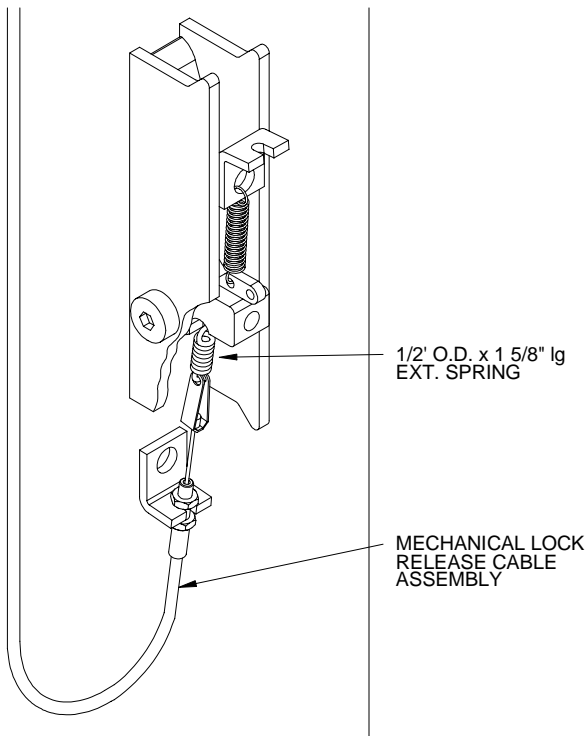
- 26) Attach Mechanical Lock Release Cable Assembly to Power Column lock assembly. Using the 3/16" diameter x 1/2" long pin and (2) "C" clip retainers found in hardware box attach cable clevis to lock pawl as shown in **Fig 11**.

- 27) Insert threaded portion of cable assembly in slot located on tab above locking pawl. One jam nut should be located on each side of tab. Snug jam nuts by hand to tab keeping the threaded portion equally spaced on tab.



**Fig 11 – Power Column Lock Assembly**

- 28) Route opposite end of cable assembly up power column and through access slot in bottom of column extension. Route Lock Release Cable with hydraulic hose across overhead and out bottom of Idler Column Extension slot. CAUTION, DO NOT kink cable assembly when routing from power column lock to idler column lock.
- 29) Attach 1/2" O.D. x 1 1/2" long extension spring to clevis on cable assembly. Attach opposite end of spring to hole located on bottom side of lock pawl as shown in Fig 12.



**Fig 12 – Idler Column Lock Assembly**

- 30) Insert threaded portion of cable assembly in slot located on tab below lock pawl. One jam nut should be located on each side of tab. Snug jam nuts by hand to tab keeping the threaded portion equally spaced on tab.
- 31) Attach cable assembly to column using adhesive tabs and loosely fit wire ties. NOTE: Tighten and trim wire ties after final cable adjustments have been made. Attach cable to hydraulic hose with wire ties to hold cable clear of moving parts in overhead. Start with power column side first. The extra cable should loop under the lock on the idler side.
- 32) Pull and release lock release handle while watching idler column lock. Adjust cable adjuster jam nuts until idler column lock disengages and engages fully. When properly adjusted, the idler column lock should rest firmly against the back of the column when engaged and against the tab when disengaged. Tighten jam nuts.

ELECTRICAL

- 33) Wire tie Limit Switch cord to column extension hydraulic line and power unit line.
- 34) Connect the Overhead Limit Switch Cord to Power Unit as shown in Fig 13.
- 35) Connect Power Unit to suitable electrical source as shown in Fig 13.
- 36) IMPORTANT: After wiring has been completed, test operation of Power Unit & Overhead Limit switch. While raising lift, operate Overhead Shutoff Bar. Power Unit Motor should stop when Shutoff Bar is raised.

ARM INSTALLATION

- 37) Install the arms and insure that the arm restraints engage when lift is raised.

BLEEDING HYDRAULIC SYSTEM

- 38) Energize the power unit until the carriages are lifted and run them up approximately 3 feet. CAUTION, wear eye protection while bleeding the cylinders.
- 39) Start with Idler side first. Slowly and carefully loosen the bleed plug on top of the cylinder just enough to allow the entrapped air to escape. Repeat for power side.
- 40) Energize the power unit and raise 1 to 2 inches. Repeat step 41 until no air comes out of cylinder.



