



SLW210/SLW210U  
 SLW212/SLW212U  
 Conventional and Work Bench  
 Shockwave Controls

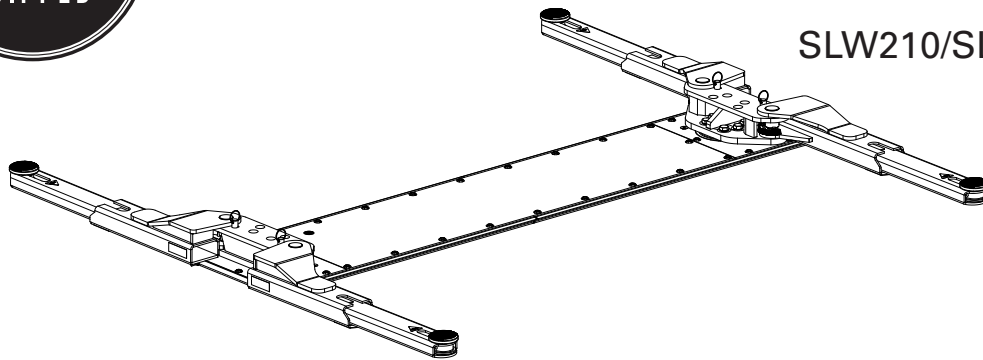
(000 Series)

SLW210/SLW210U Capacity 10,000 lbs.

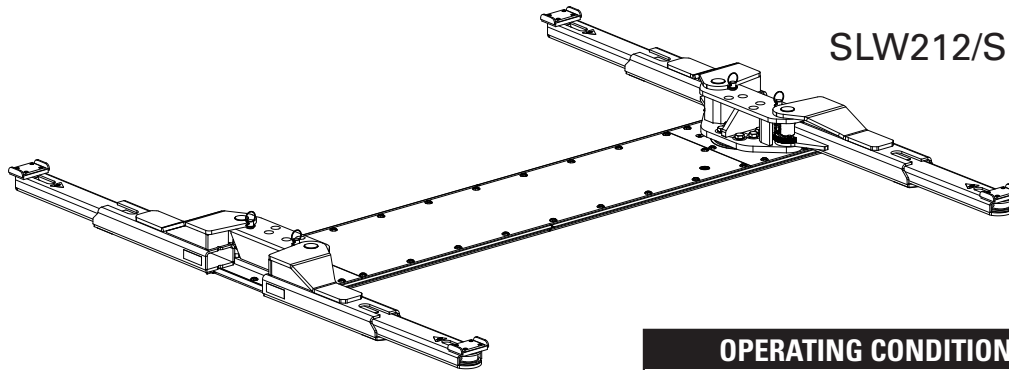
SLW212/SLW212U Capacity 12,000 lbs.



SLW210/SLW210U



SLW212/SLW212U



**OPERATING CONDITIONS**

Lift is not intended for outdoor use  
 and has an operating ambient temperature  
 range of  
 41°-104°F (5°-40°C)

**Attention!!!**

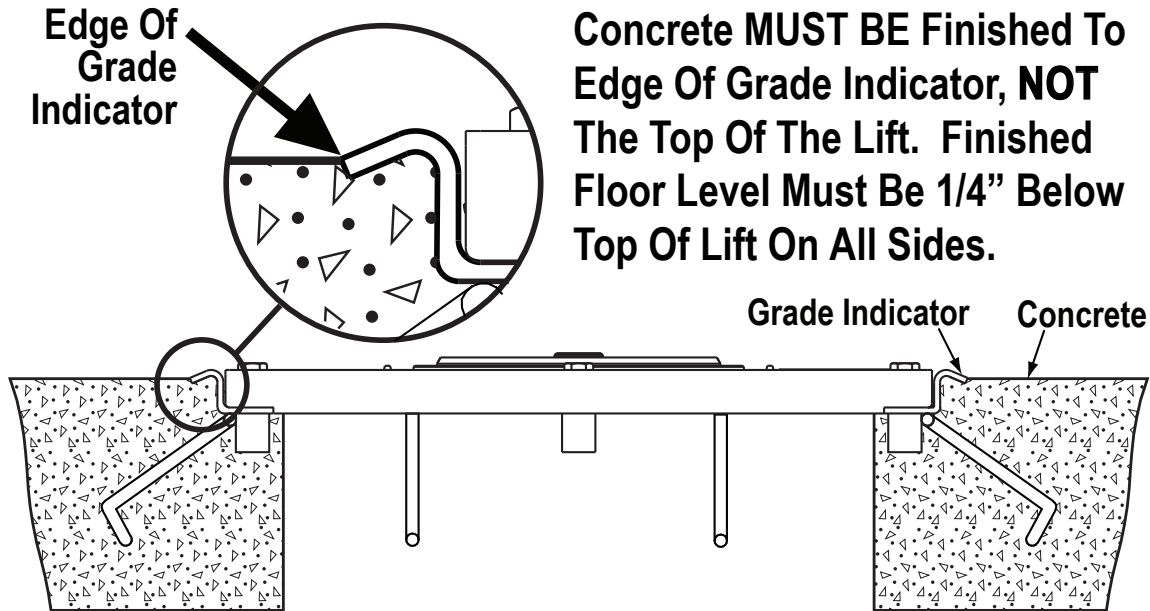
These Instructions Contain General Data. Any Deviation From Customers Prints Or Specifications Should Be Clarified Before Proceeding With Lift Installation.

**IMPORTANT** Check the containment tube for holes due to shipping damage. Do not install a damaged containment tube. Contact Rotary Lift Customer Service. If the lift has a chance to be exposed to the elements, protect the lift.

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# IMPORTANT

## Failure To Comply Will Void Warranty



Concrete **MUST BE** Finished To Edge Of Grade Indicator, **NOT** The Top Of The Lift. Finished Floor Level Must Be 1/4" Below Top Of Lift On All Sides.

**Owner: Your Installer Is Responsible For The Concrete Floor Being Finished To Grade Angle, NOT To The Top Of The Lift. Failure To Comply Will Void Warranty**

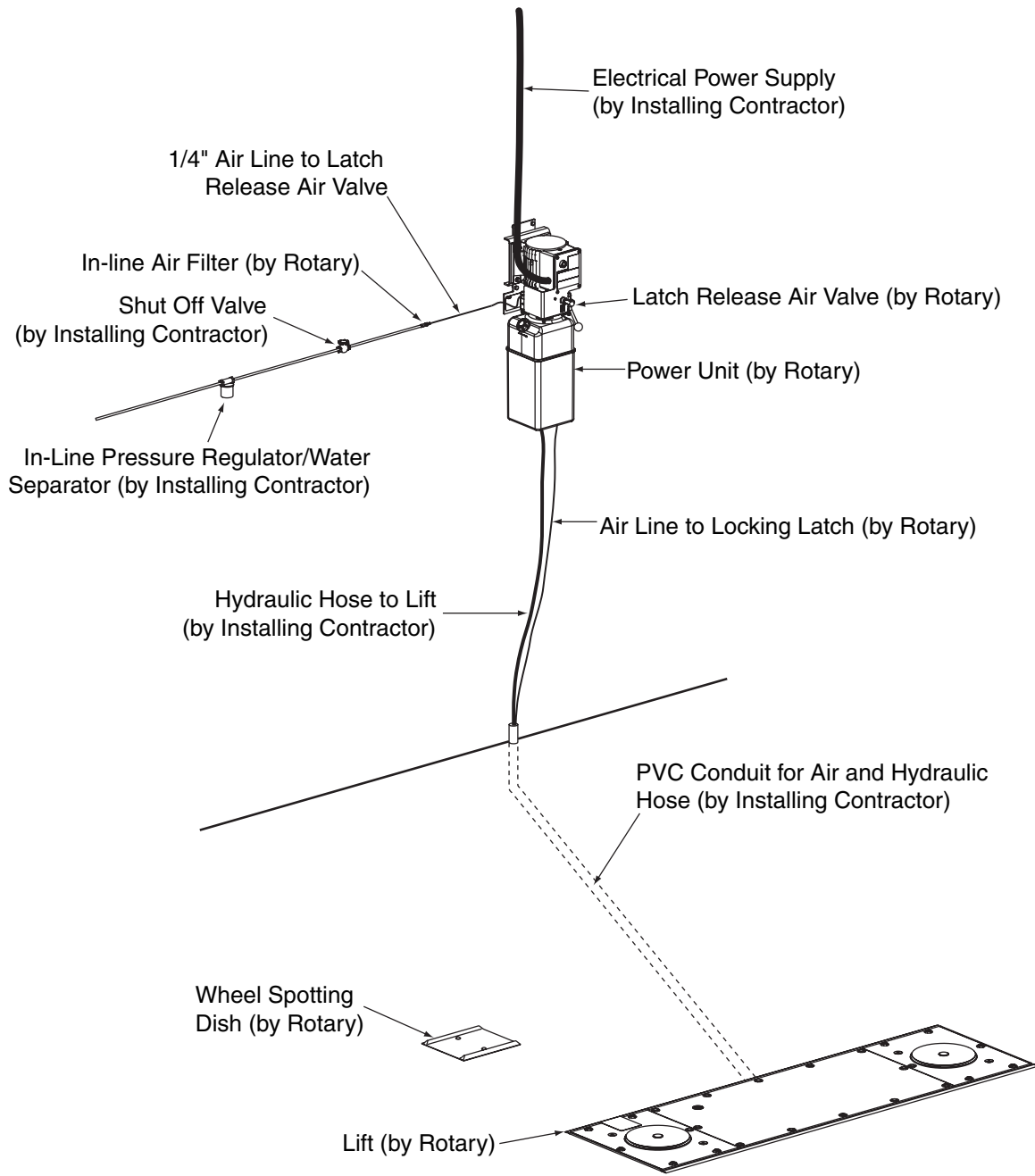
**IMPORTANT** Contact with the electrical heating coils could cause electrolysis and damage the lift and/or its components. Make sure the lift frame concrete anchors do not contact electrical heating coils, or re-bar that may be in contact with other embedded electrical sources. The lift being physically connected to any source which promotes electrolysis will void the warranty.

SEISMIC-Varies by location consult with your structural engineer and manufacturer's representative.

\*The supplied concrete fasteners meet the criteria of the American National Standard "Automotive Lifts- Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2011, and the lift owner is responsible for all charges related to any additional anchoring requirements as specified by local codes.

Contact customer service for further information at: 866.347.5438

# INSTALLATION INSTRUCTIONS



**Please follow these instructions to ensure a good installation and satisfactory operation of the lift.** Check your shipment against the product load list and shipping papers. Enter claims for damage or shortage with the delivering carrier at once.

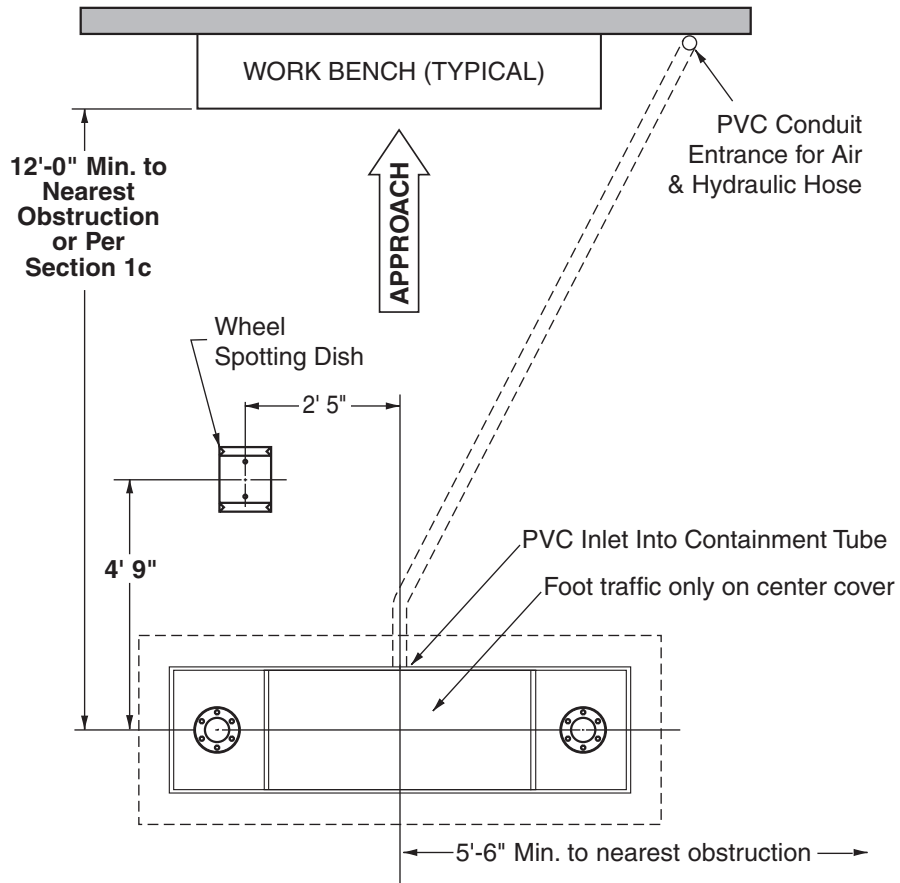
- After installation, please return this booklet to the literature package and give to lift owner/operator.
- Literature package should be kept attached to power unit for easy access.
- Review entire installation instructions before beginning excavation.

**IMPORTANT** The center cover is designed for foot traffic only.

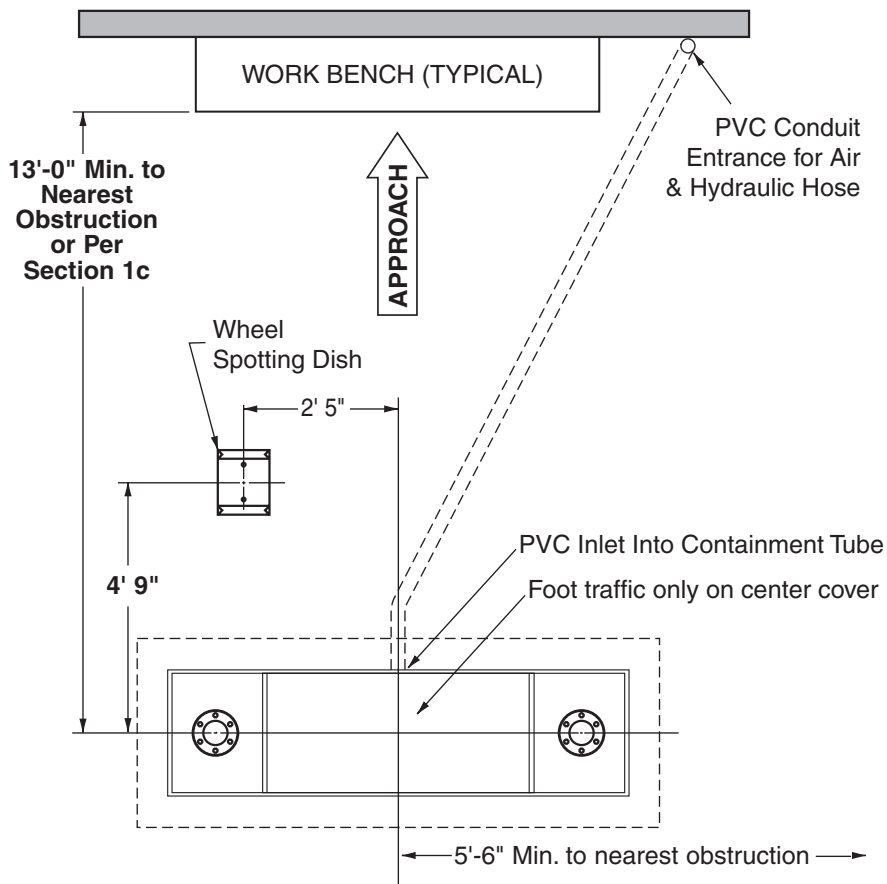
**WARNING** Restrict all unauthorized persons from going near excavation. OSHA standard restricts anyone from getting in excavated hole, unless OSHA guidelines are followed. See OSHA Excavating Standard CFR 1926.

Keep excavated hole covered and barricaded when installation is not in progress.

Fig. 1



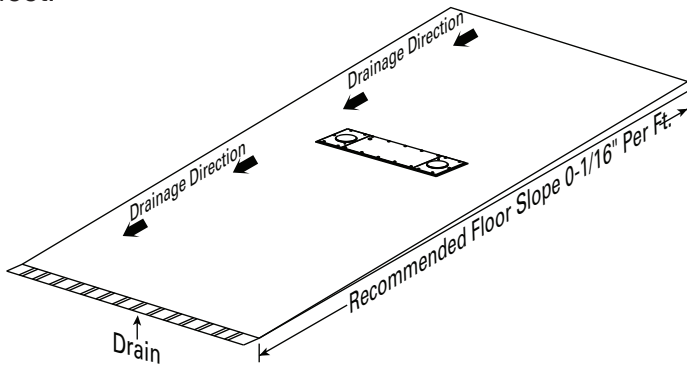
## SLW210 Series



## SLW212 Series

### 1. Lift Location:

A. Check architect's layout if available. Lay out lift as shown in Fig. 1. Recommended floor slope is 1/16" per foot.



B. **SLW210:** The 5' 6" centerline to side and 12' 0" centerline to front and rear dimensions should be maintained to provide adequate working space. The minimum overhead clearance should be 85" plus height of highest vehicle to be raised. 24' 0" length bay recommended. Other lengths may be used, provided ample clearance is maintained at each end of lift.

**SLW212:** The 5' 6" centerline to side and 13' 0" centerline to front and rear dimensions should be maintained to provide adequate working space. The minimum overhead clearance should be 88" plus height of highest vehicle to be raised. 26' 0" length bay recommended. Other lengths may be used, provided ample clearance is maintained at each end of lift.

C. **Base Unit Lifts:** If you are planning to install roll-on/wheel alignment runways, locate lift per instructions from superstructure manufacturer. Use superstructure manufacturer's instructions for fore and aft, side to side, and ceiling clearances.

2. **Excavation:** Excavate hole to dimensions shown in Fig. 2. Dig trench for 2" PVC pipe between lift and power unit location. Trench should be dug 11" below finished floor grade. Air line and hydraulic hose to be contained in this 2" PVC pipe.

### 3. Concrete Preparation:

A. Run 2" PVC from Control Area to Containment Tube. PVC will enter the Containment Tube 9-1/2" below finished floor grade. Hole is centered horizontally in Containment Tube, Fig. 1.

B. **Box out an area around where lift is to be located.**

**NOTE: For multiple lift installations, boxed out areas will overlap. Digging a continuous trench may be necessary.**

C. Pour concrete floor ensuring not to get concrete in boxed out area.

**NOTE: By using this installation method, the RAI can more accurately set lift to proper grade relative to finished floor. Reference Page 2.**

### 4. Lift Setting:

**IMPORTANT** Check the containment tube for holes due to shipping damage. Do not install a damaged containment tube. Contact Rotary Lift Customer Service.

