

Step 1: Determining Lift Location:

A.) Use architects plan when available to confirm location of lift. Review lift specifications, Figs. 1 & 2. Runways weigh approximately 2800 lbs. each. The control cabinet weighs approximately 200 lbs. (dry weight).

AWARNING DO NOT install on asphalt or other similar unstable surfaces.

IMPORTANT A forklift will be needed for the installation of

this lift. It should be rated to lift a minimum of 3500 lbs. If you do not own a forklift or it is not rated to handle the specified weight you will need to rent one. This should be considered when estimating the cost of the lift installation.

This lift can also be installed in a recess. For a recess installation an EFR (Equipment Foundation Requirement) can be obtained by contacting Rotary Lift.

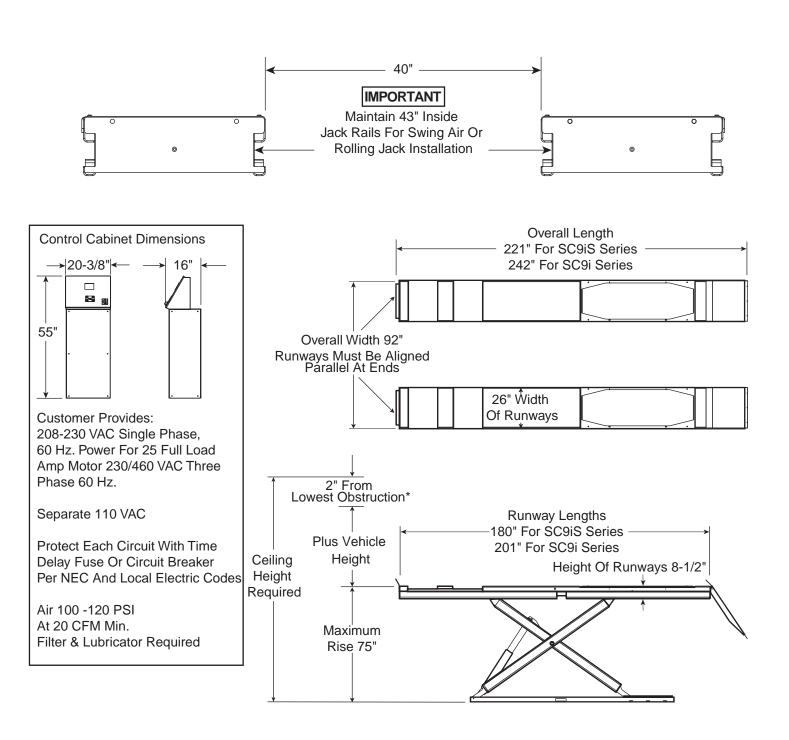
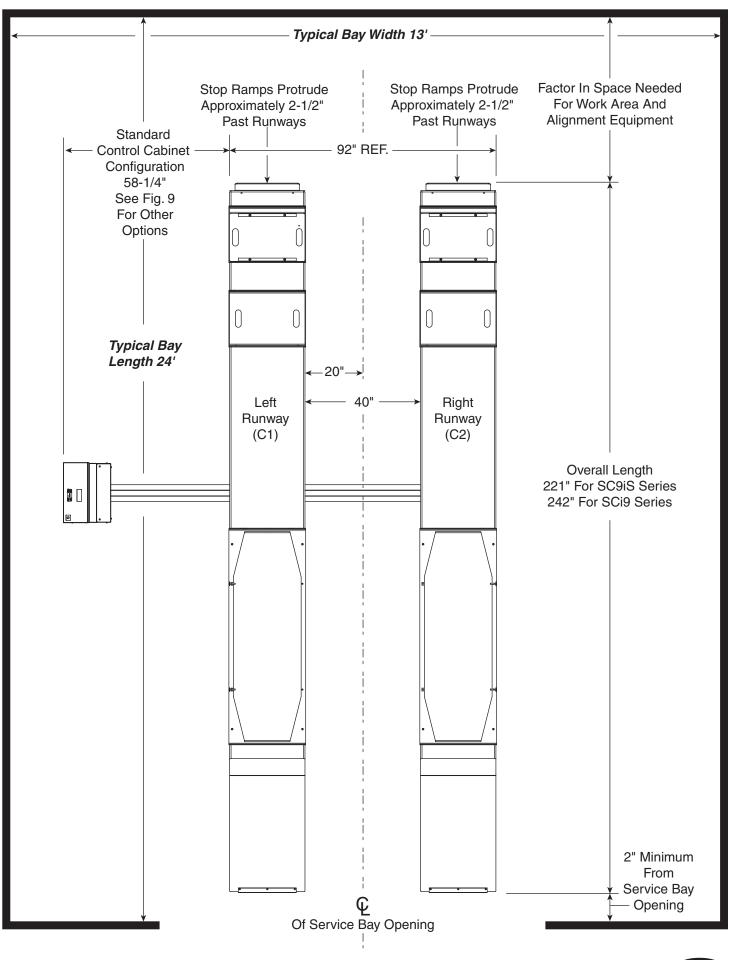