# Wiring Diagram

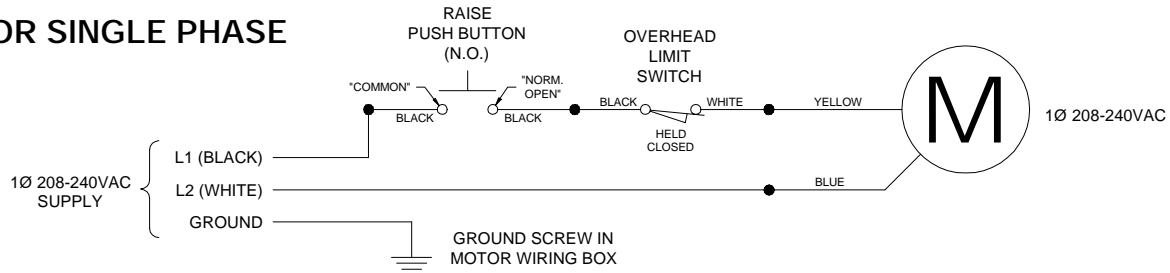
\* After wiring has been completed, test operation of Power Unit & Overhead Limit Switch. While raising lift, operate Overhead Shutoff Bar. Power Unit Motor should stop when Shutoff Bar is raised.

EACH LIFT SHOULD HAVE A DEDICATED CIRCUIT WITH A DOUBLE POLE (THREE POLE FOR 440-480V) BREAKER OR TIME DELAY FUSE SIZED ACCORDING TO THE FOLLOWING CHART

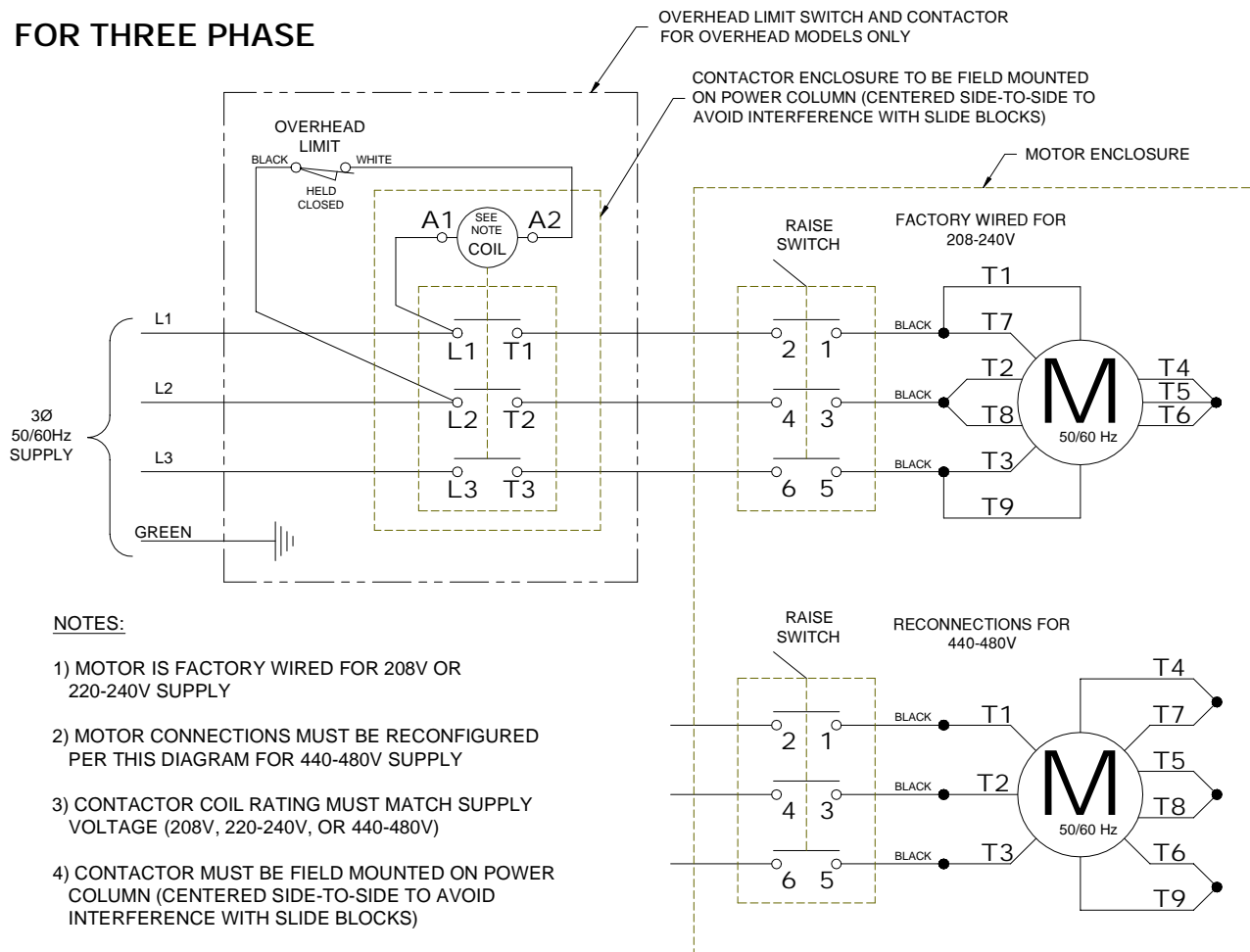
	1Ø 208-240V	3Ø 208V	3Ø 220-240V	3Ø 440-480V
2Hp	25amp	15amp	15amp	5amp