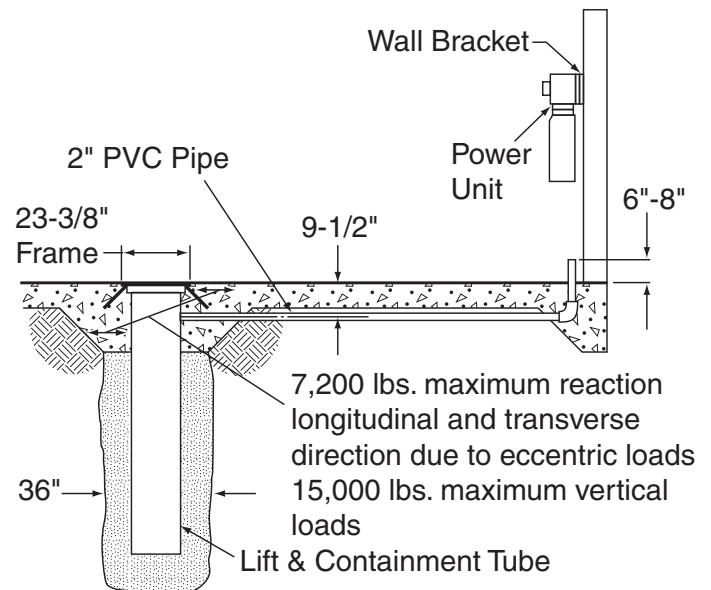
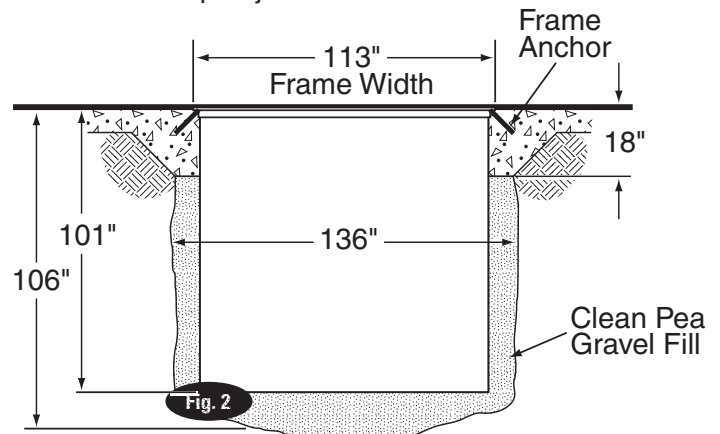
A. Chain hoist must have capacity of 2,500 lbs. with a clear swing of 9' 0". Rig sling for unit, attaching to the shipping strap, Fig. 3, and lower assembly into hole. Center lift and be sure lift containment inlet is located as shown in Fig. 1.

**IMPORTANT** Owner: Your Installer Is Responsible For The Concrete Floor Being Finished To The Leading Edge Of The Grade Angle (1/4" Below Top Of Lift), NOT To The Top Of The Lift, Fig. 5. Failure To Comply Will Void Warranty.

B. Bend frame anchors out perpendicular to concrete frame and downward approximately 45° to floor level, Fig. 2.

C. Remove and retain (4) 1/2"-13NC HHCS (marked with X, Fig. 3). Insert 1/2" Threaded Rods x 18" lg. into the holes and secure in place using 1/2" flat washers and nuts, Fig. 4.

D. Attach 6 x 6's to support unit on existing floor and secure in place with 1/2" flat washers and nuts, Fig. 4. Remove shipping straps and install guide barrel bolts in open holes and torque to 60 ft-lbs. Remove protective covers from top of jacks.



E. Plumb and level by placing machinist level on top of jack. Do Not plumb or level off unit frame. See Fig 5.

F. Shore Lift Securely!

G. Connect 2" PVC to containment tube, chamfer PVC entering containment tube seal and lubricate I.D. of seal with grease or oil to ease entry of PVC into seal. PVC pipe should extend into containment tube 1" maximum.

**NOTE: If your PVC pipe and containment inlet do not align, you may have to cut back PVC pipe, and attach 2" Flexible PVC to make connection. All PVC joints MUST be leak proof.**

H. Recheck plumb.

**5. Backfill:**

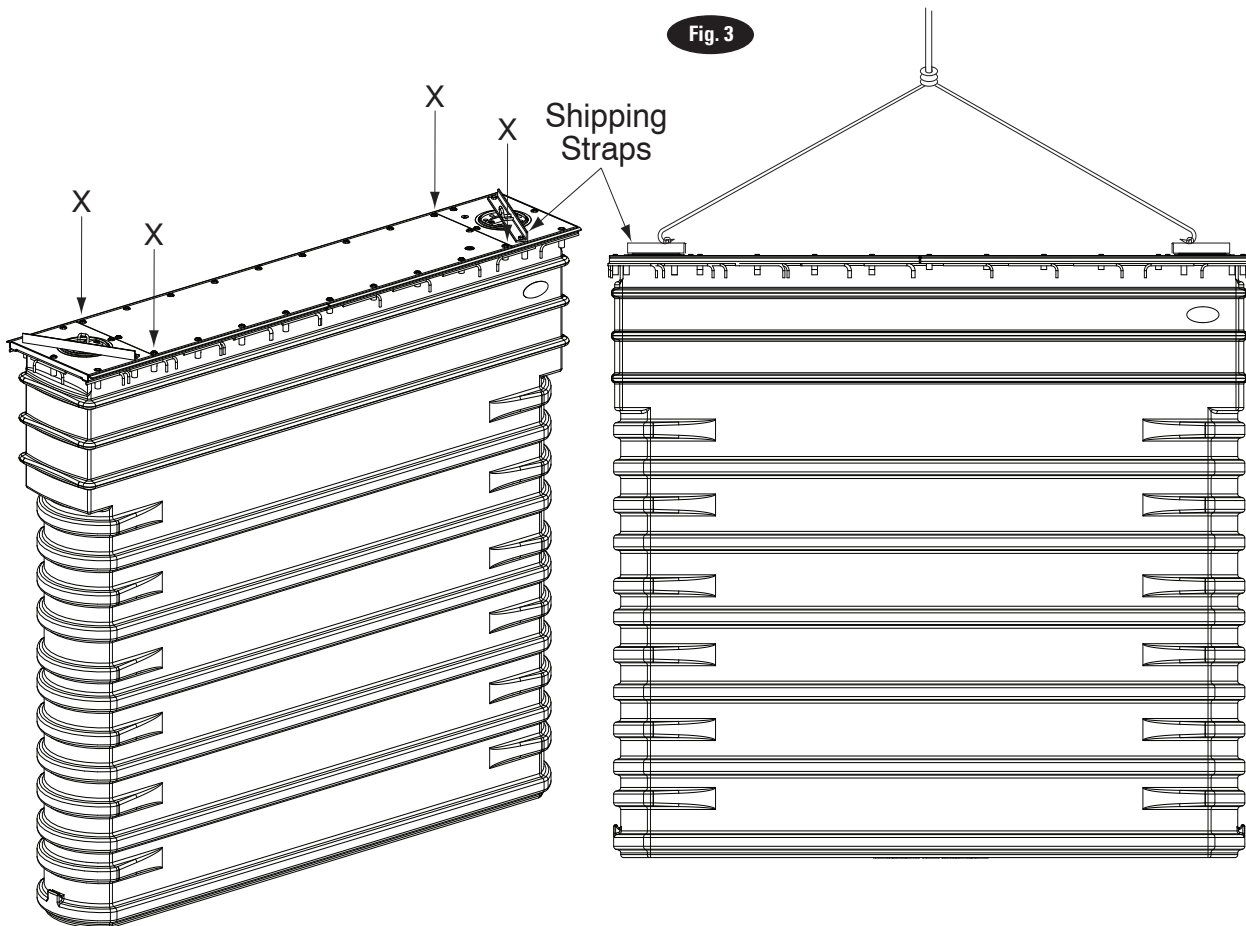
A. Duct tape joint areas indicated by X, Fig. 6, to protect these areas during backfill and concrete work. Backfill around unit using only pea gravel to within 18" of top of finished floor.

**CAUTION** Do not use a mechanical tamper or saturate the backfill material to achieve compaction. This could cause lift containment sides to bend inward, **HANDTAMP ONLY.**

**IMPORTANT** Do Not fill plunger with any ballast material.

B. Complete backfill and tamp pipe trench.

C. After lift is backfilled, make final elevation and plumb checks, Fig 5.



D. Make sure frame anchors are bent out, Fig. 7.

**6. Concrete Work:**

A. Leave 6 x 6's in place.

B. New concrete around the lift must be keyed into existing floor with rebar or stud anchors, Fig. 7.

C. A minimum concrete strength of 3,000 PSI is suggested. DO NOT use calcium chloride as a curing accelerator. If using a curing accelerator, we recommend a non-chloride additive such as High Early\* or equivalent.

D. Pour concrete floor, being careful not to run concrete in and around top surface of lift unit.

**IMPORTANT** Owner: Your Installer Is Responsible For The Concrete Floor Being Finished To The Leading Edge Of The Grade Angle (1/4" Below Top Of Lift), NOT To The Top Of The Lift, Fig. 5. Failure To Comply Will Void Warranty.

**IMPORTANT** It is imperative that lift be set level regardless of floor slope or other factors. Trowel smooth and allow to harden.

E. After concrete is set-up, remove 6 x 6's and threaded rods.

F. Reinstall the guide barrel bolts, use Loctite 242 (blue) on bolts and torque to 60 ft.-lbs.

G. Do not use lift until concrete has achieved 3,000 PSI.

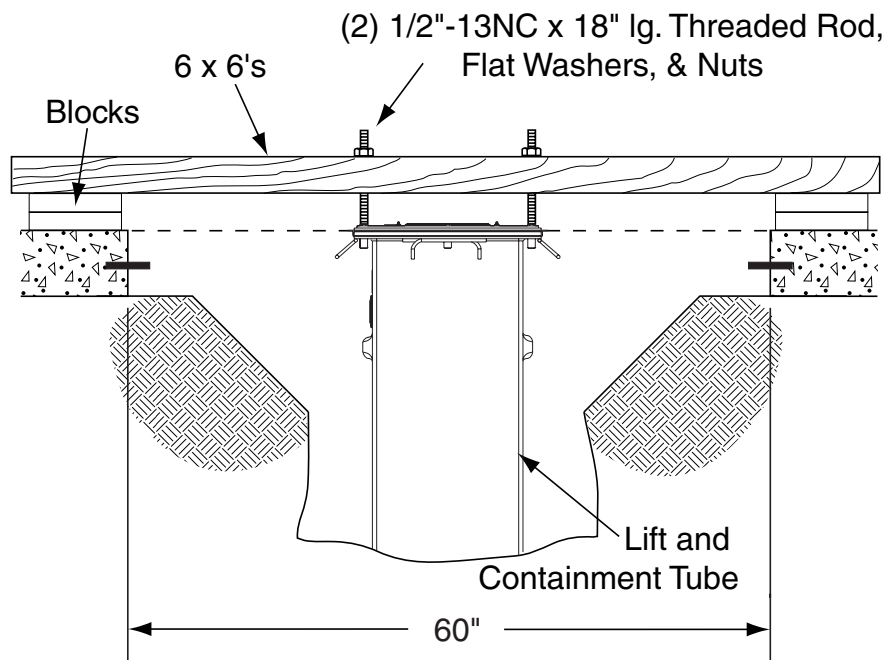


Fig. 4

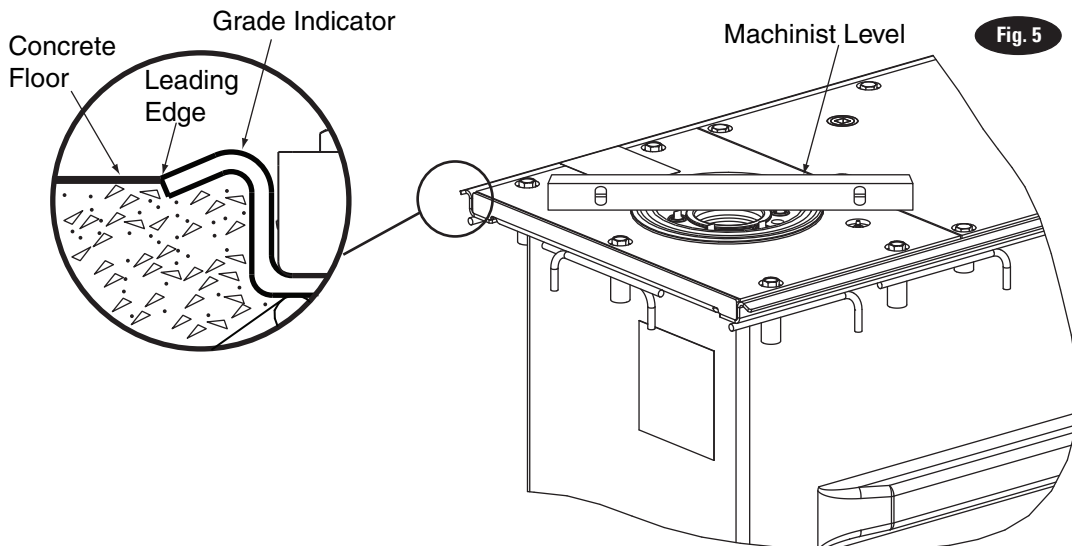


Fig. 6

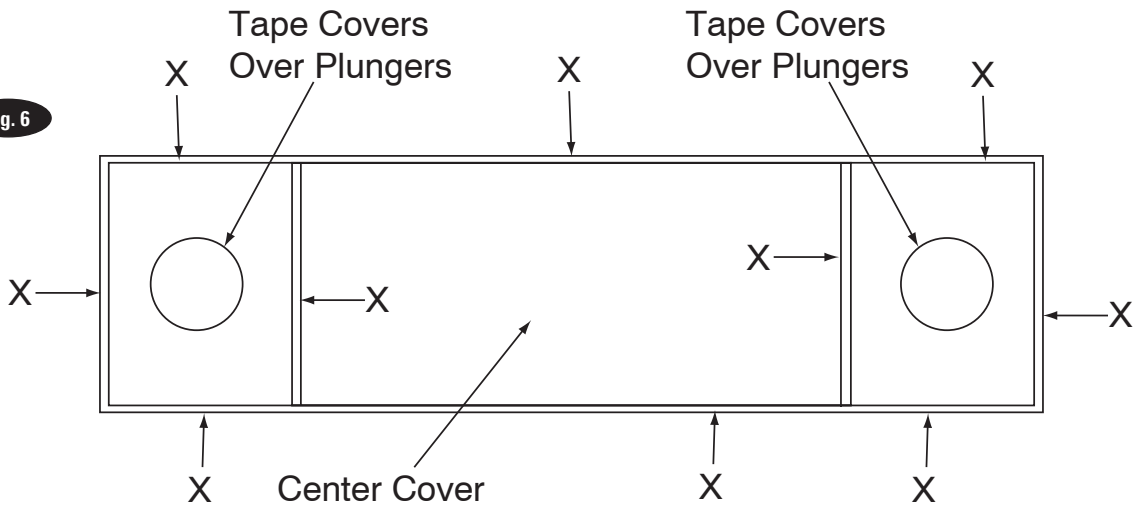
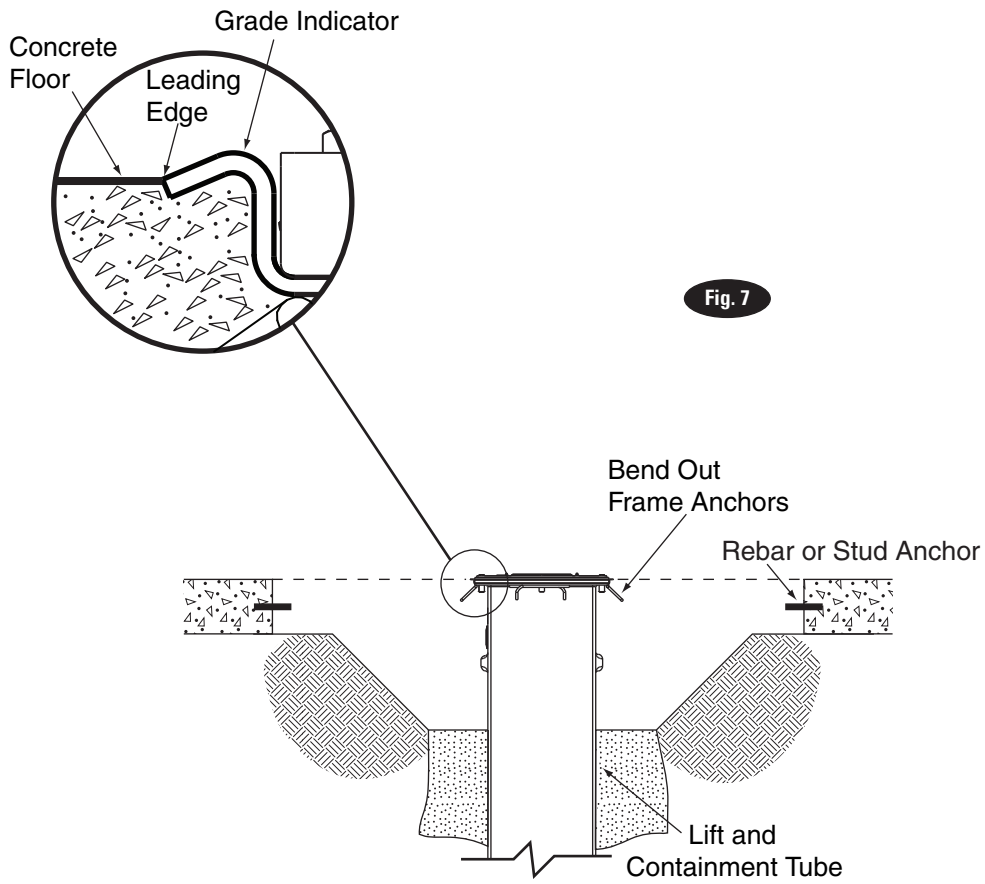


Fig. 7



\*High Early is a registered trademark of General Portland Cement Company.



**7. Power Unit (Conventional Controls):**

**A.** For operating convenience, locate Power Unit mounting bracket so top of Motor will be approximately 56" above floor, Fig. 2.

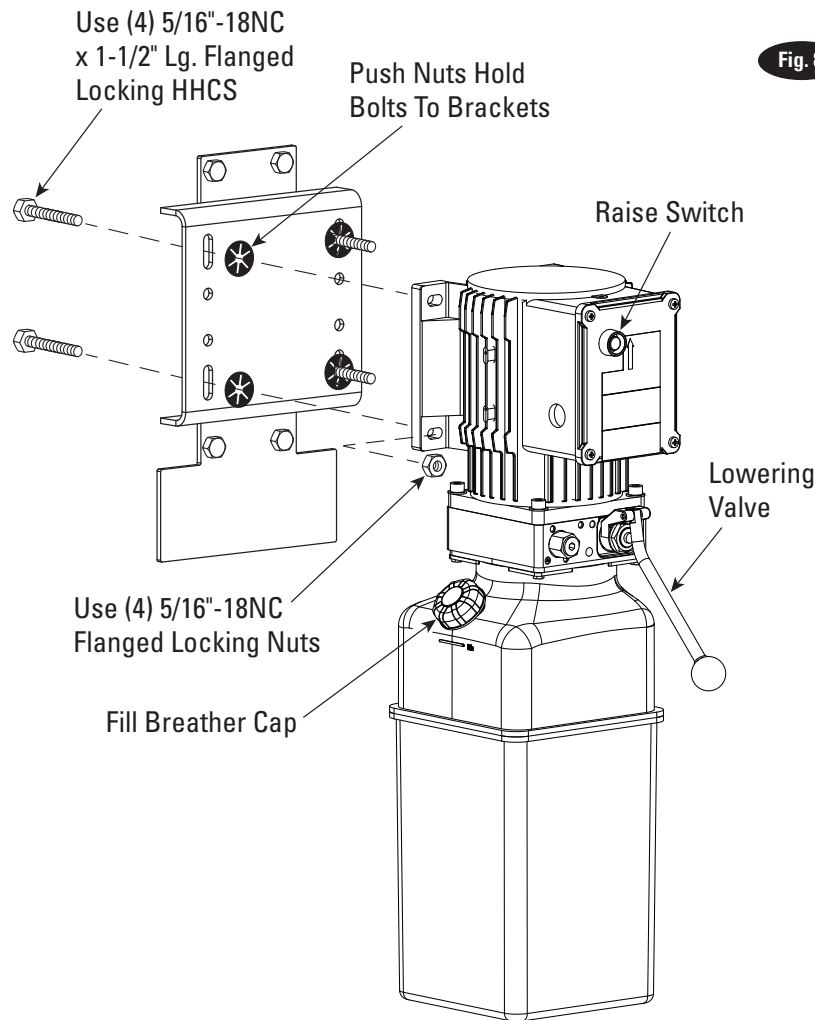
**B.** Locate and mount the wall bracket, using (4) 3/8" wall anchors, on the wall. Anchors must be able to hold 20 lbs. of shear force.