Fig. 1

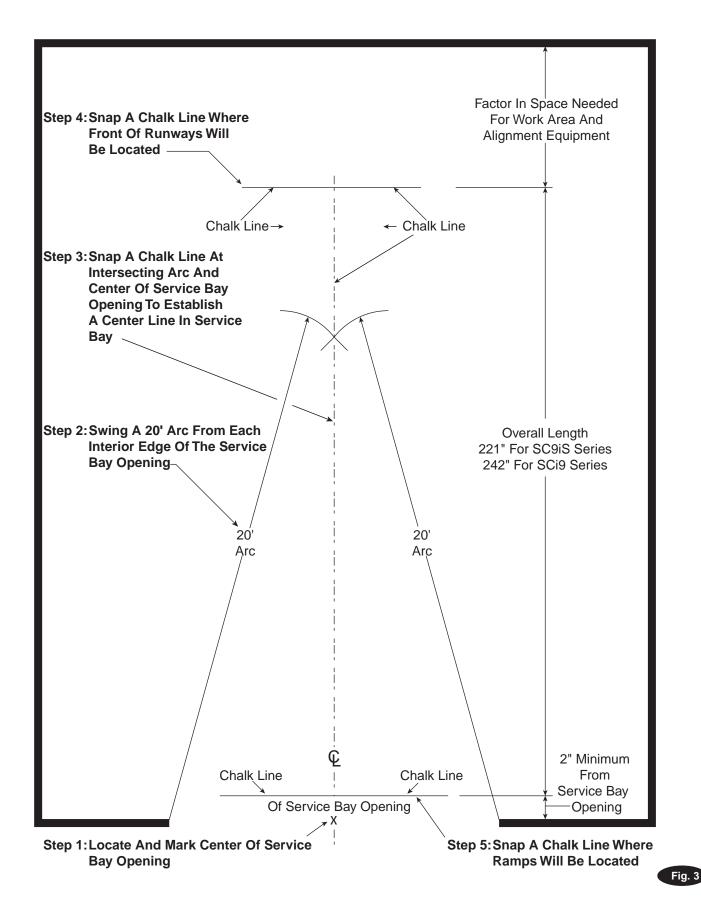


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Fig. 2

Step 2: Laying Out Runway Locations In Service Bay:

A.) Lay out runway locations in service bay according to the steps in Figs. 3 & 4.



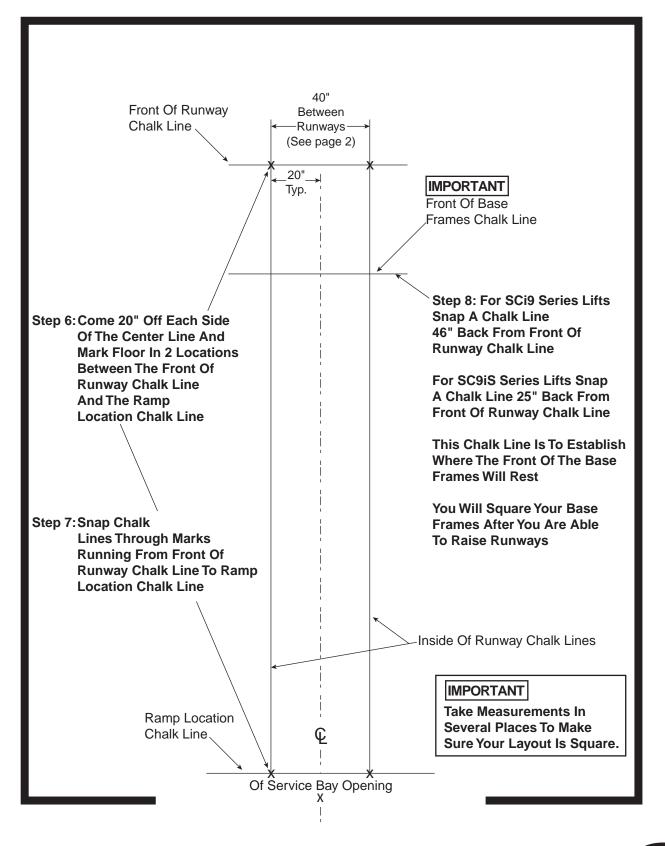


Fig. 4

Step 3: Placing Runways In Service Bay:

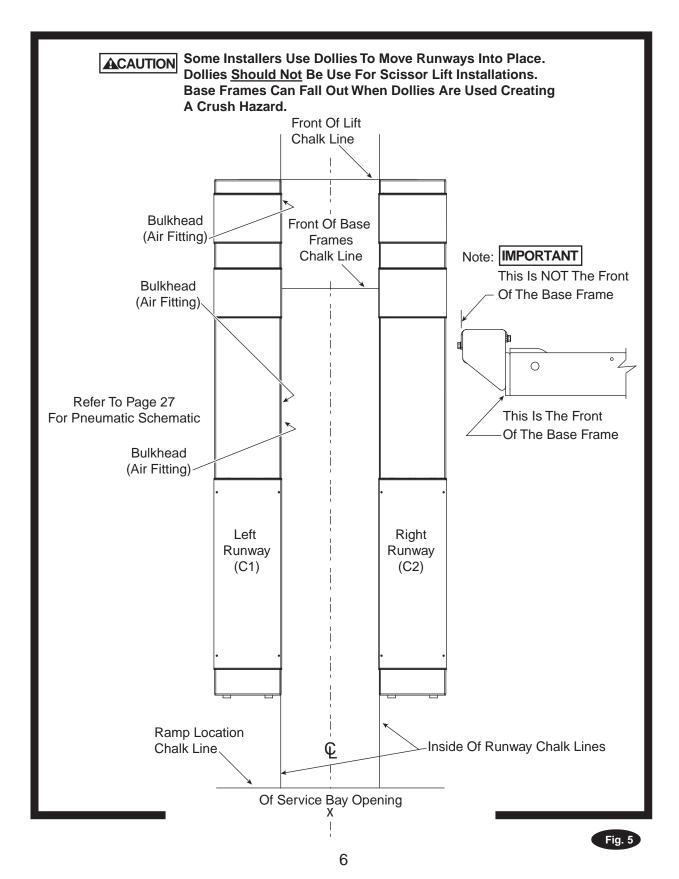
A.) Determine left and right runway, Fig. 5. Bulkhead fittings denote left runway.

B.) Remove runways from skids. This should be done outside so you will have ample room to work. Push runways into service bay and align them with the chalk lines, Fig. 5.

ACAUTION DO NOT drop runways even from a short

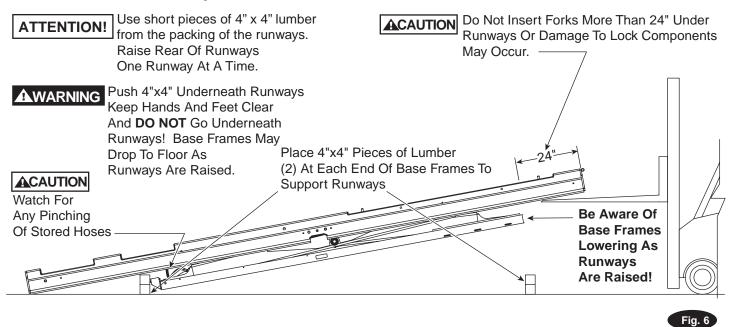
distance! Dropping runways may damage the components of the runway. They should be placed on the floor and pushed or pulled into position.

C.) Check dimensions again especially between runways.



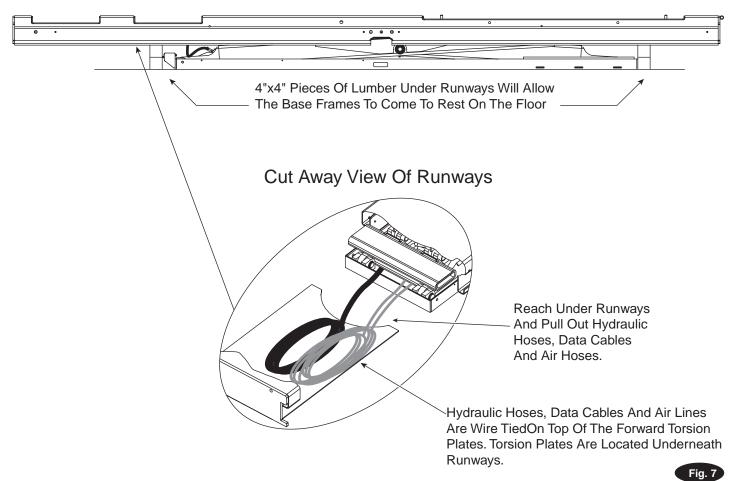
Step 4: Setting Runways On 4"x4" pieces of lumber:

A.) Elevate rear of runways and place 4"x4" pieces of lumber at ends of base frames, Fig. 6.