\* WIRING MUST COMPLY WITH NEC AND ALL LOCAL ELECTRICAL CODES \*

## FOR SINGLE PHASE



## FOR THREE PHASE



### NOTES:

- 1) MOTOR IS FACTORY WIRED FOR 208V OR 220-240V SUPPLY
- 2) MOTOR CONNECTIONS MUST BE RECONFIGURED PER THIS DIAGRAM FOR 440-480V SUPPLY
- 3) CONTACTOR COIL RATING MUST MATCH SUPPLY VOLTAGE (208V, 220-240V, OR 440-480V)
- 4) CONTACTOR MUST BE FIELD MOUNTED ON POWER COLUMN (CENTERED SIDE-TO-SIDE TO AVOID INTERFERENCE WITH SLIDE BLOCKS)
- 5) MOTOR ROTATION IS COUNTER CLOCKWISE FROM TOP OF MOTOR

Fig 13 – Electrical Wiring Diagram

- 41) Lower lift completely and remove screw in side of reservoir. Top off with hydraulic oil or ATF until fluid comes out of screw hole. Replace screw.
- 42) Pressure Test hydraulic system by energizing power unit and raising lift to full rise. Continue to run motor for additional 10 seconds. (NOTE: pressure relief will make a high pitch squeal sound for these 10 seconds.) Check hydraulic system for leaks.

#### SYNCHRONIZING CABLES

- 43) Raise lift until both carriages are in a locking position. Lower carriages into lock position. Insure that both carriages are in the same locking position.
- 44) Adjust synchronizing cables so that the tension is equal in both cables and carriages are firmly sitting on locks.
- 45) Cycle lift to insure that the latches operate simultaneously.
- 46) Snap plastic covers over both lock assemblies.

#### OWNER/OPERATOR CHECKLIST

- 47) Demonstrate the operation of the lift to the owner/operator and review correct and safe lifting procedures using the Lifting It Right booklet as a guide.
- 48) Complete the Installation Checklist/Warranty Validation questionnaire with the owner. Review the terms of the warranty registration card, and return the card and a copy of the questionnaires to:

*Challenger Lifts, Inc.*  
200 Cabel Street  
Louisville, KY. 40206

## OPERATION PROCEDURE

#### SAFETY NOTICES AND DECALS

**This product is furnished with graphic safety warning labels, which are reproduced on page 3 of these instructions. Do not remove or deface these warning labels, or allow them to be removed or defaced. For your safety, and the safety of others, read and understand all of the safety notices and decals included.**

#### OWNER/EMPLOYER RESPONSIBILITIES

This lift has been designed and constructed according to ANSI/ALI ALCTV-1998 standard. The standard applies to lift manufacturers, as well as to owners and employers. The owner/employer's responsibilities as prescribed by ANSI/ALI ALOIM-2000, are summarized

below. For exact wording refer to the actual standard provided with this manual in the literature pack.

**The Owner/Employer shall** insure that lift operators are qualified and that they are trained in the safe use and operation of the lift using the manufacturer's operating instructions; ALI/SM 93 -1, ALI Lifting it Right safety manual; ALI/ST-90 ALI Safety Tips card; ANSI/ALI ALOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards; and in case of frame engaging lifts, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts.

**The Owner/Employer shall** establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall insure that the lift inspectors are qualified and that they are adequately trained in the inspection of the lift.

**The Owner/Employer shall** establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions or ANSI/ALIOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall insure that the lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift.

**The Owner/Employer shall** maintain the periodic inspection and maintenance records recommended by the manufacturer or ANSI/ALI ALOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance.