**C.** Put (2) 5/16"-18NC x 1-1/2" flanged locking HHCS through holes in the air valve bracket then through wall bracket, if rear mounted air valve bracket is supplied, using push-nuts to hold in place, Fig. 8. Put the other (2) 5/16"-18NC x 1-1/2" flanged locking HHCS through wall bracket using push-nuts to hold in place, Fig. 8.

**D.** Mount power unit, with motor up, to the wall bracket and install (4) 5/16" flanged locking nuts, Fig. 8.

**E.** Install and hand tighten elbow adapter to pump until O-ring is seated, Fig. 11. Continue to tighten the locknut to 10-15 ft-lbs., or until the nut and washer bottom out against the pump manifold. **NOTE:** You may still be able to rotate the Branch Tee. This is acceptable unless there is seepage at the O-ring. If so, slightly tighten the locknut.

**CAUTION** Over tightening locknut may tear O-ring or distort threads in pump manifold outlet.



**8. Electrical:** Have a certified electrician run appropriate power supply to motor, Fig. 9. Size the wire for 20 amp circuit. See Motor Operating Data Table.

**CAUTION** Never operate the motor on line voltage less than 208V. Motor damage may occur.

**IMPORTANT:** Use separate circuit for each power unit. Protect each circuit with time delay fuse or circuit breaker. Single phase 208-230V uses 20 amp fuse. For wiring see Fig. 9. All wiring must comply with NEC and all local electrical codes.

**Note:** 60Hz. single phase motor **CAN NOT** be run on 50Hz. line without a physical change in the motor.

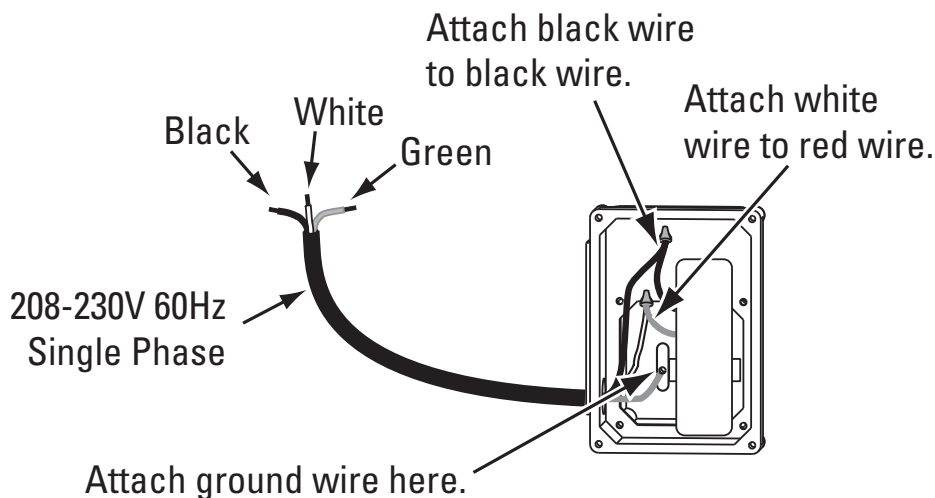
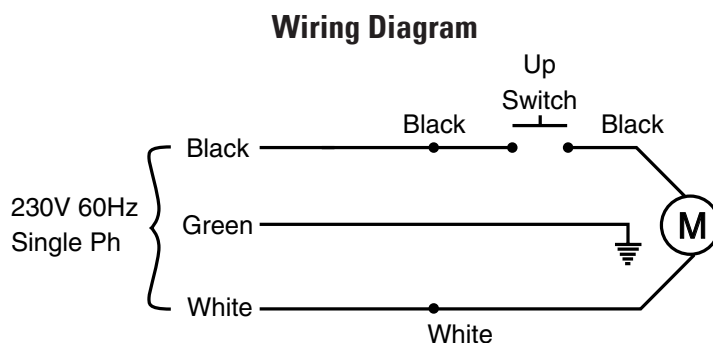


Fig. 9

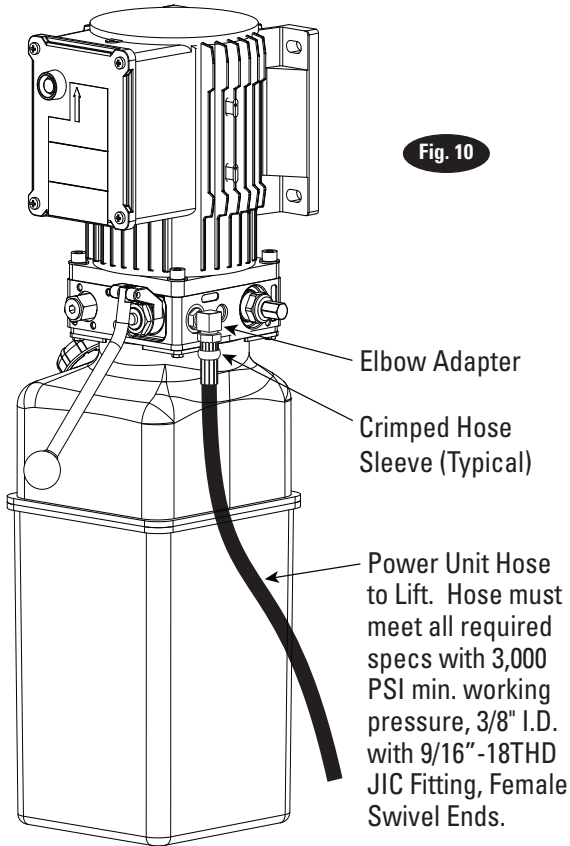
MOTOR OPERATING DATATABLE- SINGLE PHASE	
LINE VOLTAGE	RUNNING MOTOR VOLTAGE RANGE
208-230V 50Hz.	197-253V
208-230V 60Hz.	197-253V



**9. Supply Lines (By Installer):** Remove center cover.

**A. Hose:**

1. Hose must meet 3,000 PSI minimum working pressure, 3/8" I.D. with 9/16"-18THD, JIC fitting, female swivel ends.
2. Hose must be free of debris. Inspect all threads for damage, Fig. 10.
3. Push the hose through the 2" PVC pipe chase from power unit to lift unit.
4. Install hose onto elbow adapter on power unit and to hydraulic fitting in lift containment inlet.



4. Connect shop air supply with factory supplied in-line filter to latch release air valve 1/4" push-in 1/4" NPT fitting, Fig. 11 & Fig. 12.
5. Air line to the lift must be 1/4" polypropylene tubing with a 300 PSI working pressure.
6. Install "PUSH TO RELEASE LATCHES" decal on bracket under air valve lever, Fig. 11.
7. Push air line tubing through the 2" PVC pipe chase from latch release air valve to lift unit.
8. Connect air line tubing to latch release air valve and to air line attached to vertical hose using push union, in lift containment inlet. Place decal on bracket, Figs. 11 & 12.

**10. Fluid Filling:**

- A. System capacity is 19 quarts. Use Dexron III ATF, or Hydraulic Fluid that meets ISO 32 specification.
  - B. Remove fill-breather cap, Fig. 8.
  - C. Pour in 8 quarts of fluid.
  - D. Bleed lift by cycling to full rise several times.
  - E. Fully lower lift.
- IMPORTANT** Lift must be fully lowered before changing or adding fluid.
- F. Add fluid to power unit until it reaches the **MIN** \_\_\_\_\_ mark on the tank.

**Flared Fittings Tightening Procedure**

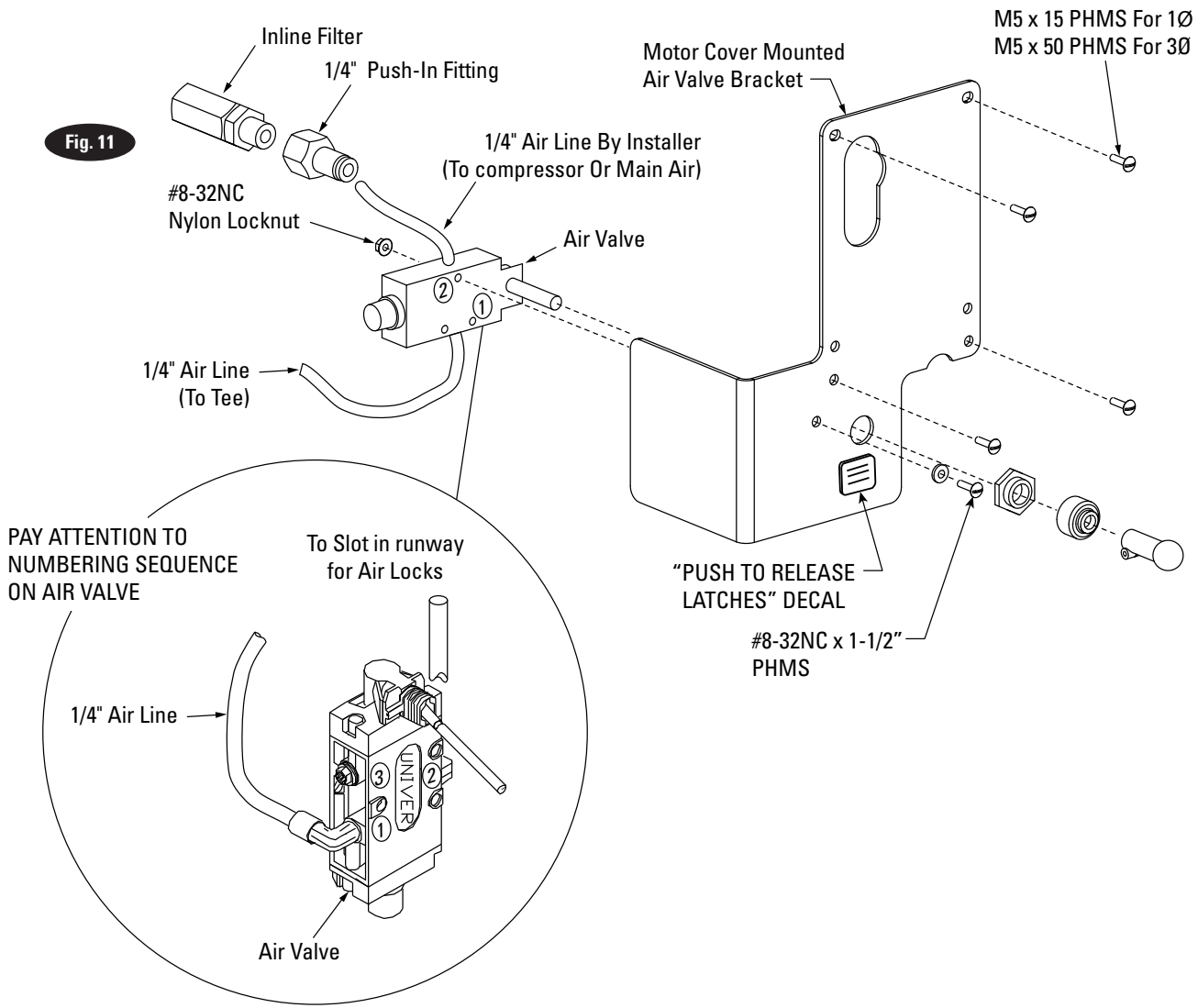
1. Screw the fittings together finger tight. Then, using the proper size wrench, rotate the fitting 2-1/2 hex flats.
2. Back the fitting off one full turn.
3. Again tighten the fittings finger tight; then using a wrench, rotate the fitting 2-1/2 hex flats. This will complete the tightening procedure and develop a pressure tight seal.

**B. Air Line:**

**IMPORTANT** Shop air supply pressure must be between 90 to 120 psi.

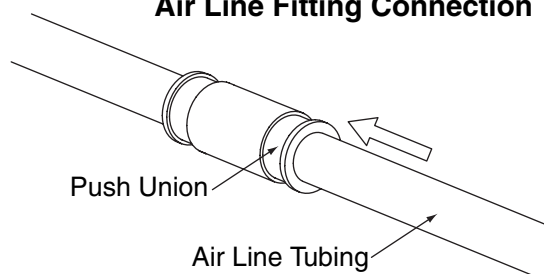
1. Attach brass filter and swivel elbows to air latch, Fig. 11.
2. Install latch release air valve to bracket, Fig. 11.
3. Remove motor warnings decal from motor cover. Mount air lock valve bracket over the power unit cover using the existing cover screws if single phase. If three phase use included longer screws.

**Fig. 11**



**Fig. 12**

### Air Line Fitting Connection



**11. Power Unit (Compact Controls):**

**A. Wall Mounting:** For operating convenience, locate Power Unit bracket so top of bracket will be approximately 56" above floor.

**B.** Locate and mount the power unit bracket, using (4) 3/8" wall anchors, on the wall, Fig. 13. Anchors must be able to hold 20 lbs. of shear force.

**C.** Put (4) 5/16"-18NC x 1-1/2" flanged locking HHCS through wall bracket using push-nuts to hold in place, Fig. 13.

**D.** Mount power unit, with motor up, to the power unit bracket and install (4) 5/16" flanged locking nuts and lock washers, Fig.13.

**I.** Mount power unit, with motor up, to the power unit bracket and install (4) 5/16" nuts and lock washers, Fig.15.

**12. Hose And Elbow Attachment (Hose Provided By Installer):**

**A.** Hose must meet 3,000 PSI minimum working pressure, 3/8" I.D. with 9/16-18THD, JIC fitting, female swivel ends.

**B.** Hose must be free of debris. Inspect all threads for damage.

**C.** Install hose onto elbow adapter on power unit, Fig. 16.

**D.** Do not route hose to lift at this time.

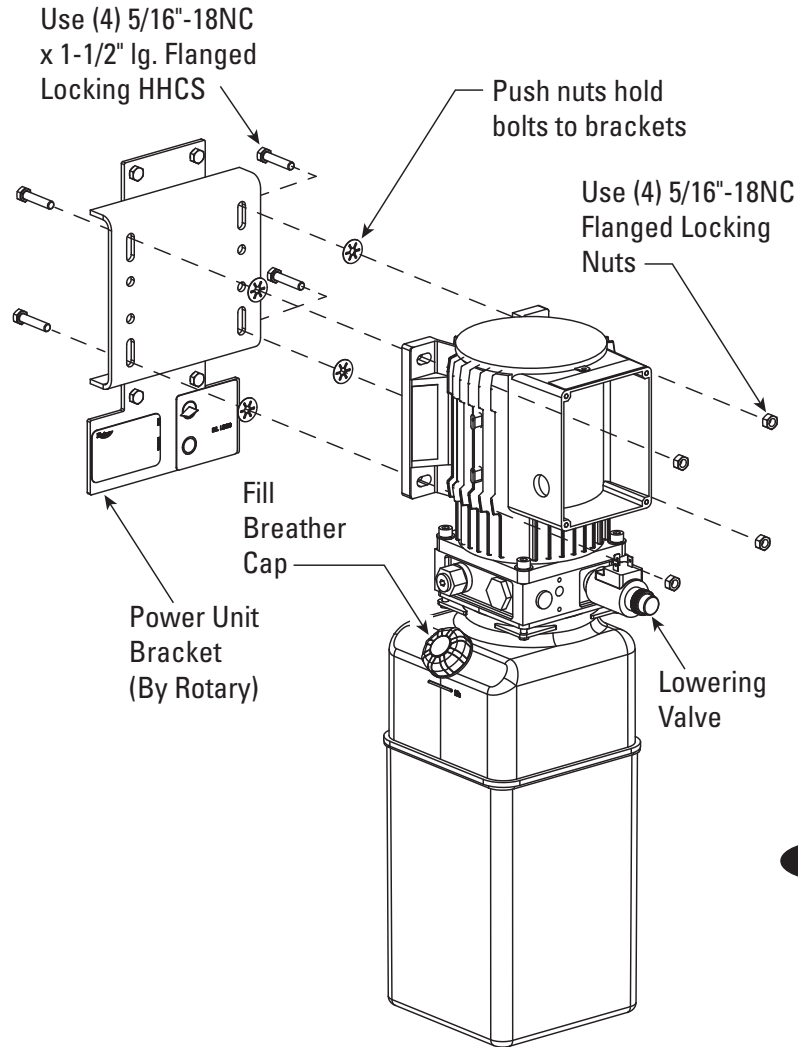


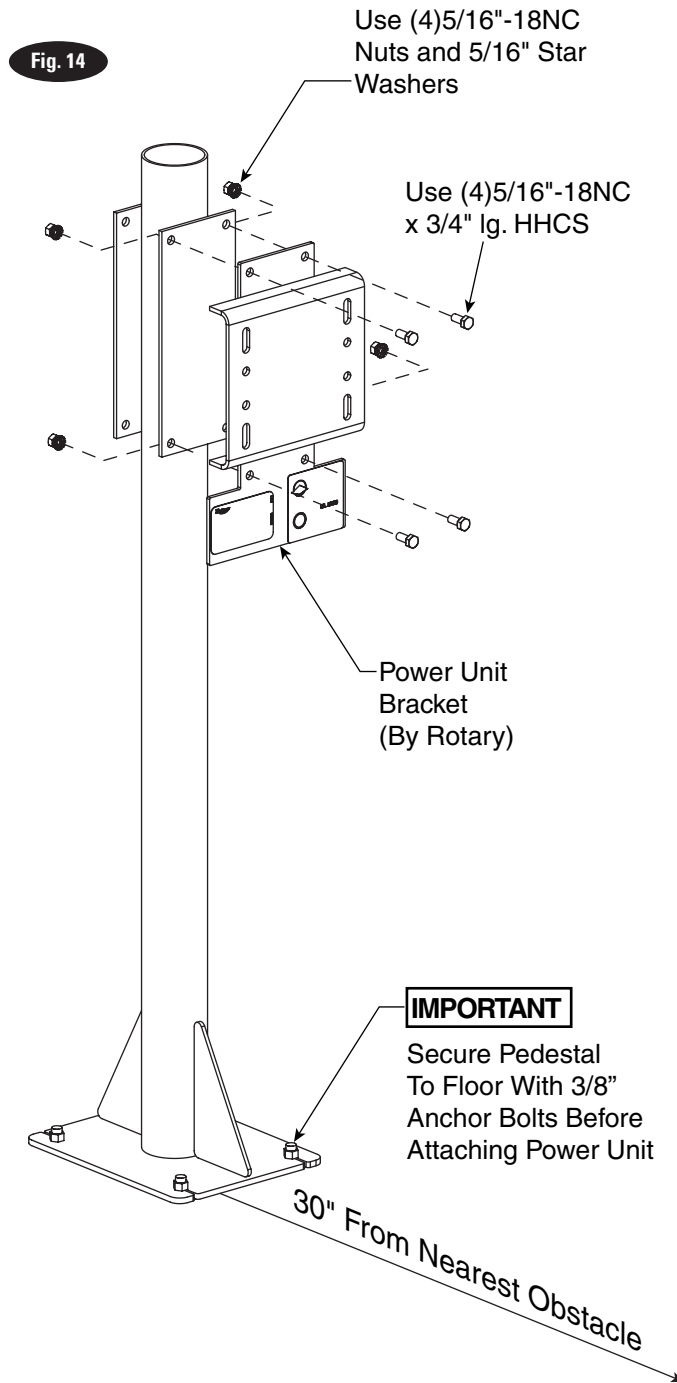
Fig. 13

**E. Pedestal Mounting:** Pedestal must be anchored to the floor with 3/8" anchor bolts before attaching power unit, Fig. 14.