Step 5: Removing Hydraulic Hoses From Underneath Runways:

A.) Reach under runways and remove hydraulic hoses, data cables and air lines Fig. 7.



Step 6: Routing Hydraulic Hoses Around Base Frames:

A.) **IMPORTANT** Prior to routing hydraulic hoses tag end of each hose to distinguish which runway they are being routed from. This will prevent hydraulic hoses from being installed incorrectly at the manifold in the control cabinet.

B.) Route hydraulic hoses around base frames, through hose guards and out slots in base frames, Fig. 8.

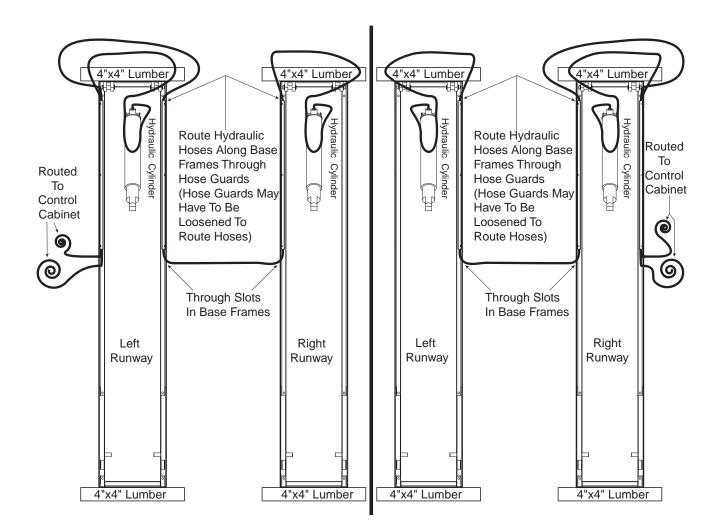
C.) Connect the Intermediate Hose to the shorter of the two hoses, if necessary, to reach the control cabinet.

Hydraulic Hose Routing Detail

IMPORTANT

T For Right Side Control Cabinet Installations.

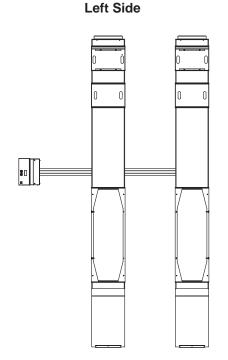
The Outside Hose Guard On The Left Runway Will Have To Be Moved To the Outside Of The Right Runway.



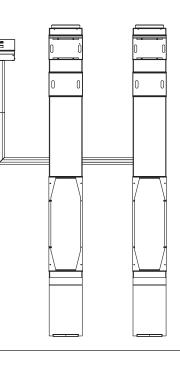
Step 7: Locating Your Control Cabinet:

A.) There are (4) floor covers provided with the lift to allow you (6) options for locating your control cabinet, Fig. 9. Each cover is 42" in length, (1) floor cover will be used between runways. Choose an option and place your control cabinet. Do Not Anchor the control cabinet until installation is complete. **Tip:** Use a metal cutting blade in a reciprocating saw to make 45° cuts.

Floor Covers Are 42" In Length (4) Provided (1) Will Be Used Between Runways 45° Cuts In Floor Covers Allows You To Set Control Cabinet To Front Or Rear Of Lift