**The Owner/Employer shall** display the lift manufacturer's operating instructions; ALI/SM 93 -1, ALI Lifting it Right safety manual; ALI/ST-90 ALI Safety Tips card; ANSI/ALI ALOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and in the case of frame engaging lift, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts; in a conspicuous location in the lift area convenient to the operator.

#### LIFTING A VEHICLE

- 1) Insure that the lifting arms are parked, out to full drive thru position.
- 2) Position the vehicle in the service bay so that the vehicle's center of gravity is on a line between the two columns, and so the vehicle is centered between the two columns.

**Insure that the highest point on the vehicle will contact the Overhead Limit Switch Bar.**

**Do not place the vehicle in the service bay backwards.**

**Do not attempt to lift the vehicle with only two arms, as this will void the warranty**

**Refer to the vehicle manufacturers service manual, technical bulletins, "Vehicle Lifting Points Guide" (ALI/LP-Guide) or other publications to locate the recommended lifting points.**

- 3) Position the arms and adapters so all four pads contact the vehicle simultaneously.

**The vehicle should remain level during lifting.**

- 4) Raise the lift until all four wheels are off the ground. Test the stability of the vehicle by attempting to rock the vehicle. Check adapters for secure contact with vehicle lift points. If the vehicle seems unstable, lower the lift and readjust the arms. If the vehicle is stable, raise the vehicle to a height a few inches above the desired working height.
- 5) Lower the vehicle until the safety latches on both columns engage. The vehicle should remain level when both latches are engaged. If one side engages and the other continues to descend, stop lowering the vehicle, raise it several inches, and try again to engage both latches.

**Always lower lift into locks before entering the area beneath the vehicle.**

**Always use safety stands when removing or installing heavy components.**

#### LOWERING A VEHICLE

- 1) Insure that the area under the vehicle is clear of personnel and tools.
- 2) Raise the vehicle until both latches are free.
- 3) Disengage the latches by pulling down and holding the lock release lever.
- 4) Lower the vehicle by depressing the lowering valve handle.
- 5) Continue to lower the vehicle until the carriages stop against the base plate. Retract the extension arms, and park them.

#### MAINTENANCE

To avoid personal injury, permit only qualified personnel to perform maintenance on this equipment.

The following maintenance points are suggested as the basis of a preventive maintenance program. The actual maintenance program should be tailored to the installation. See ANSI/ALI ALOIM booklet for periodic inspection checklist and maintenance log sheet.

- If lift stops short of full rise or chatters, check fluid level and bleed both cylinders per Installation Instructions.
- Replace all Safety, Warning or Caution Labels if missing or damaged (**See Installation instructions page 3.**)

#### Daily

- Keep lift components clean.
- Check for loose or broken parts.
- Check hydraulic system for fluid leaks.
- Check adapters for damage or excessive wear. Replace as required with genuine Challenger Lifts parts.
- Check lock release activation. When properly adjusted, the idler column lock should rest firmly against the back of the column when engaged and against the spring mount tab when disengaged.

#### Weekly

- Check synchronizer cables and sheaves for wear. Replace as required with genuine Challenger Lifts parts.
- Check synchronizer cable tension per Installation Instructions. Adjust if necessary.

#### Monthly

- Torque concrete anchor bolts to 80 ft-lbs.
- Check overhead shutoff switch. While raising lift, operate overhead shutoff bar. Power Unit motor should stop when bar is raised.
- Lubricate carriage slide tracks with heavy viscous grease. (Grease all (4) corners of both columns.)