**F.** Use base for pattern to mark holes for anchoring. Pedestal must be anchored at least 30" away from the any obstacle to allow for wiring and maintenance of the power unit, Fig 14.

**G.** Mount power unit bracket to pedestal with (4) 5/16"-18NC x 1-1/2" HHCS, (4) 5/16" nuts and lock washers, Fig. 14.

**H.** Put (4) 5/16"-18NC x 1-1/2" HHCS through power unit bracket using push-nuts to hold in place, Fig. 15.



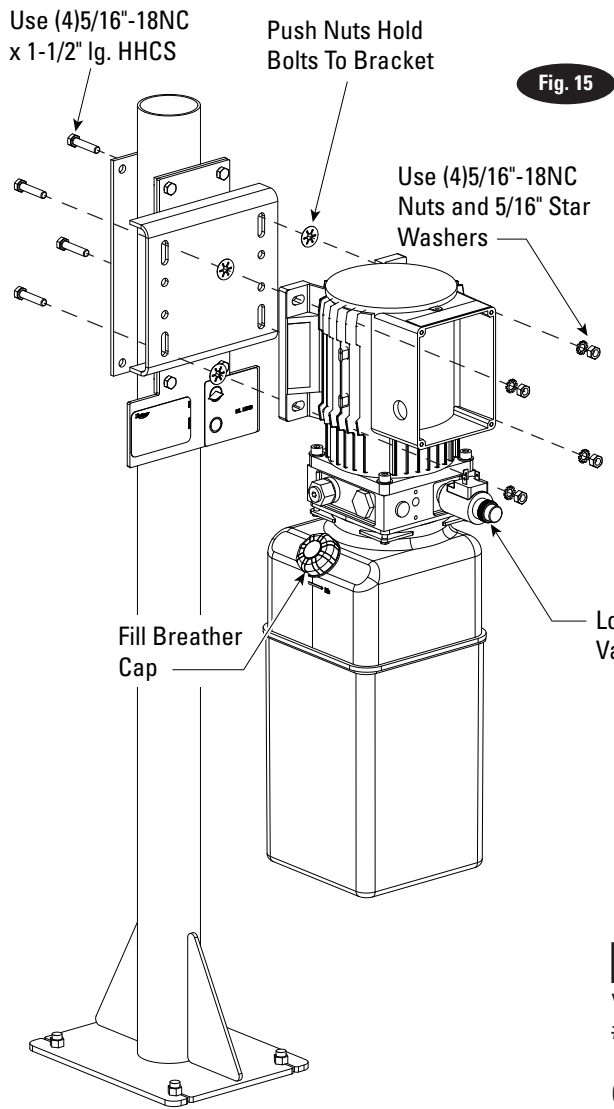


Fig. 15

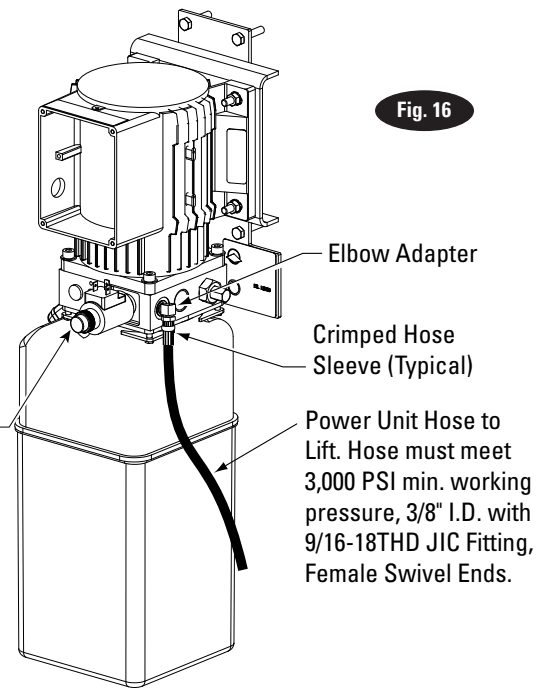


Fig. 16

**13. Mounting Master Control Panel, Fig. 17:**

- A. Remove front cover of Master Control by unscrewing the (4) screws and unplugging the harness.
- B. Remove covering over the front of the capacitor box on the motor of the power unit and find gasket.
- C. Place gasket on the front of the capacitor box, Fig. 17.
- D. Route (2) motor wires through gasket and the hole in the back of Master Control Box. Fasten to indicated locations on terminal block, Fig. 17.
- E. Route green ground wire through gasket and fasten to the ground screw inside the capacitor box of the motor, Fig. 17.
- F. Have a certified electrician run appropriate power supply to the side of the capacitor box of the motor and run the ground wire and power wires through the gasket and the hole in the back of the master control box. Fasten the ground wire to the additional ground screw in back plate and fasten the (2) power wires to the indicated locations on the terminal block.

**ATTENTION** Fasten spade terminals to the ends of the wires sized for fastening to a #8 screw for 1 phase and #A6 screw for 3 phase, Fig. 17.

- G. Fasten the Master Control Box with the (4) M5x10 PHMS included making sure the gasket seats between the capacitor box sides and the back of the Master Control Box, Fig. 17.
- H. Push excess ground and power wires into the capacitor box behind the control, Fig. 17.
- I. Orient bulkhead for input air to desired position and tighten securely, Fig. 17.
- J. Plug harness and reattach cover of the master control box, making sure all wires are inside the box and plug is above the terminal block, Fig.17.

**CAUTION** Never operate the motor on line voltage less than 208V. Motor damage may occur.

**IMPORTANT** Use separate circuit for each power supply. Protect each circuit with time delay fuse or circuit breaker. For single phase 208-230V, use 20 amp fuse, and three phase use 20 amp fuse. For three phase 460V, use 10 amp fuse. All wiring must comply with NEC and all local electrical codes.

**Note:** Standard single phase motor CAN NOT be run on 50Hz. line without a physical change in the motor.

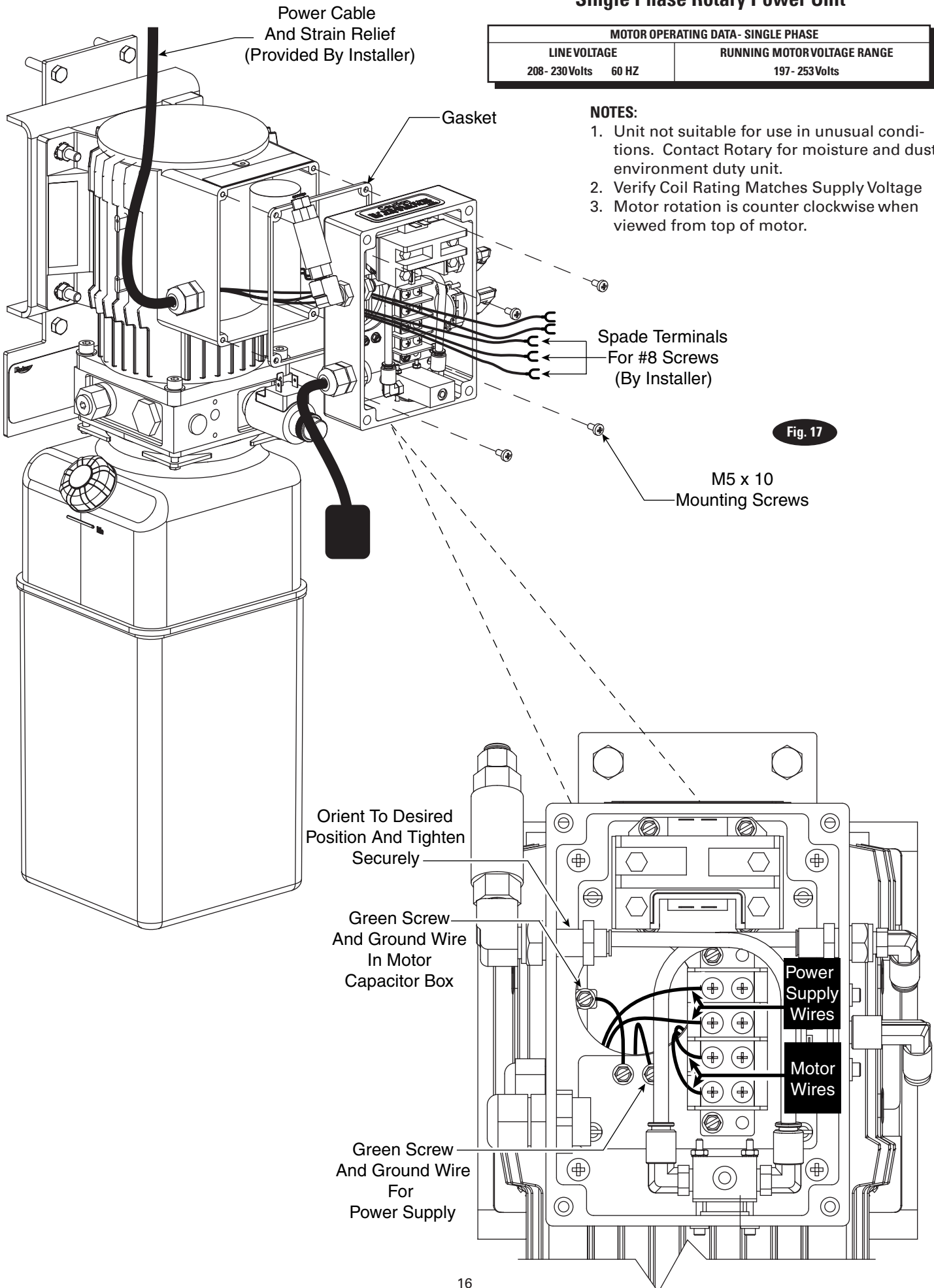
Wire motor according to wiring diagram provided.

# Single Phase Rotary Power Unit

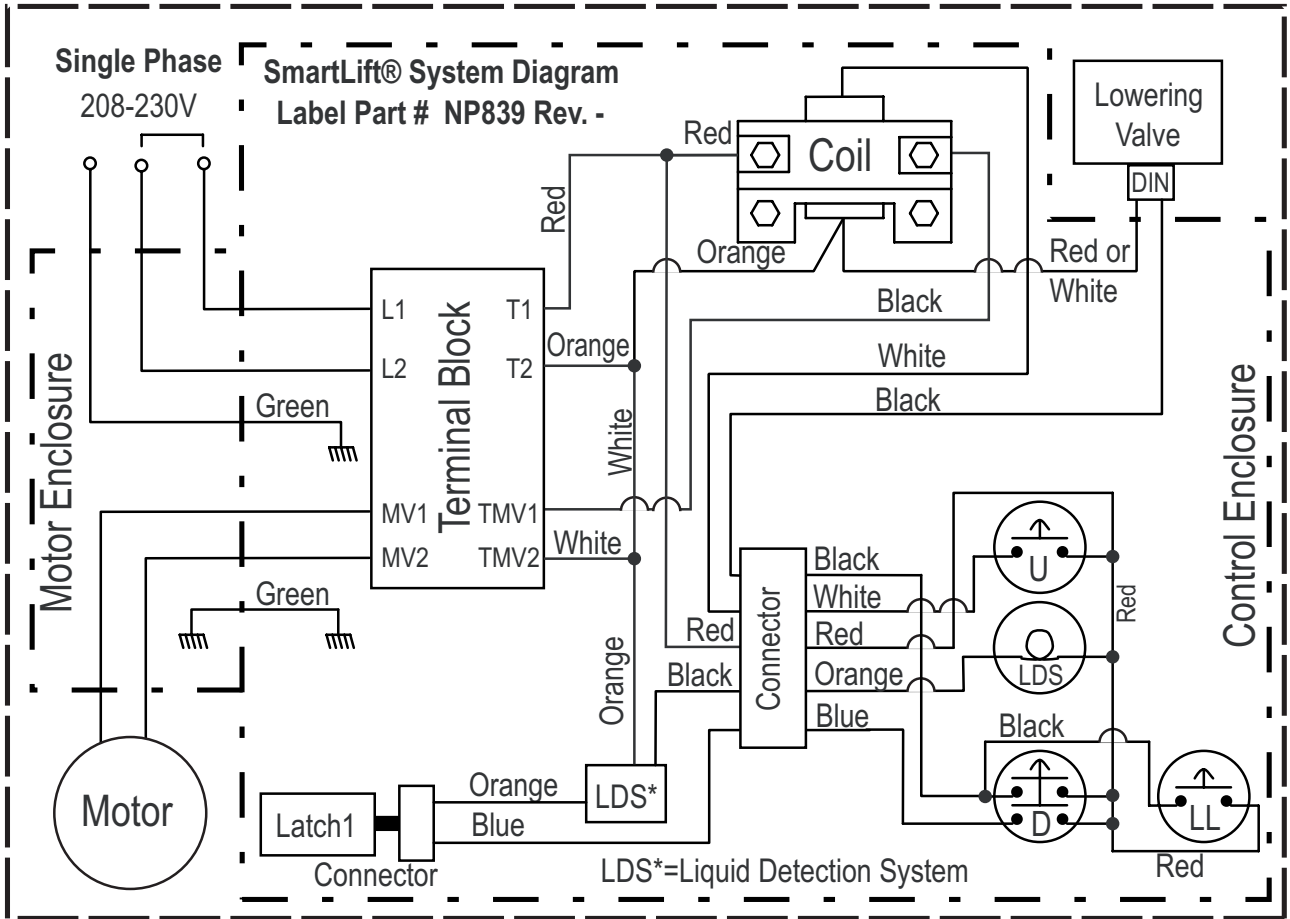
MOTOR OPERATING DATA - SINGLE PHASE	
LINE VOLTAGE	RUNNING MOTOR VOLTAGE RANGE
208- 230 Volts 60 HZ	197 - 253 Volts

**NOTES:**

1. Unit not suitable for use in unusual conditions. Contact Rotary for moisture and dust environment duty unit.
2. Verify Coil Rating Matches Supply Voltage
3. Motor rotation is counter clockwise when viewed from top of motor.





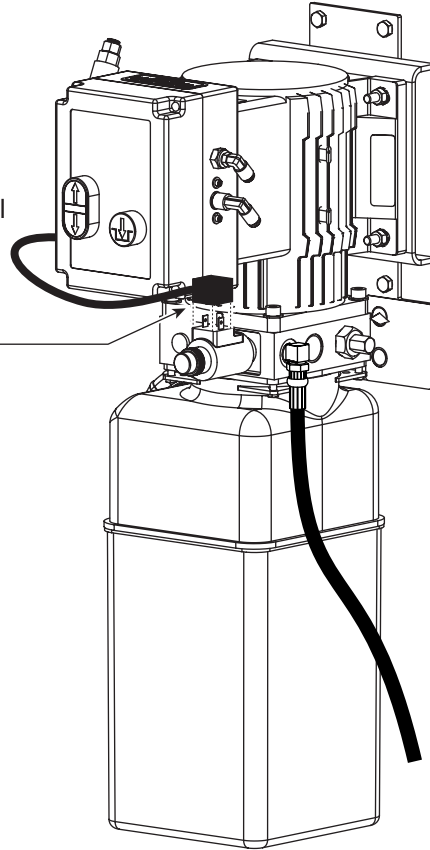


**14. Lowering Valve:**

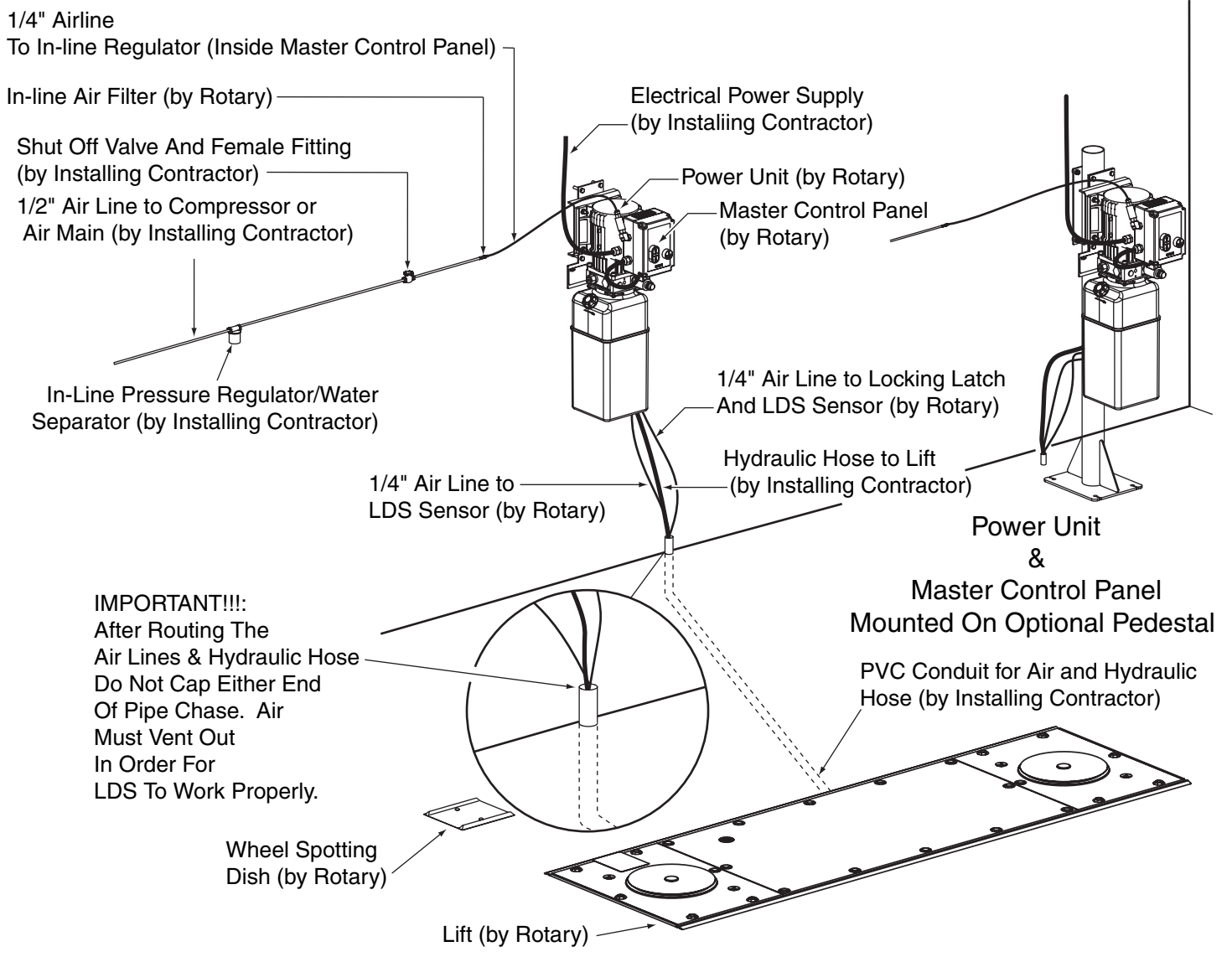
Plug Lowering Valve cord from master control panel into lowering valve on power unit, Fig. 18.