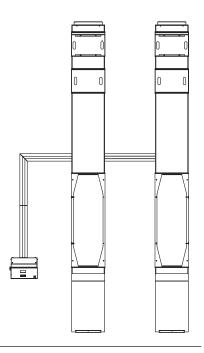


Standard Installation For Control Cabinet



Control Cabinet

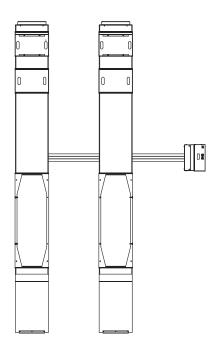
Installed At Left Front Of Lift



Control Cabinet

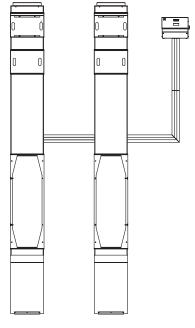
Installed At Left Rear Of Lift

Standard Installation For Control Cabinet Right Side



Control Cabinet Installed At Right Front Of Lift

Control Cabinet Installed At Right Rear Of Lift



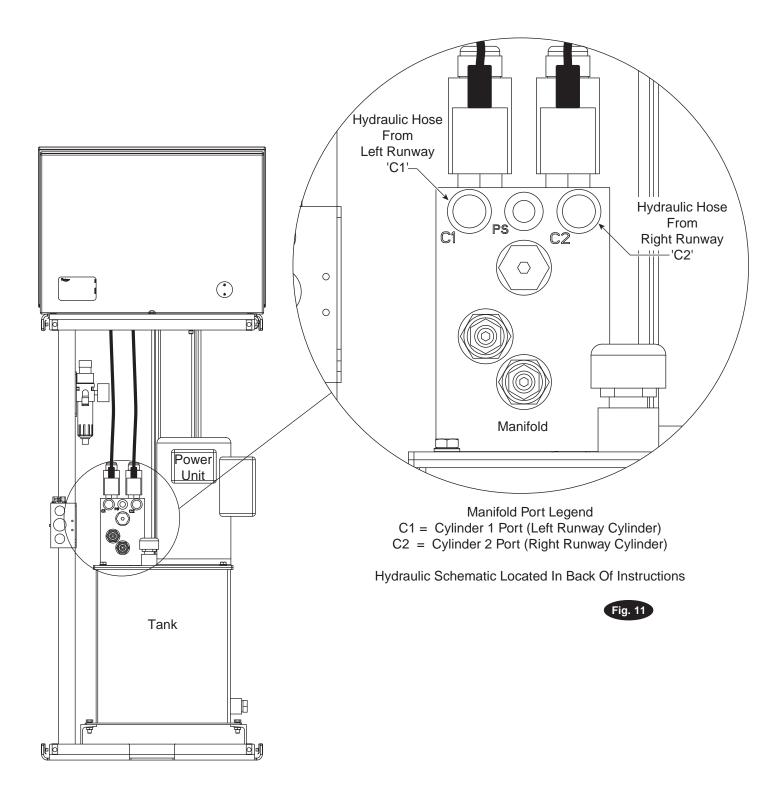


Step 8: Installing Hydraulic Hoses And Electrical Service To The Control Cabinet:

A.) Remove all panels from the control cabinet, Fig. 10. Remove screws from upper enclosure Fig. 10. B.) Fill tank with hydraulic fluid that meets ISO 32 specifications or Dexron III ATF. The tank capacity is 6 gallons.

C.) Install Hydraulic hoses into manifold located inside control cabinet, using the pre-installed adapters provided to connect hoses to manifold.





Step 9: Installing Electrical & Pneumatic Service To Control Cabinet:

A.) A certified electrician should install electrical service to control cabinet, Fig. 12 & 13

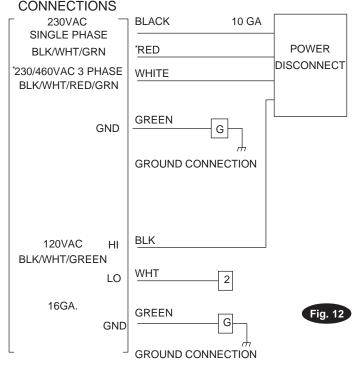
NOTE: A full schematic is provided on the back page. Use separate circuit for each power supply. 10 GA. wire must be used for incoming power source for runs up to 75' to the motor. Consult the NEC for longer runs.

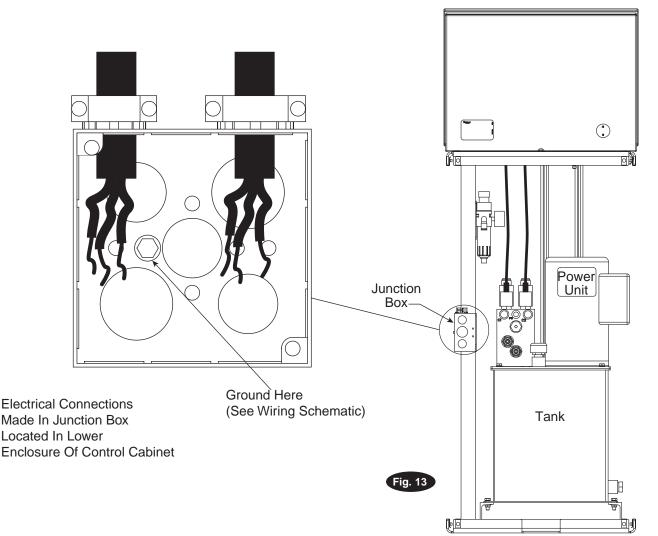
IMPORTANT 120 VAC must be separate from 230 VAC It cannot be drawn from on leg of the 230 VAC. Protect each circuit with time delay fuse or circuit breaker. All wiring must comply with NEC and all local electrical codes.