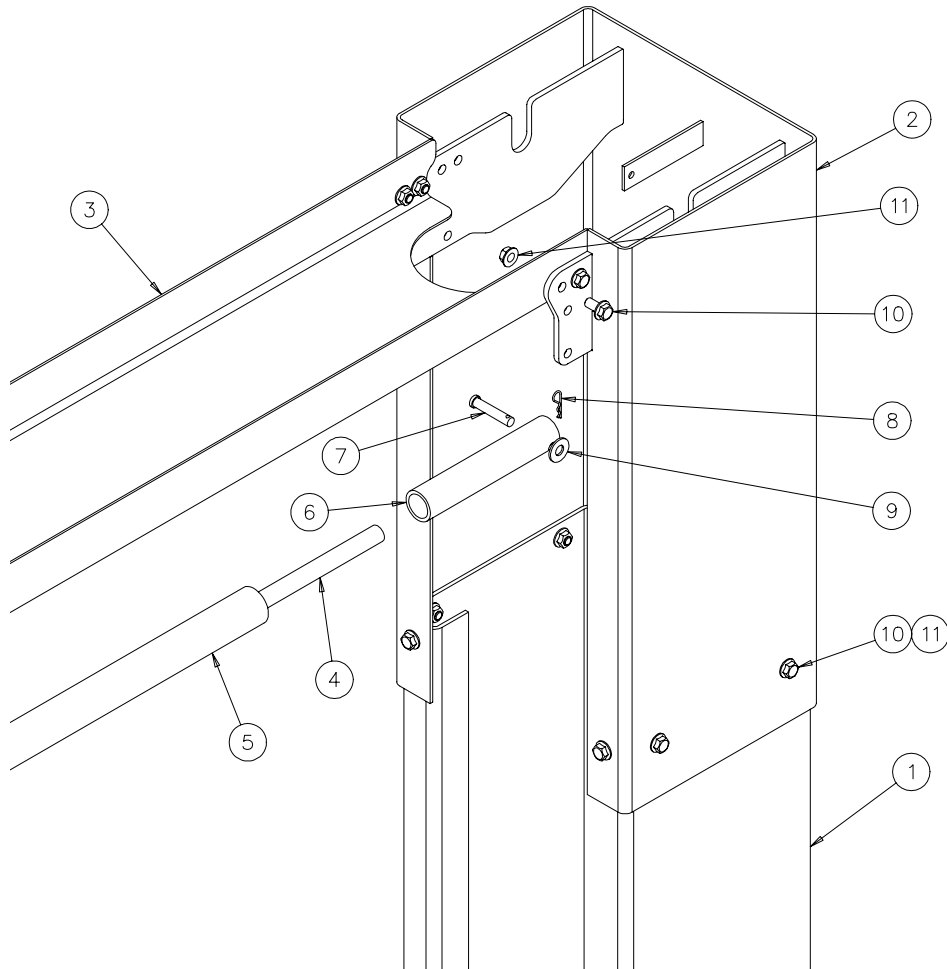
#### Semi-Annually

- Check power unit hydraulic fluid level per Installation Instructions.

If any problems are encountered, contact your local service representative.