**Fig. 18**

Lowering Valve Cord  
From Master Control Panel  
Plugs Into Lowering Valve  
Tighten Screw On  
Top Of Plug After  
Plugging In



**Fig. 19**



\*LDS = Liquid Detection System

**15. Supply Lines (By Installer):** Remove duct tape and center cover. Set Bolts and seal aside, taking care not to damage seal.

**A. Hose:**

1. Push the hose through the 2" PVC pipe chase from power unit to lift unit, Fig 19 & Fig. 23.

2. Install to hydraulic fitting in lift containment inlet.

**B. LDS Assembly:**

1. Remove sensing tube from inside of lift containment.

2. Install sensing tube into LDS valve assembly as shown, Fig. 20. Sealant may be required on threads to ensure air tight connection. Connection must be air tight to 90 PSI. Hand tighten tube then turn an additional 2 turns; maximum engagement is 3/8".

3. Install LDS system onto the channel that the sensing tube was shipped in, making sure to place sensing tube inside wire ties, Fig. 21.

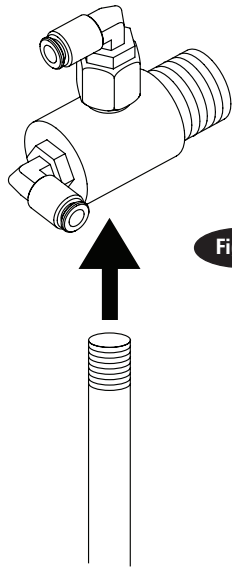


Fig. 20

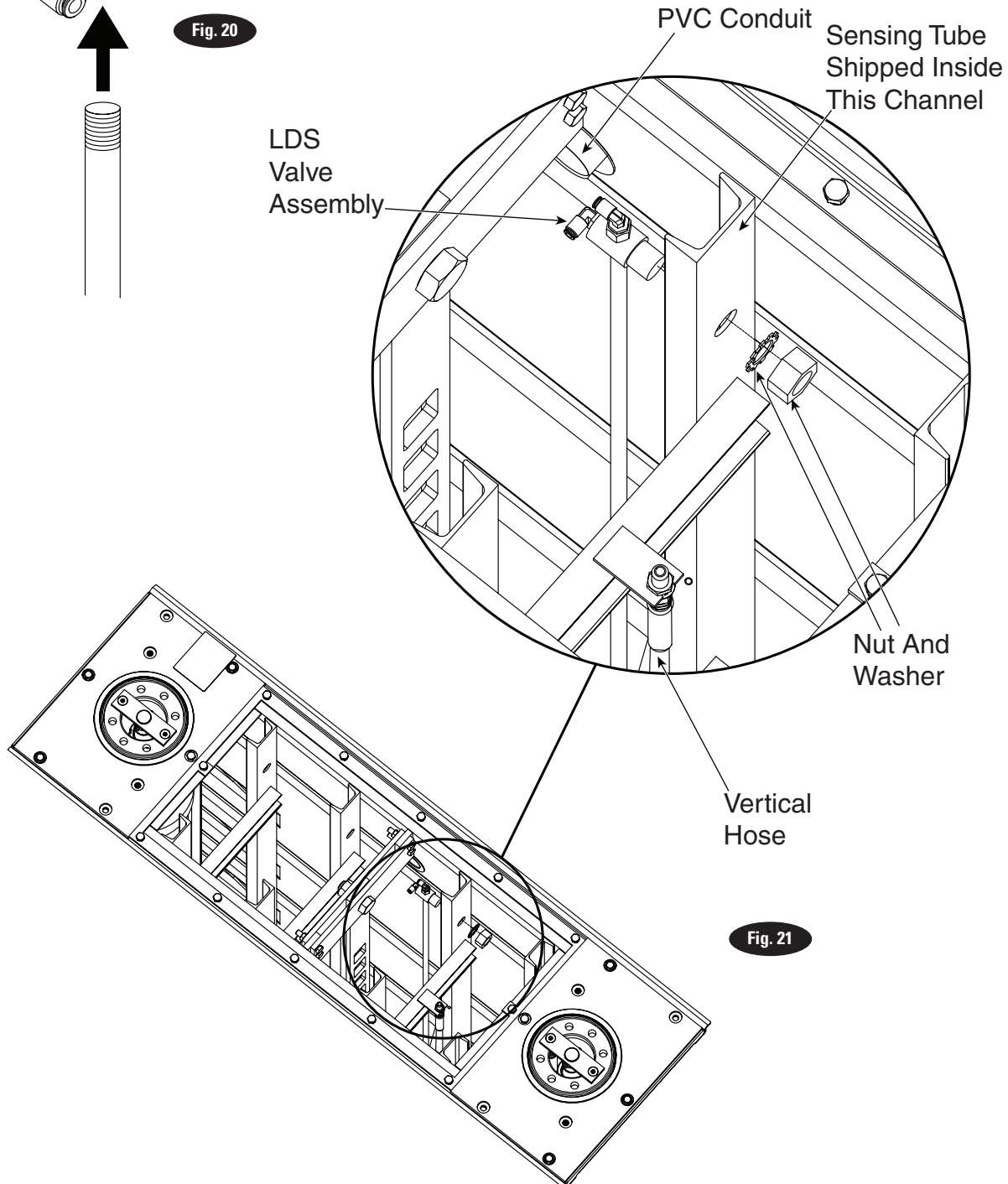


Fig. 21

C. Air Lines:

**IMPORTANT** Shop air supply pressure must be between 90 to 120 psi.

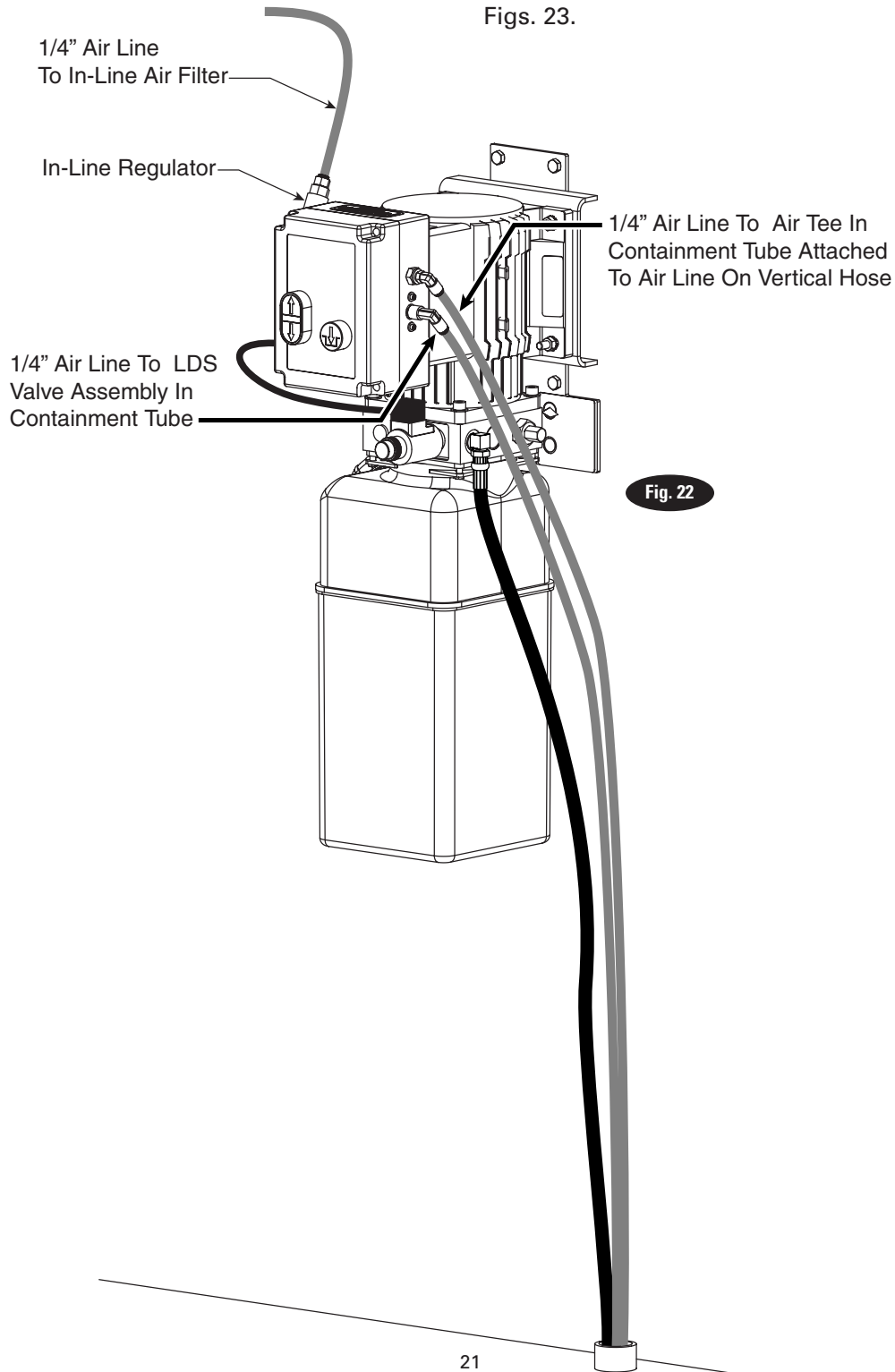
1. Install in-line air filter and female 1/4" pipe to 1/4" tube fitting, Fig. 19.
2. Cut to fit 1/4" air line and attach it to the in-line air filter and inline regulator on master control panel, Fig. 22.
3. Attach 1/4" polypropylene tubing into (2) elbows on the side of the Master Control Panel, Fig 22.
4. Push the tubing through the 2" PVC pipe chase to the LDS\* valve assembly, Fig. 23.

5. Cut to fit 1/4" air line and run it from air line attached to vertical hose using the union tee to the top elbow of the LDS\* assembly, Fig.23, inside the lift.

**NOTE: All 1/4" polypropylene air line must have a 300 PSI working pressure.**

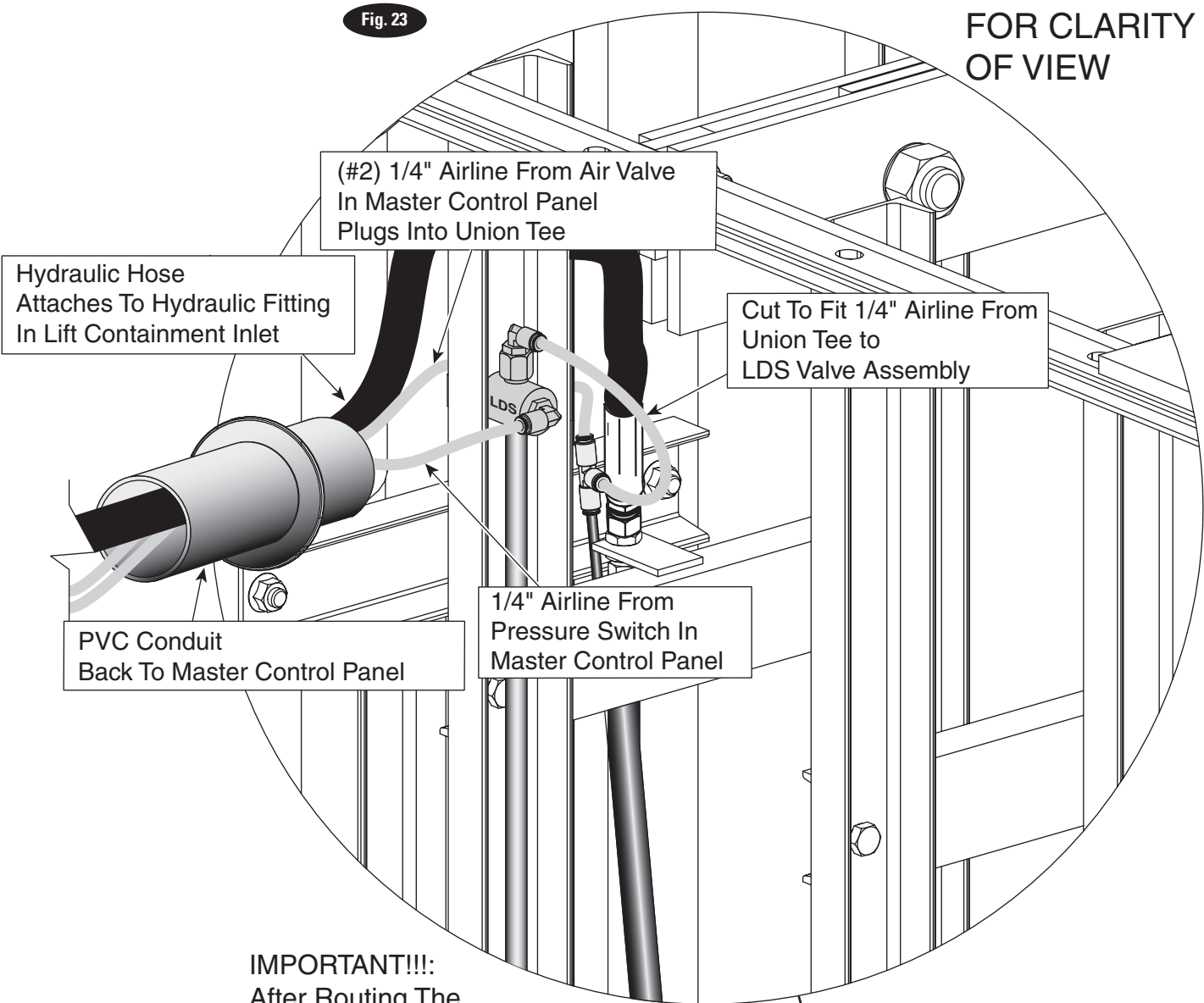
**IMPORTANT** Failure to connect air lines properly will cause a fault error on the master control panel.

**IMPORTANT** After routing the air lines and hydraulic hose **DO NOT** cap either end of the PVC conduit. Air must vent out in order for the LDS\* to work properly, Figs. 23.



CONTAINMENT  
NOT SHOWN  
FOR CLARITY  
OF VIEW

Fig. 23



Hydraulic Hose  
Attaches To Hydraulic Fitting  
In Lift Containment Inlet

(#2) 1/4" Airline From Air Valve  
In Master Control Panel  
Plugs Into Union Tee

Cut To Fit 1/4" Airline From  
Union Tee to  
LDS Valve Assembly

PVC Conduit  
Back To Master Control Panel

1/4" Airline From  
Pressure Switch In  
Master Control Panel

**IMPORTANT!!!:**  
After Routing The  
Air Lines & Hydraulic Hose  
Do Not Cap Either End  
Of PVC Conduit. Air  
Must Vent Out  
In Order For  
LDS To Work Properly.

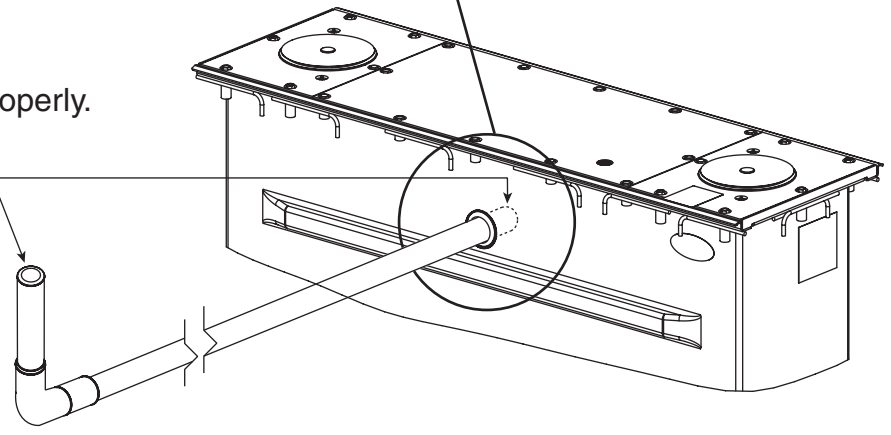
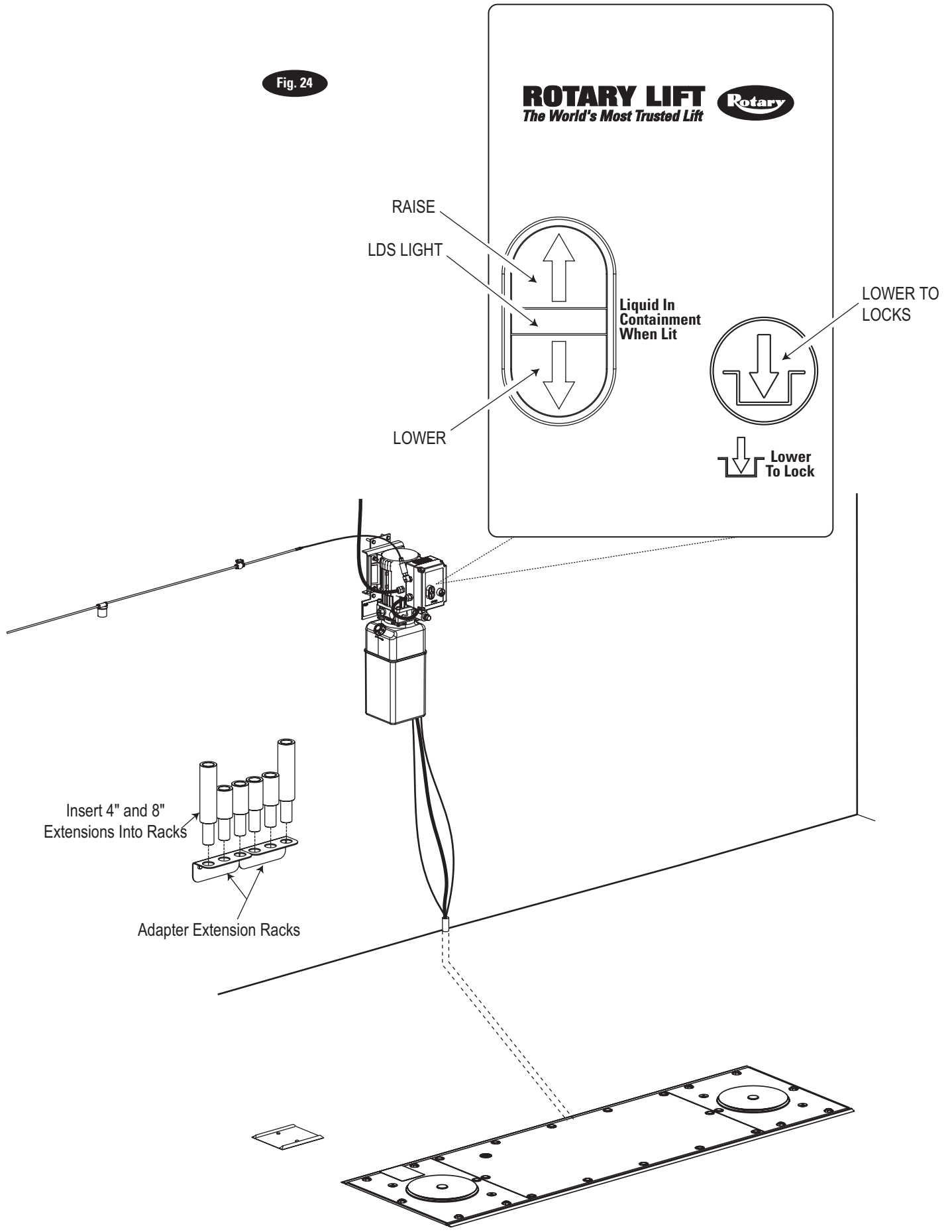


Fig. 24



**16. Console Mounting:**

**A.** Mount console into bench per bench manufacturer's instructions. See Fig. 25 for dimensional data of the console the power unit is shown for additional dimensional data.

**8. Console Mounting:**

**B.** Remove the front panel and one side of the console and mount power unit as shown using (4) 5/16"-18-NC x 1" flanged bolts and nuts, Fig. 26.

**Note: the power unit tank can be rotated to allow access to the fill cap for the hydraulic fluid.**

**Group 24 Batteries:** (2) 12 volt group 24 car batteries are required to operate the lift and are not included. The batteries must be mounted inside the cabinet using the included battery trays, Figure 27.

**17. DC Control Cables:**

- A.** First, make sure that the disconnect switch is in the "off" position. Refer to Figure 27 and the wiring diagram on the inside of the top plastic cover while fastening the following cables and wires.
- B.** Fasten the red FA7671 cable, shipped connected to the motor contactor, to the positive motor terminal.
- C.** Attach the red FA7616 cable, shipped connected to the disconnect, to the positive terminal of the front battery using the included terminal connectors.
- D.** Connect the red FA7619 cable to the negative terminal of the front battery and positive terminal of the rear battery using the included terminal connectors.
- E.** Connect the black FA982 wire, shipped connected to the ground post, to the negative terminal of the rear battery, using the included terminal connector.
- F.** Connect the black FA7668 cable to the negative terminal of the motor and the negative terminal of the lower battery.

**CAUTION** Connect the black FA7668 cable to the motor last.

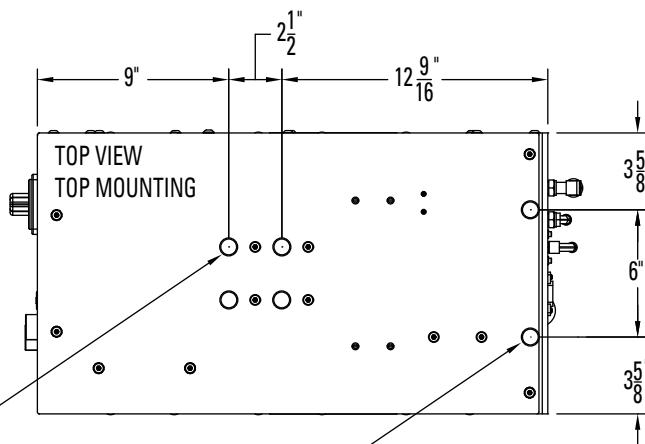
Recommended Battery Specifications		
	Normal Operation and Life	High Use (15 minutes or less between lift cycles) or increase in life under normal use
Battery Type	Standard Lead Acid	Absorbed Glass Mat (AGM) Technology
Voltage	12V	12V
Size	Group 24	Group 24
Cold Cranking Amps	525	710
Terminal Location	Top	Top
<b>Note:</b> If a single battery fails during use the system should be evaluated to determine if the second battery should be replaced at the same time to avoid down time at a later date due to issues with the battery.		

Figure 27 Cable Connections	
Follow these steps in order: <b>Note wires and cables are labeled with a part number.</b>	
Step 1- Balloon 1	Attach included terminal connections to battery posts
Step 2- Balloon 2	Motor contactor: Red FA7671 Cable to Motor Positive +
Step 3- Balloon 3	Front battery positive terminal: • Red FA7616 Cable
Step 4- Balloon 4	Front battery negative terminal: • Red FA7619 Cable
Step 5- Balloon 5	Rear battery positive terminal: • Red FA7619 Cable
Step 6- Balloon 6	Rear battery negative terminal: • Black FA982 Wire • Black FA7668 Cable



# ShockWave Control Panel Overview With Power Unit Shown

13/32" Holes For Front Attachment  
Must Be Able To Support  
45 lbs. ea. (20kg) The 4 Screws  
Provided Adjacent To These  
Holes Are Not Required And  
Can Be Removed During  
Installation.



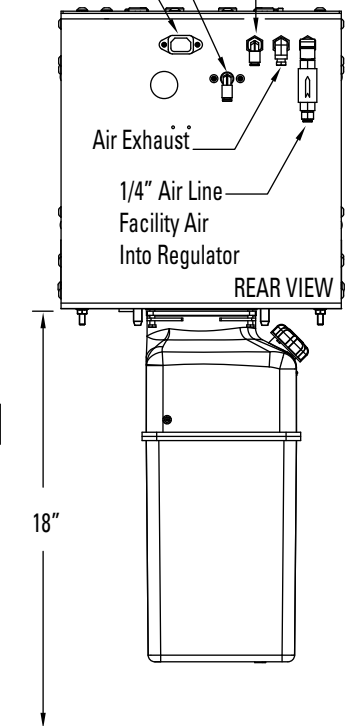
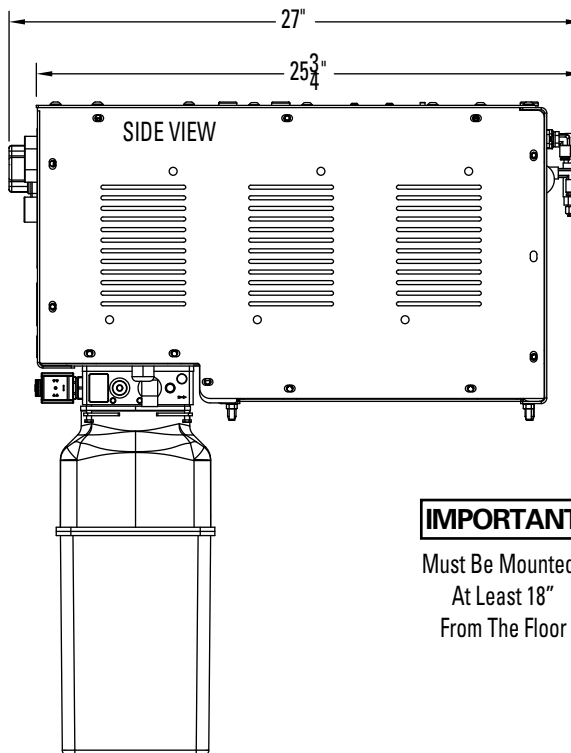
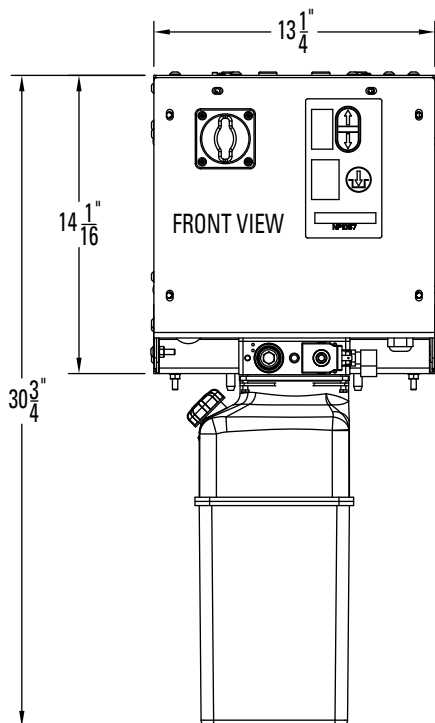
**Fig. 25**

13/32" Holes For Rear Attachment  
Must Be Able To Support  
15 lbs. ea. (7kg)

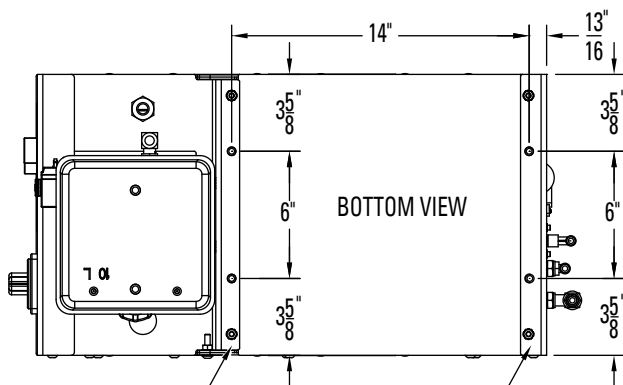
1/4" Air Line to LDS Sensor  
Attaches To Female Connector  
On Pressure Switch On Control  
Bracket

1/4" Air Line To Locking  
Latch and LDS Sensor

Plug For Battery Charger Cable



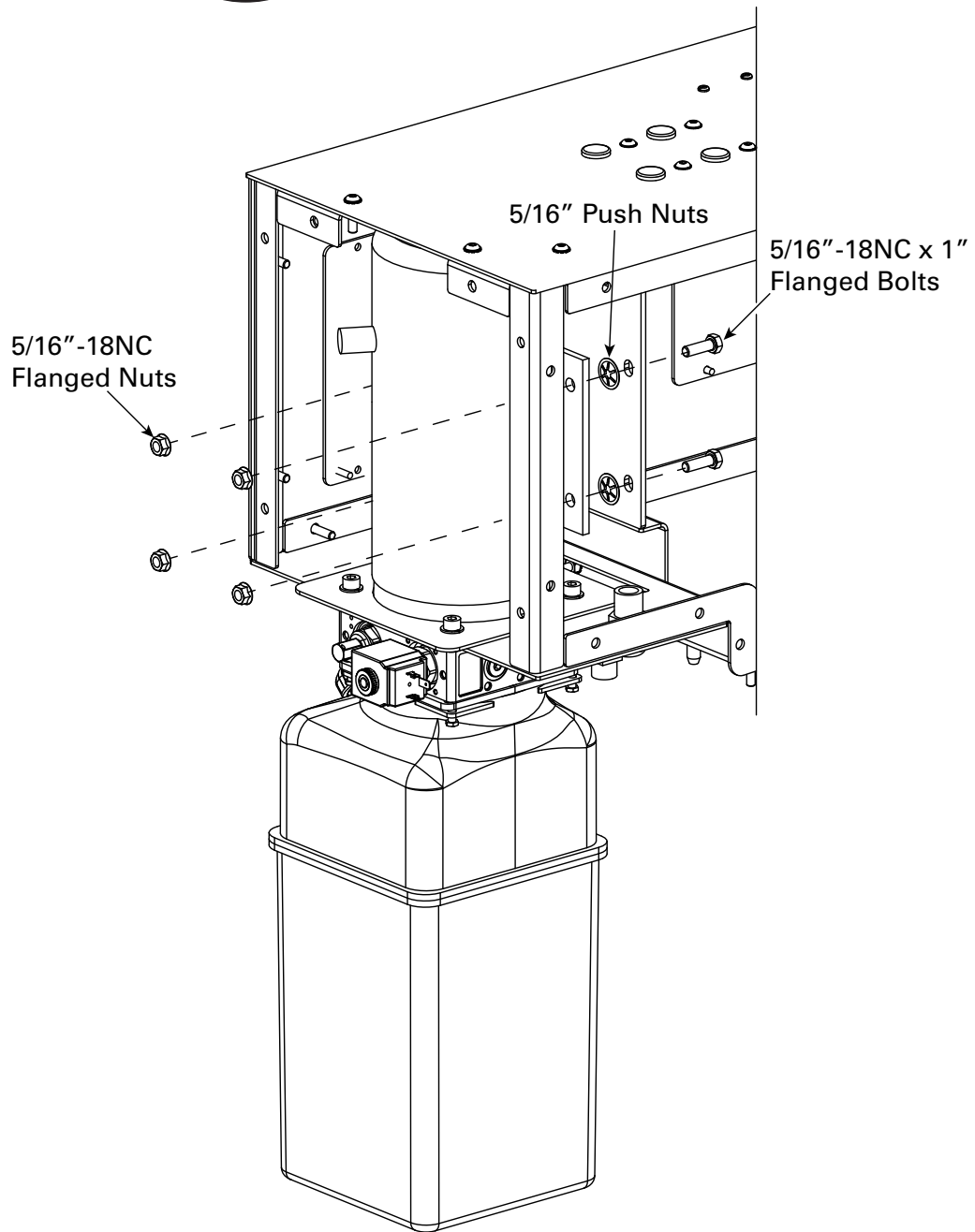
**IMPORTANT**  
Must Be Mounted  
At Least 18"  
From The Floor



If Mounting On The Bottom  
This Bar Must Be Supported  
To Carry A Load Of 180 lbs. (82kg.)

If Mounting On The Bottom  
This Bar Must Be Supported  
To Carry A Load Of 30 lbs. (14kg.)

Fig. 26



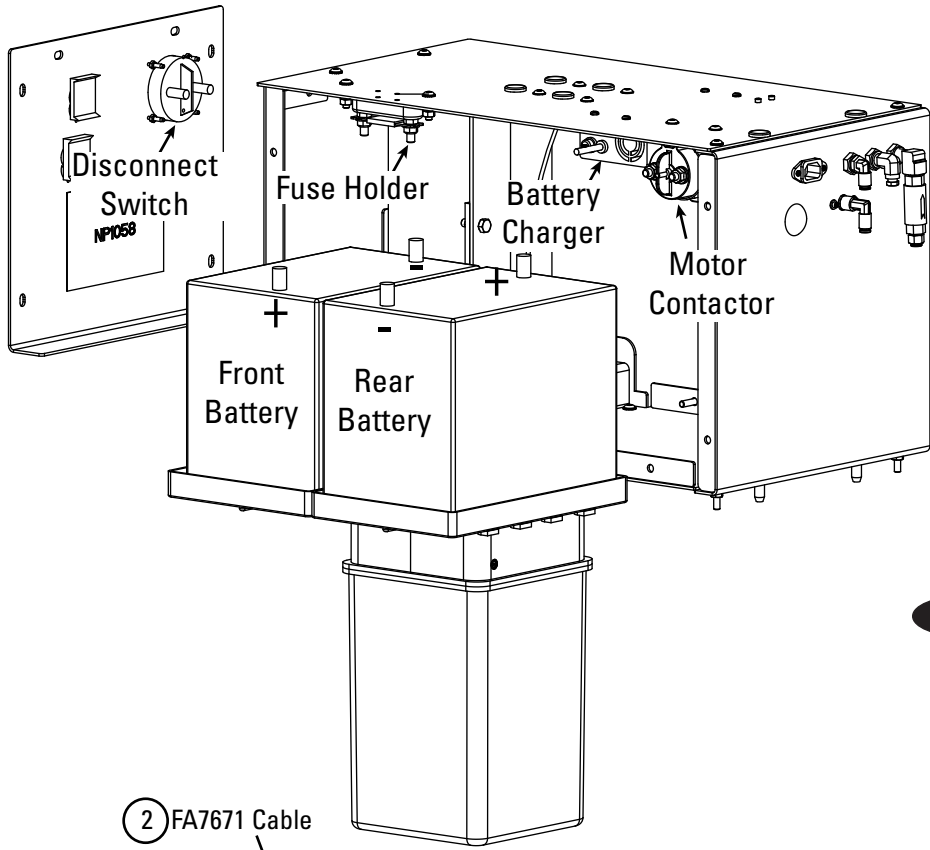
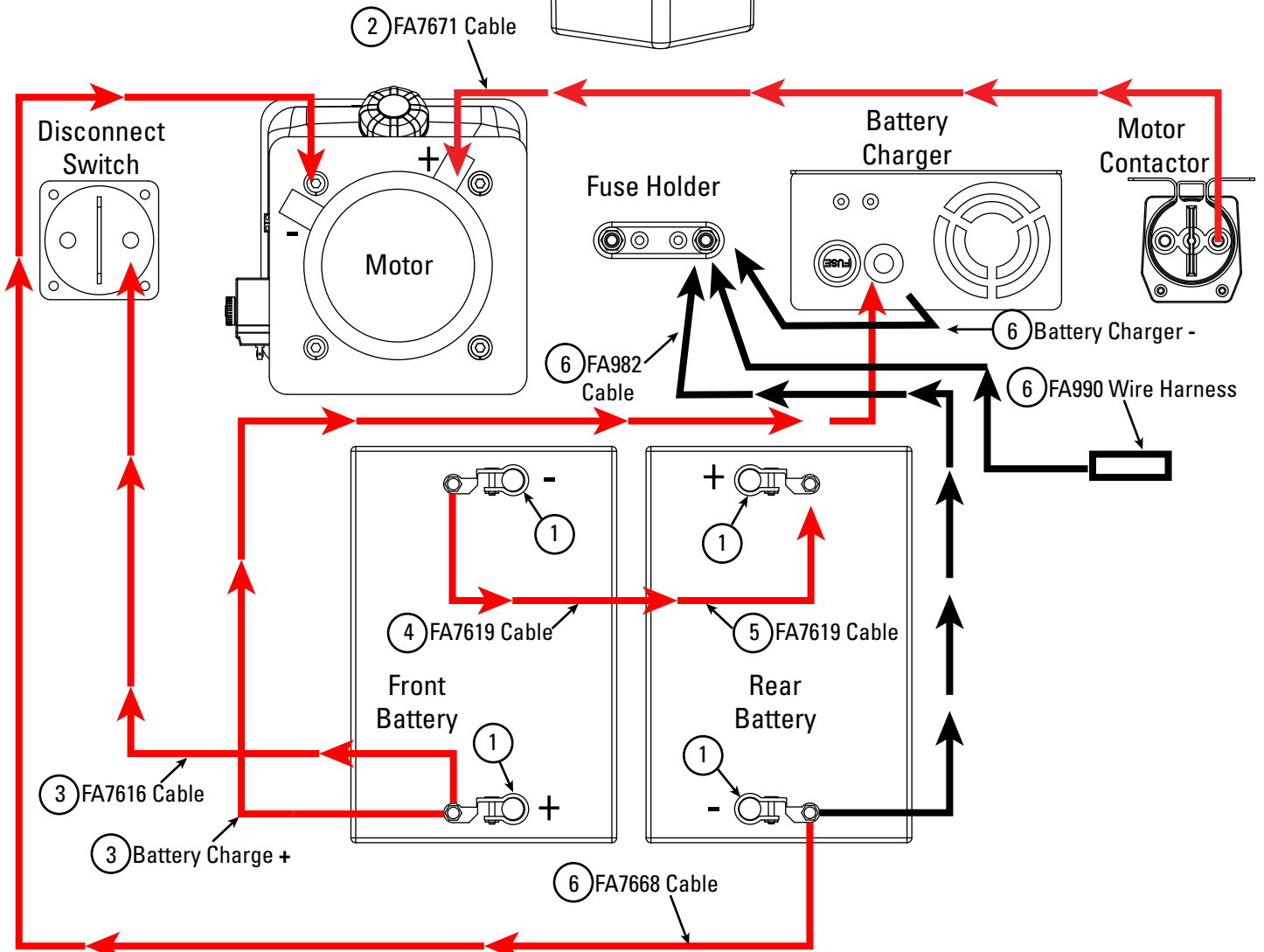


Fig. 27



## 18. Lowering Valve Connections:

A. Connect DIN connector onto lowering valve cable after routing cord through the cord grip. The cord grip can be installed on either side of the motor, Fig. 28.