# PARTS BREAKDOWN

**Fig A. Column & Overhead**

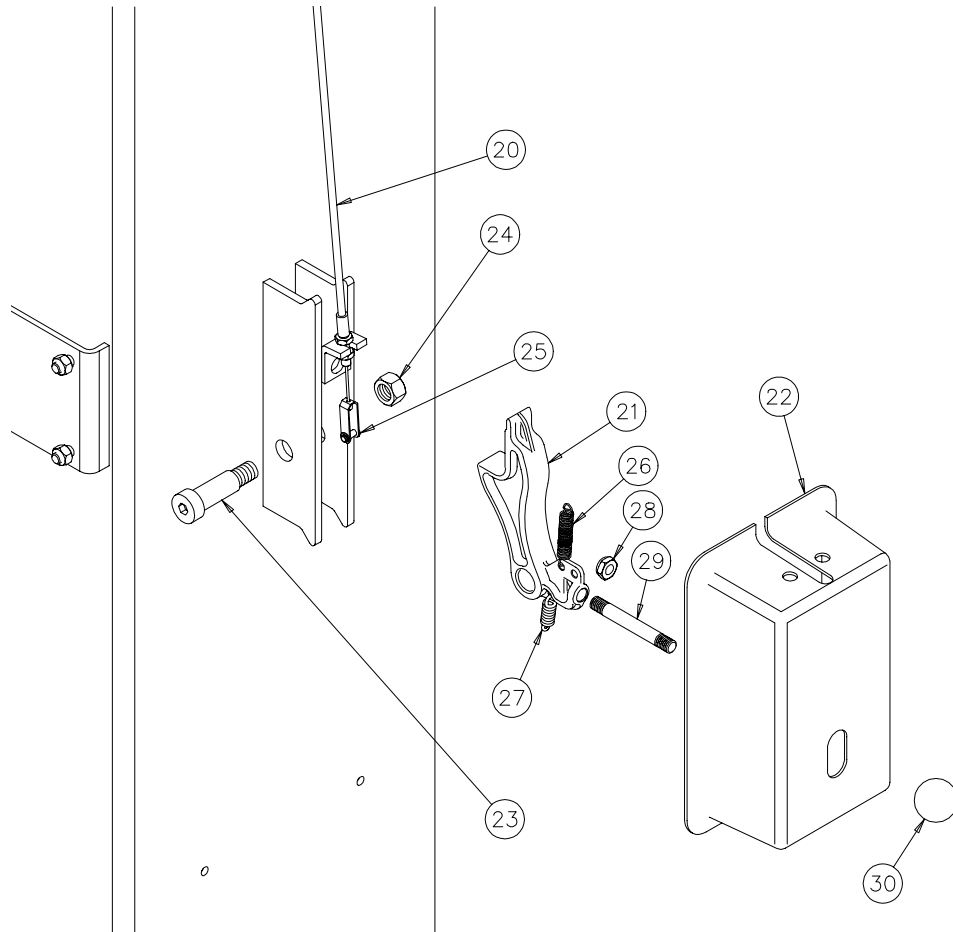


ITEM #	PART #	QTY/LIFT	DESCRIPTION
1	A2010-P	1	POWER COLUMN WELD
	A2010-I	1	IDLER COLUMN WELD
2	A2055-0	2	COLUMN EXTENSION WELD - CL10
	A2055-2		COLUMN EXTENSION WELD - CL10-2
3	A2060	1	OVERHEAD CHANNEL
4	36074	1	SHUTOFF BAR
5	31129	1	PAD
6	36027	1	OVERHEAD LIMIT SWITCH
7	A1064	2	3/8 DIA x 1 7/8 Lg. CLEVIS PIN (SHUTOFF BAR)
8	40124	2	HAIRPIN COTTER PIN
9	31036	7	3/8" FLAT WASHER
10	A1153	24	3/8-16NC HEX.FLG.HD.C.S X 3/4" Lg.
11	A1154	24	3/8-16NC HEX.FLG.NUT

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(Call Challenger Lifts Inc. (502) 625-0700 for the Parts Distributor in your area)

**PARTS BREAKDOWN** (continued)

**Fig B. Lock**



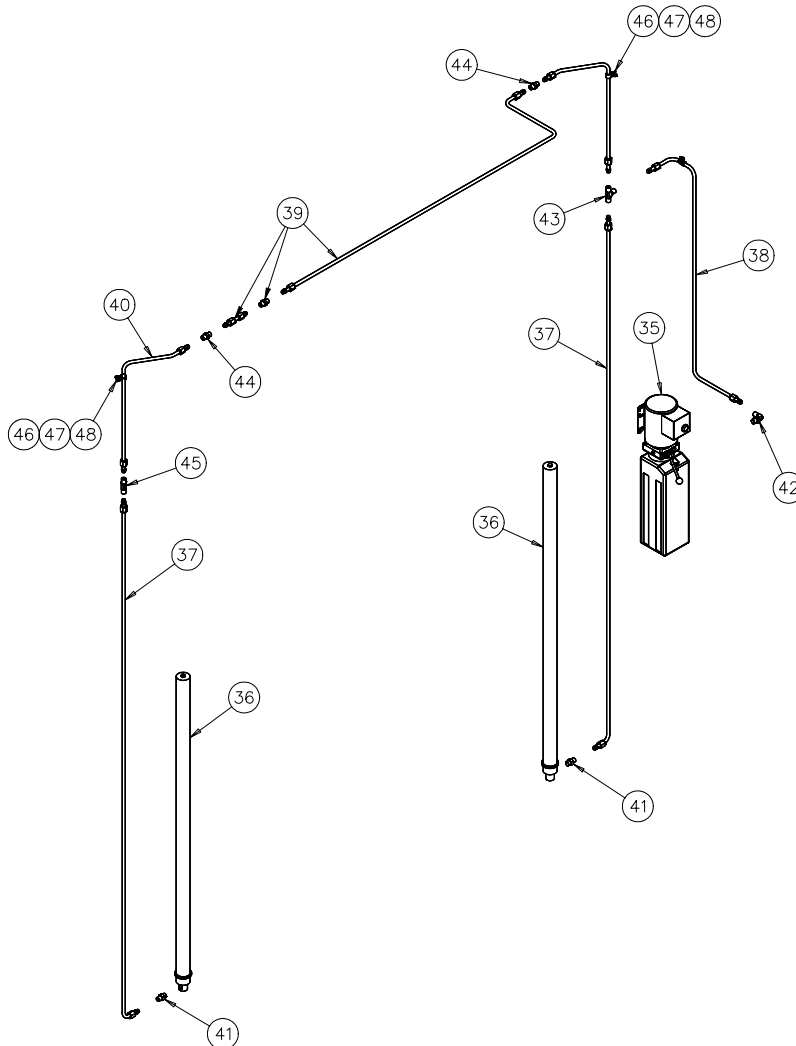
ITEM #	PART #	QTY/LIFT	DESCRIPTION
20	A2135-0	1	LOCK RELEASE CABLE ASSEMBLY - CL10
	A2135-2		LOCK RELEASE CABLE ASSEMBLY - CL10-2
21	A1042	2	LOCK PAWL
22	A1133	2	LOCK COVER
23	30020	2	LOCK PIN (5/8 x 1 1/2" Lg. SHOULDER BOLT)
24	37013	2	LOCK PIN RETAINER (1/2-13NC HEX LOCK NUT)
25	37119	1	CLEVIS PIN KIT
26	A1131	2	LOCK SPRING (3/8" O.D.)
27	A1132	1	CABLE SPRING (1/2" O.D.)
28	A1139	2	3/8-16NC NYLON INSERT HEX JAM NUT
29	A1134	1	STUD (3/8-16 X .5 BOTH ENDS X 3" Lg.)
30	36096	1	BALL HANDLE