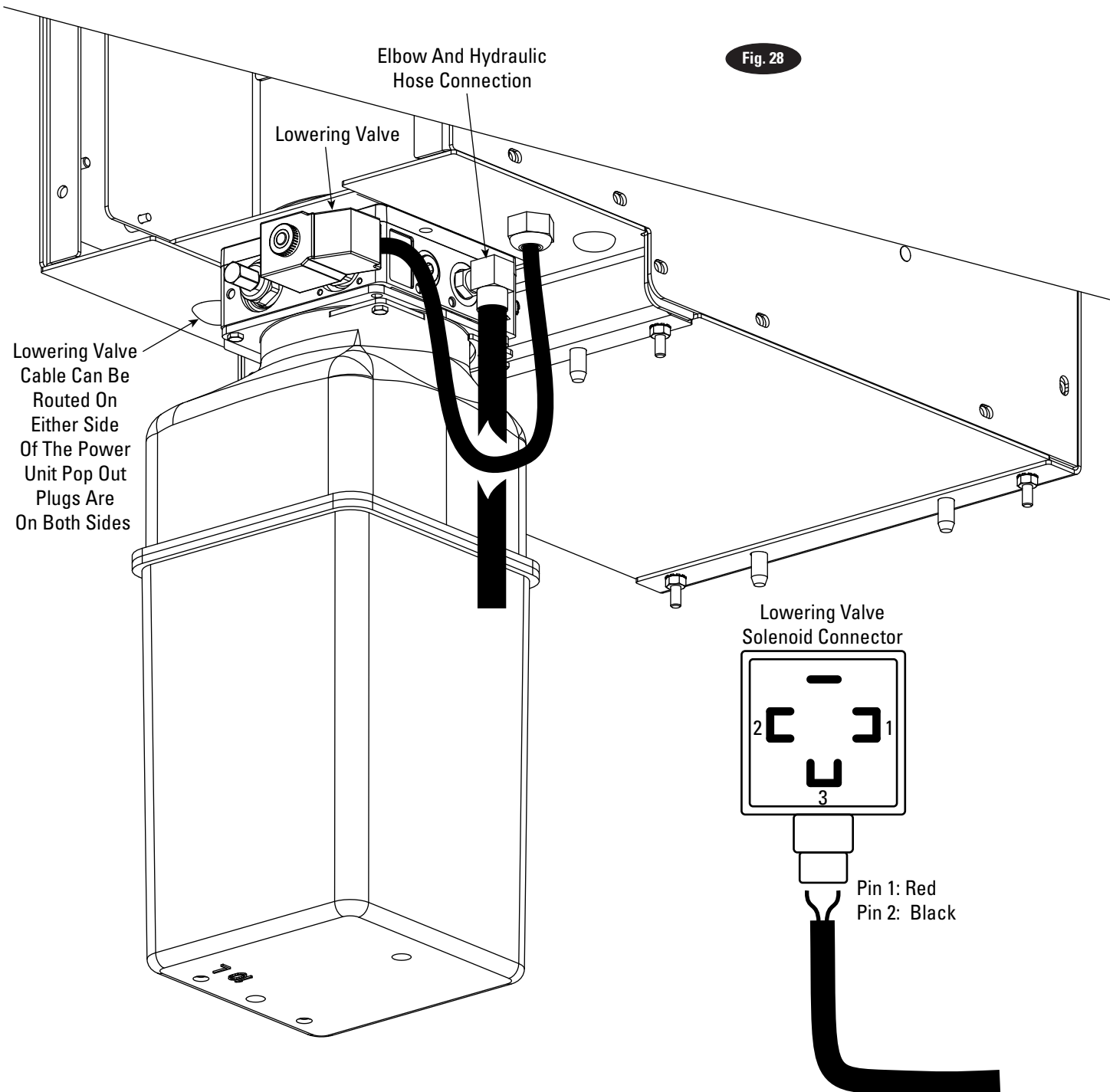
## 19. Hose And Elbow Attachment (Hose Provided By Installer):

A. Hose must meet Dayco EZ Flex 150 or equivalent specs. with 3,000 PSI minimum working pressure, 3/8" I.D. with 9/16-18THD, JIC fitting, female swivel ends.

B. Hose must be free of debris. Inspect all threads for damage.

C. Install hose onto elbow adapter on power unit, Fig. 28.

D. Do not route hose to lift at this time.



## 20. Supply Lines (By Installer):

Remove duct tape and center cover. Set Bolts and seal aside, taking care not to damage seal.

### A. Hose:

1. Push the hose through the 2" PVC pipe chase from power unit to lift unit, Fig 29 & Fig. 32.
2. Install to hydraulic fitting in lift containment inlet.

### B. LDS (\*LDS = Liquid Detection System) Assembly:

1. Remove sensing tube from inside of lift containment.
2. Install sensing tube into LDS valve assembly as shown, Fig. 30. Sealant may be required on threads to ensure air tight connection. Connection must be air tight to 90 PSI. Hand tighten tube then turn an additional 2 turns; maximum engagement is 3/8".
3. Install LDS system onto the channel that the sensing tube was shipped in, making sure to place sensing tube inside wire ties, Fig. 31.

### C. Air Lines:

**IMPORTANT** Shop air supply pressure must be between 90 to 120 psi.

1. Install Inline Air Filter, see Fig 29.
2. Cut to fit 1/4" polypropylene air line and run it from the Inline Air Filter to the Inline Regulator on the back of the Control Cabinet, see Fig. 29.
3. Cut to fit 1/4" polypropylene air line and run it from the lowering valve air fitting, Fig. 29, to the male tee in the containment (located on the lift frame) by routing the air line through the 2" PVC pipe conduit to the lift, Fig. 32.
4. Cut to fit 1/4" polypropylene air line and run it from the LDS Switch, see Fig. 29, to the LDS\* Valve Assembly by routing the air line through the 2" PVC pipe conduit, Fig. 32.
5. Cut to fit 1/4" air line and run it from the air line attached to the vertical hose using the union tee to the top elbow of the LDS\* assembly, inside the lift, Fig.32.

**NOTE: All 1/4" polypropylene air line must have a 300 PSI working pressure.**

**IMPORTANT** After routing the air lines and hydraulic hose DO NOT cap either end of the PVC conduit. Air must vent out in order for the LDS\* to work properly, Fig 32.

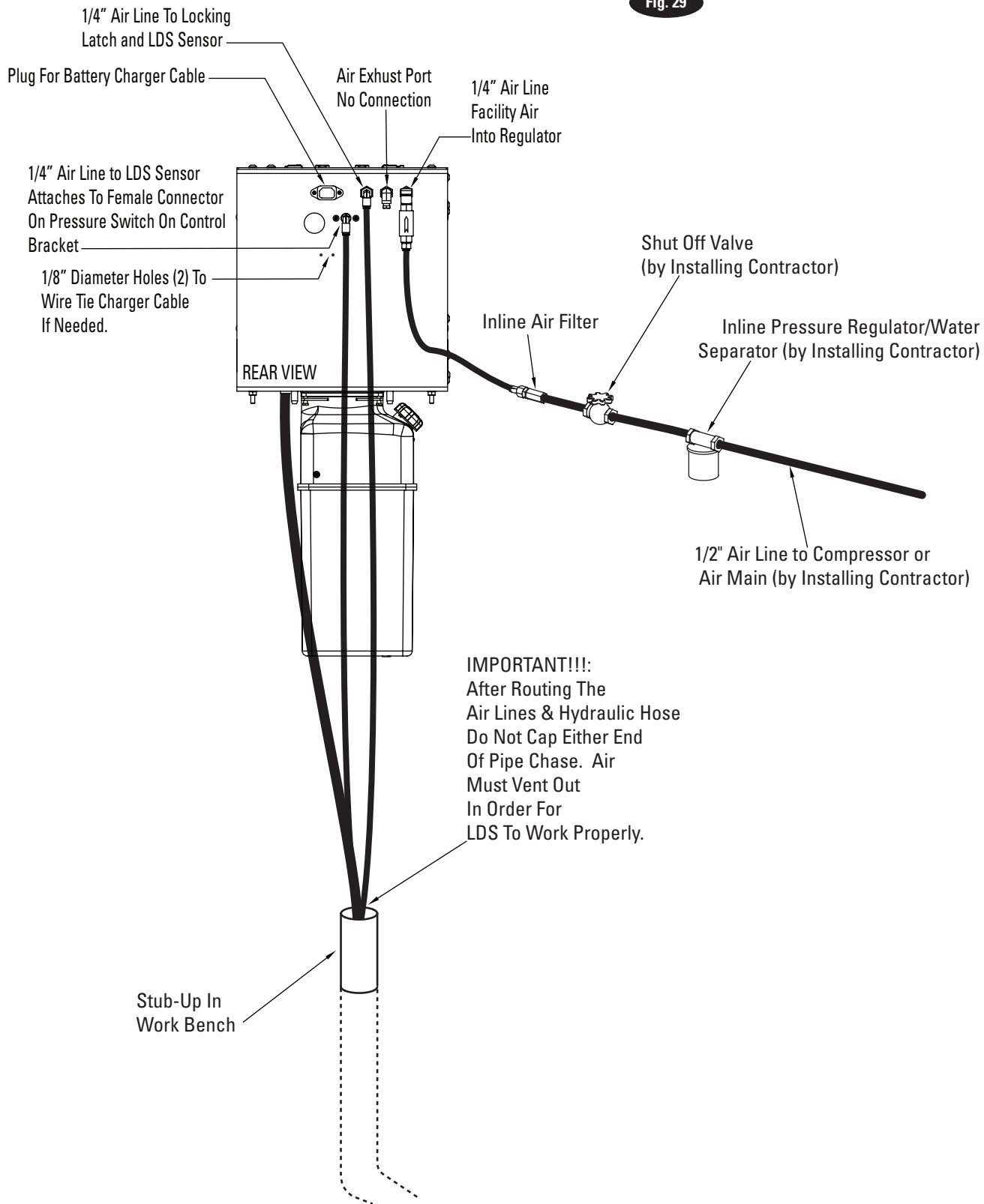
### D. Charger Cable:

Plug the male end of the 10 foot charger cable into the receptacle on the back of the DC control cabinet, Fig. 29. Plug the other end into a 120 volt 15 amp receptacle. Check to make sure the charger lights are on. If charger lights are not on, flip switch on back of charger. A red wire tie (BO84) is provided along with (2) 1/8" diameter holes to tie off cable if needed for strain relief.

**CAUTION: Never operate the motor on line voltage. Motor damage may occur.**

LIFT ELECTRICAL INPUT: 110-120 Volt, 60 Hz, 3.15 Amps

Fig. 29



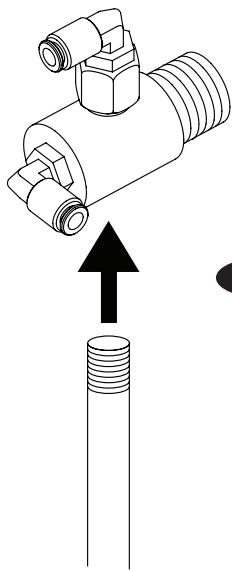


Fig. 30

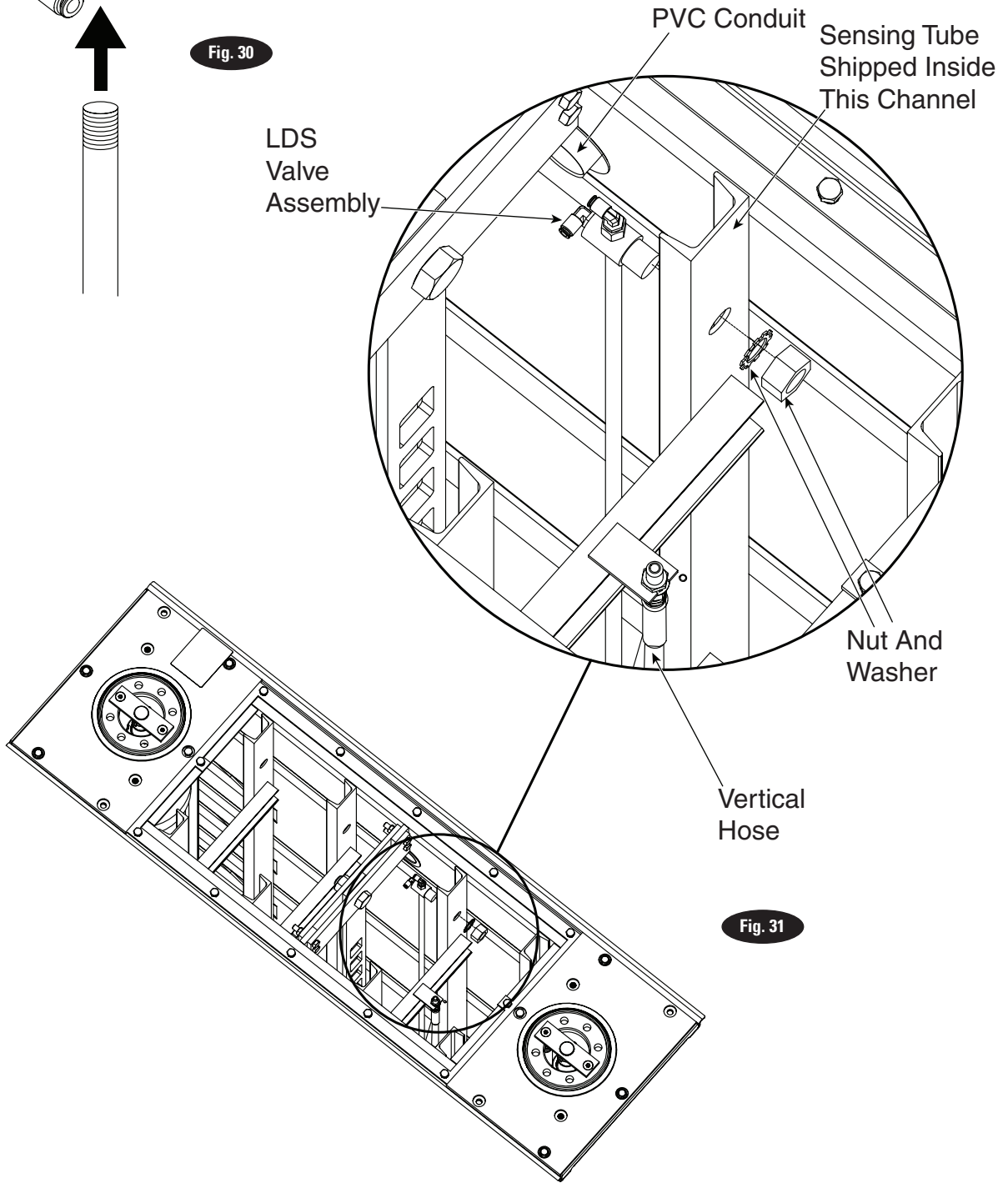
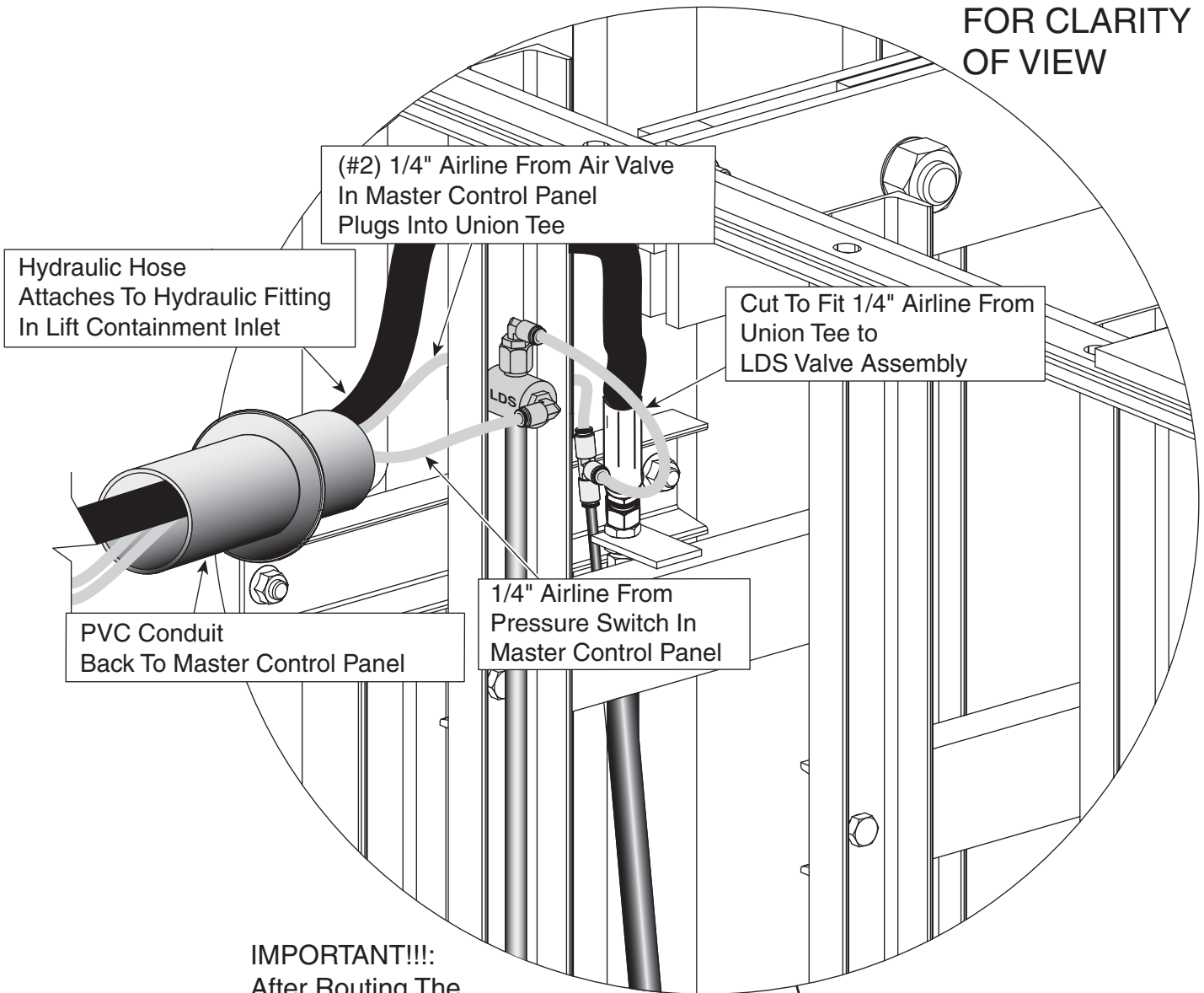


Fig. 31

Fig. 32

CONTAINMENT  
NOT SHOWN  
FOR CLARITY  
OF VIEW



**IMPORTANT!!!:**  
After Routing The  
Air Lines & Hydraulic Hose  
Do Not Cap Either End  
Of PVC Conduit. Air  
Must Vent Out  
In Order For  
LDS To Work Properly.