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Model CL10  
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**PARTS BREAKDOWN** (continued)

*Fig C. Hydraulics*

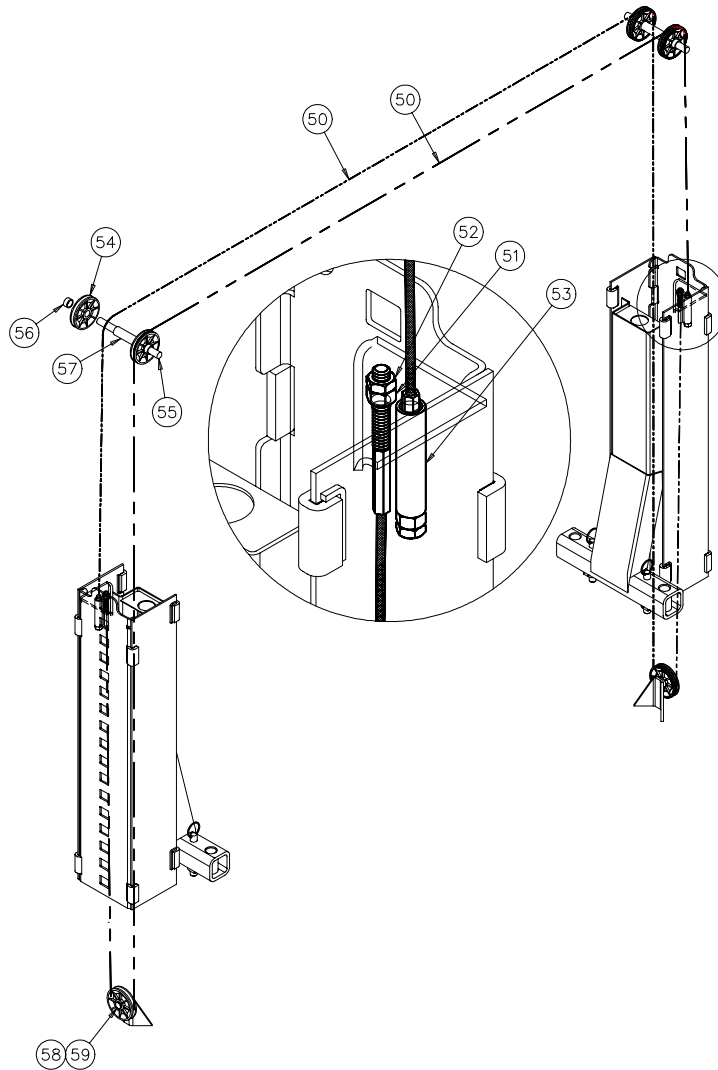


ITEM #	PART #	QTY/LIFT	DESCRIPTION
35	A1201-17	1	POWER UNIT 1ph, 60 Hz, 208-230V
	A1203-17		POWER UNIT 3ph, 60 Hz, 208-230/460V
36	16138	2	CYLINDER (68" STROKE x 2" BORE)
37	A2123	2	CYLINDER LINE
38	A2120	1	PU LINE
39	A2122	1	OH LINE w/4 1/2" EXTENSION
40	A2121-0	2	EXTENSION LINE - CL10
	A2121-2	2	EXTENSION LINE - CL10-2
41	36116	2	3/8 HYD. TUBE x 9/16-18 O-RING ADAPTER
42	31089	1	O-RING ELBOW
43	31032	1	UNION TEE
44	31047	2	UNION
45	A2124	1	BULKHEAD UNION
46	31025	3	LINE CLAMP
47	A2125	3	1/4-20NC HEX.FLG.HD.C.S. x 3/4
48	40085	3	1/4-20NC HEX.FLG.NUT

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**PARTS BREAKDOWN** (continued)

**Fig D. Synchronizer**



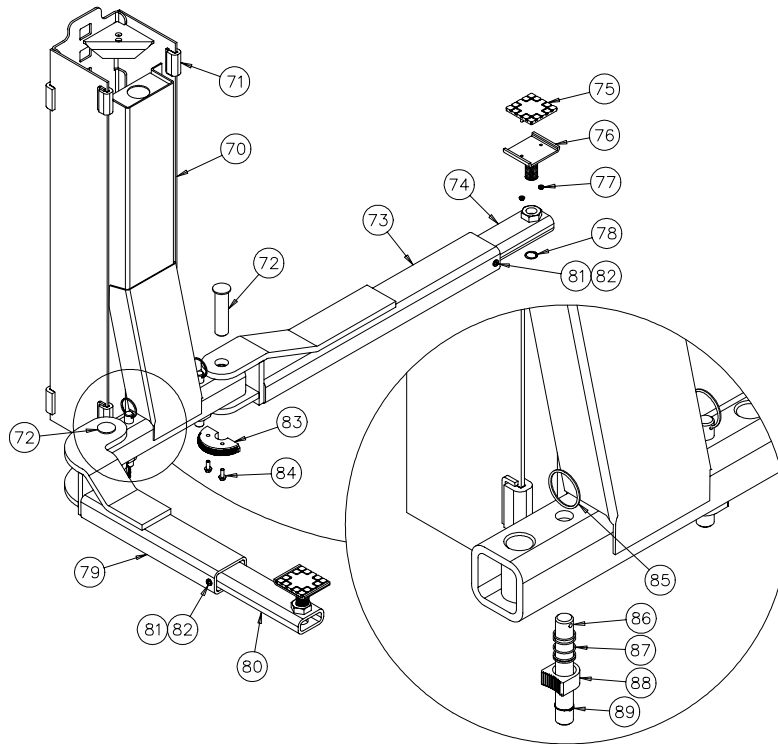
ITEM #	PART #	QTY/LIFT	DESCRIPTION
50	A2115-0	2	SYNCHRONIZER CABLE - CL10
	A2115-2		SYNCHRONIZER CABLE - CL10-2
51	A2116	4	5/8-11NC HEX NUT
52	A2117	4	5/8-11NC HEX JAM NUT
53	A2118	2	CABLE SPACER (4 1/2" LONG)
54	36025	6	SHEAVE ASSEMBLY (5" DIA. X 5/16" GROOVE)
55	36024	2	SHEAVE PIN
56	A1063-S	4	SHORT SHEAVE SPACER
57	A1063-L10	2	LONG SHEAVE SPACER
58	36013	2	1" I.D. SPACER WASHER
59	36014	2	1" EXT. RETAINING RING

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Model CL10  
Installation, Operation and Maintenance

**PARTS BREAKDOWN** (continued)

*Fig E. Carriage & Arms*



ITEM #	PART #	QTY/LIFT	DESCRIPTION
70	A2025	2	CARRIAGE WELD
71	31023	16	SLIDE BLOCK ASSY
72	A1078	4	ARM PIN WELD
73	A2091	2	REAR FEMALE ARM WELD
74	A1094-R10	2	MALE ARM WELD (REAR)
75	A1104	4	FOOT PAD RUBBER INSERT
76	A1101	4	FOOT PAD WELD
77	31061	8	1/4-20 KEPS NUT
78	39111	4	FOOT PAD RETAINER RING
79	A2086-P	1	FRONT FEMALE ARM WELD (POWER)
	A2086-I	1	FRONT FEMALE ARM WELD (IDLER)
80	A1094-F	2	MALE ARM WELD (FRONT)
81	31305	4	3/8 MALE ARM RETAINER SCREW
82	31037	4	3/8 LOCK WASHER
83	A1070	4	INNER GEAR
84	A1068	8	3/8-16NCx1 Lg. HEX .FLG.LOCK.HD.C.S. GR.5 ZN PLT
85	A1075	4	PULL RING
86	A1073	4	SHAFT
87	31109	4	COMPRESSION SPRING (RESTRAINT SHAFT)
88	A1072	4	OUTER GEAR
89	36014	4	1" EXT. RETAINING RING
	A2090	2	REAR ARM ASSY
	A2085-P	1	FRONT ARM ASSY (POWER)
	A2085-I	1	FRONT ARM ASSY (IDLER)
	A1100	4	FOOT PAD ASSY
	A1077	4	ARM RESTRAINT SHAFT ASSY

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