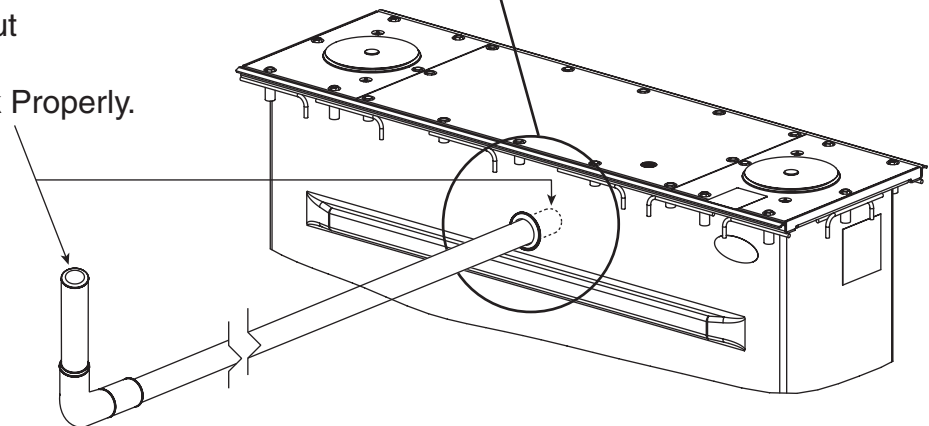
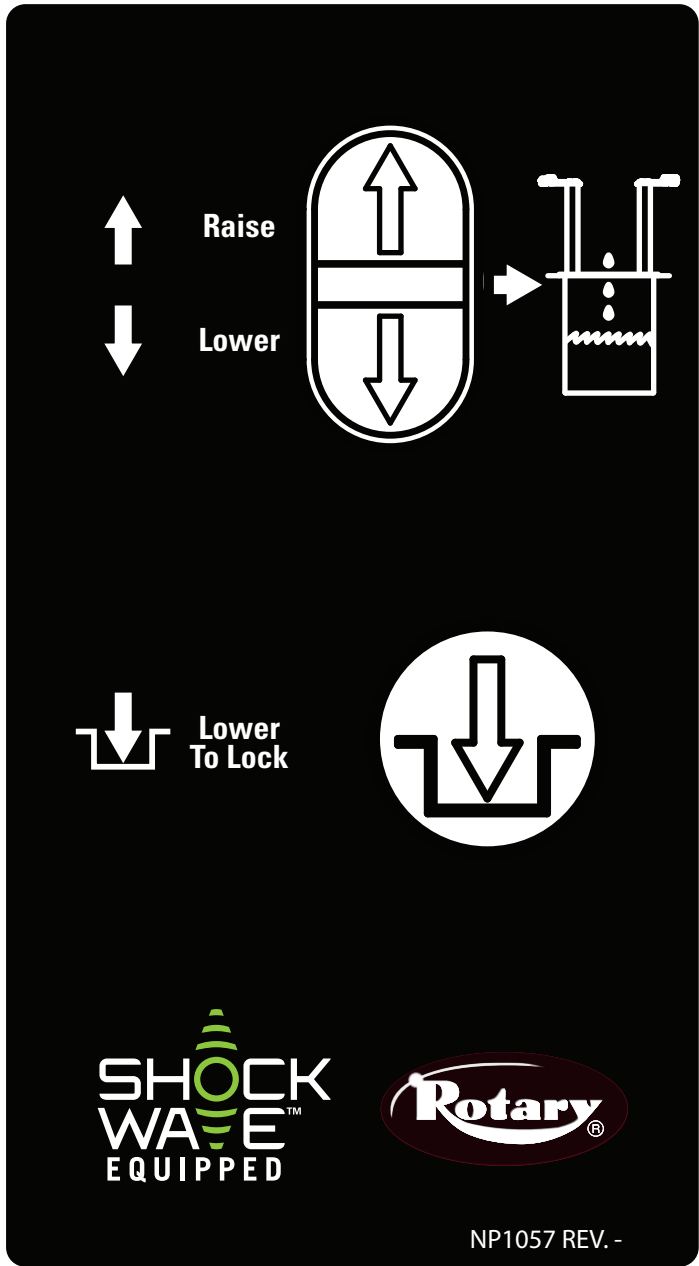




Fig. 33



## 21. Power Up:


Turn disconnect to ON position from the master control panel.


## 22. Fluid Filling:

A. System capacity is 19 quarts. Use Dexron III ATF, or Hydraulic Fluid that meets ISO 32 specifications.

B. Remove fill-breather cap.

C. Add fluid to power unit until it reaches the MIN \_\_\_\_\_ mark on the tank.

D. Press  to raise lift to full rise, Fig. 33.

E. Press  to fully lower lift, Fig. 33.

F. Bleed lift by cycling to full rise several times.

G. Top off fluid to power unit until it reaches the MIN \_\_\_\_\_ mark on the tank.

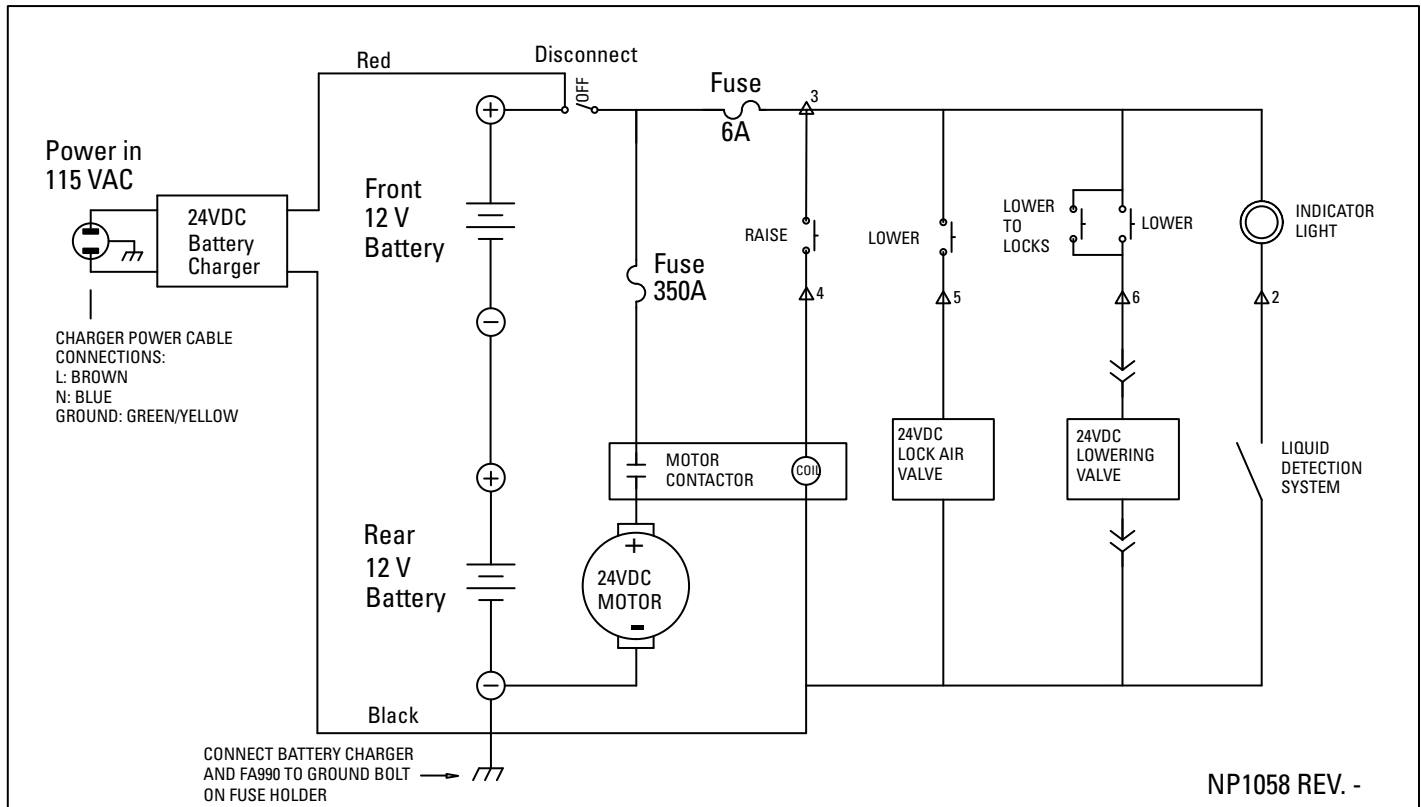
## IMPORTANT

All lifts must be fully lowered before changing or adding fluid.

## CAUTION

If fill-breather cap is lost or broken, order a replacement. **DO NOT** substitute with a solid plug.

## WIRING DIAGRAM



**G. Replace fill-breather cap.**

**CAUTION** If fill-breather cap is lost or broken, order a replacement. DO NOT substitute with a solid plug.

**23. Pressure Test:**

- A. Run lift to full rise and keep motor running for 5 seconds.
- B. Stop and check all hose connections.
- C. Tighten or reseal if required. Repeat cycling of lift if adjustment was made.

**24. Locking Latch Test:**

- A. With lift in up position, actuate latch release air valve.
- B. Make sure latch engages and releases.

**25. Cylinder/Load Pad Test:**

- A. Raise lift to full rise and lower onto locks.
- B. Look into the containment tube to check that the high pressure cylinder rod is in the load pad hole, Fig. 34.
- C. Use a non-metal object (do not scratch or scar the cylinder rods), try to move the cylinder rod. If it does not move skip step D.
- D. Move the cylinder rod around until its boss goes back into the load pad center hole.

**CYLINDER/LOAD PAD TEST**

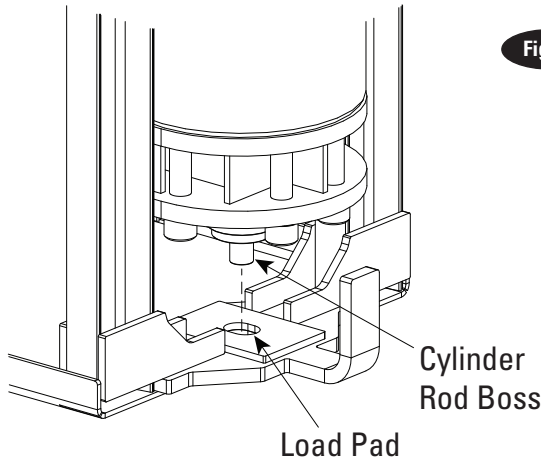


Fig. 34

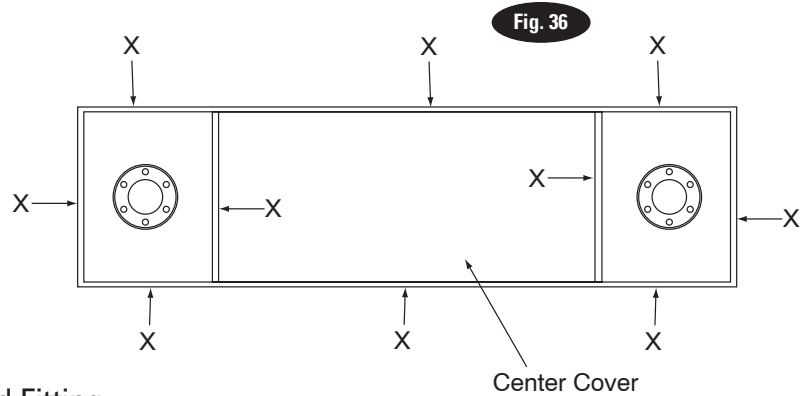


Fig. 36

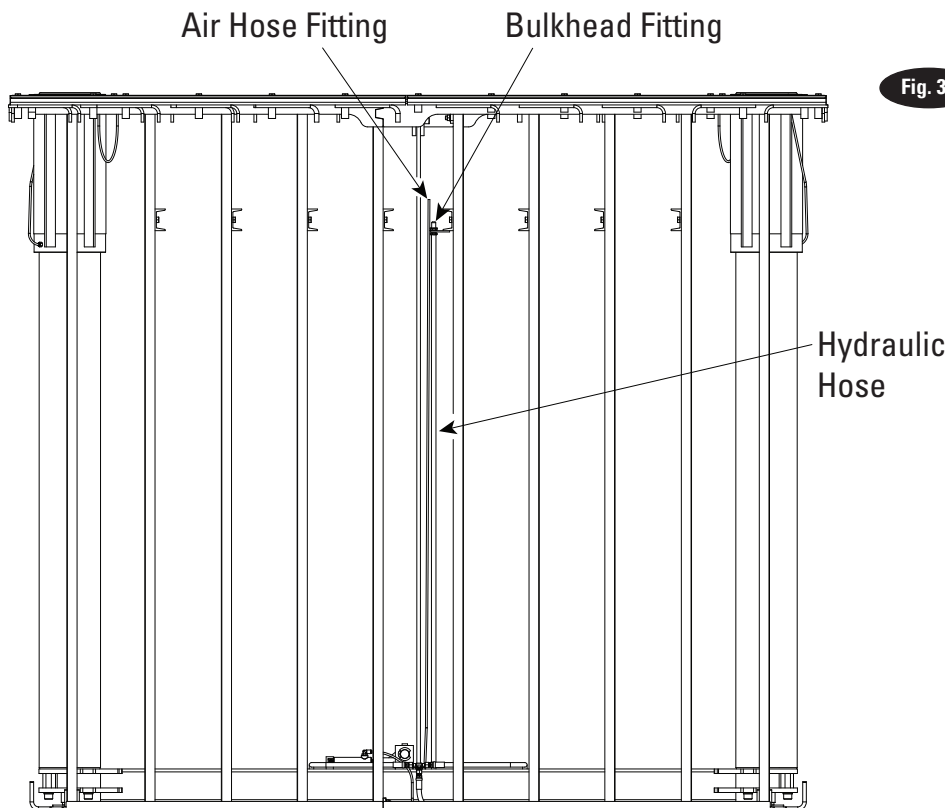


Fig. 35

## 26. Hose Tracking Test:

**A.** Have someone raise the lift while another watches the tracking of the hose between the frame bulkhead and equalizer beam, Fig. 35. If the hose does not track between the members of the equalizer beam without rubbing, adjustment is necessary.

**B.** Rotate the bulkhead fitting to adjust the position of the hose. Make sure that the bulkhead nut is tight after adjustment.

Fig. 37

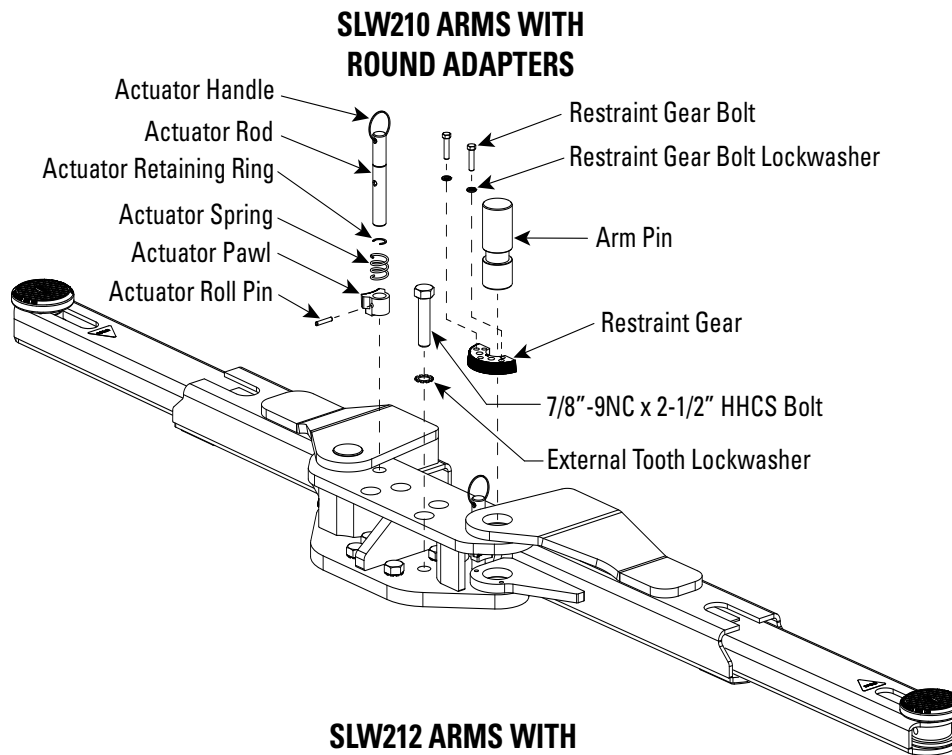
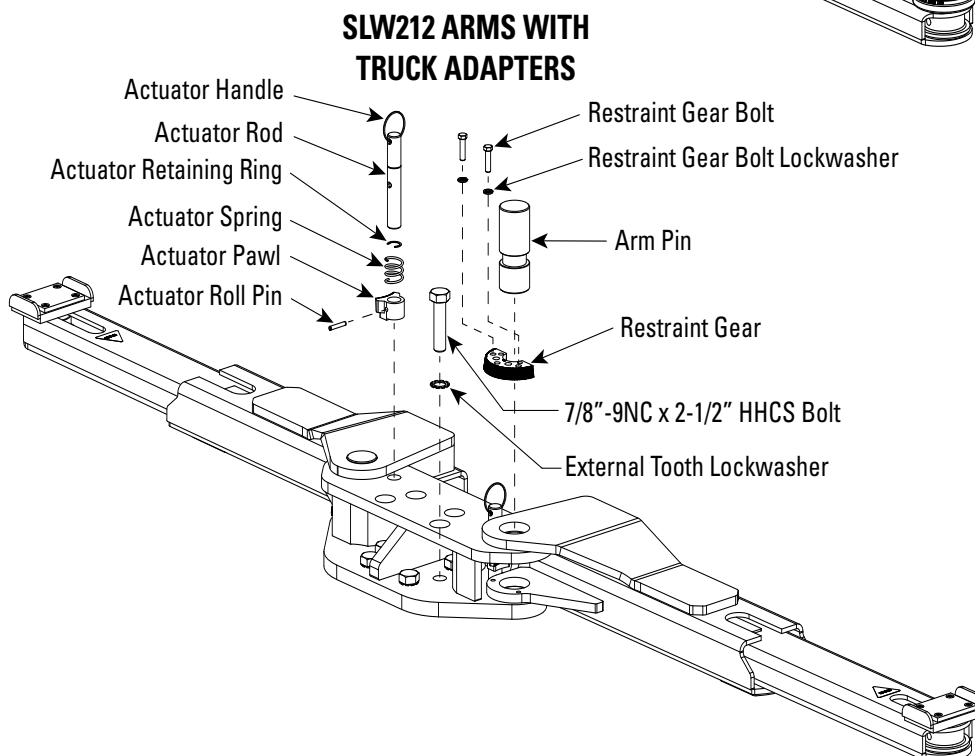


Fig. 38



### 27. Setting Cover:

- A. Insert cover seal into lip in opening, making sure all holes align.
- B. Install center cover onto seal.
- C. Install and tighten cover retaining bolts. Torque to 60 ft-lbs.

**IMPORTANT** Clean areas indicated with X, Fig. 36, and seal with a premium 25 year silicone.

### 28. Superstructure: SLW210 and SLW212 series

- A. Base Unit Lifts: Install roll-on/wheel alignment runway per instructions from superstructure manufacturer.
- B. Swing Arm Superstructures:
  - 1. Install yokes to plungers with 7/8"-9NC x 3-1/2" HHCS and 7/8" external tooth lockwasher. Torque to 150 ft-lbs., Fig. 37 and Fig. 38.
  - 2. Grease arm pins and arm holes with Lithium grease.
  - 3. Install (4) arm assemblies as shown, Fig. 37 and Fig. 38.

### 29. Final Touches:

- A. Lag wheel spotting dish to floor using two 3/8" anchors provided. Verify model number of lift being installed and refer to Fig. 1 for respective dimensions.
- B. Raise lift and clean sand and dirt from plunger and lift area.
- C. Double check to make sure the guide barrel and center cover are sealed per Step 27.

- 30. **Upon completion** of the assembly of the lift, the lift is to be operated to assure proper function. Observe for locks operating in all locking positions, each side lifts equally, hydraulics do not leak, all electrical controls function as labeled, all pneumatics are functional and leak free, ramps rotate freely (if applicable), and proper clearances with all items in bay have been maintained.

Operate the lift with a typical vehicle and observe to assure the same items for proper functioning.

## Notes



**Installer:** Please return this booklet to literature package, and give to lift owner/operator.

Thank You

**Trained Operators and Regular Maintenance Ensures Satisfactory Performance of Your Rotary Lift.**

**Contact Your Nearest Authorized Rotary Parts Distributor for Genuine Rotary Replacement Parts. See Literature Package for Parts Breakdown.**



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