B.) If an electrical drop is used for the power source, drop conduit on either the left or right side of the control cabinet. Do not obstruct the front or rear panels.

C.) Install pneumatic service to control cabinet, see Fig. 30b for pneumatic schematic. If a pneumatic drop is used for the air supply, drop 1/2" minimum conduit on either the left or right side of the control cabinet adjacent to the electrical drop. Do not obstruct the front or rear panels.

CUSTOMER CONNECTIONS





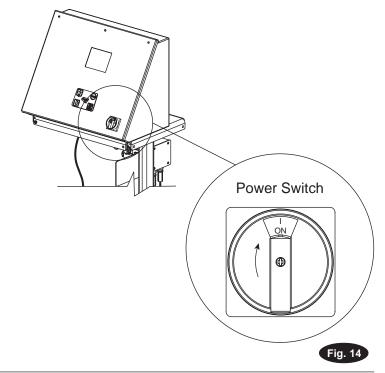
Step 10: Powering Up The Control Cabinet:

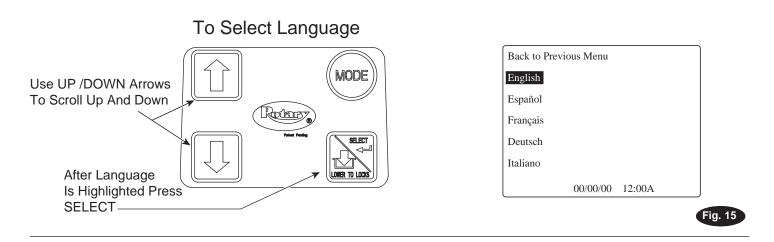
A.) Turn the power switch to **ON**, Fig. 14.

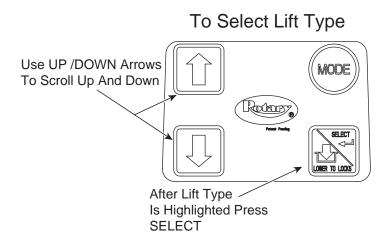
B.) Go through the initial set up of the lift, Fig. 15, Fig. 15a and 15b.

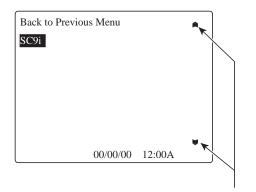
C.) Review Fig. 16 to become familiar with the touch pad and LCD screen. An overview of the control cabinet is also available in the owner's manual.

Note: If text is not visible on the screen the contrast may have to be adjusted for the LCD screen. Refer to the contrast adjustment procedure in the owner's manual, page 6.





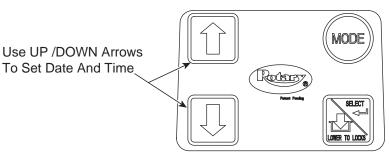




When Arrows Appear To The Right Of Your Screen You Have Multiple Screens For This Option

Fig. 15a

To Set Date And Time



- Step 1: Use The UP/DOWN Arrows To Change Month. Step 4: Use The UP/DOWN Arrows To Change The Hour. Press SELECT And You Will Set The Month.
- Step 2: Use The UP/DOWN Arrows To Change Date. Press SELECT And You Will Set The Date.
- Step 3: Use The UP/DOWN Arrows To Change Year. Press SELECT And You Will Set The Year.

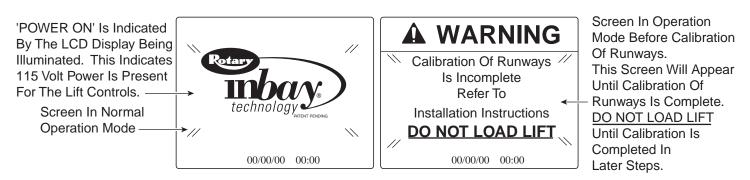
Set Date and Time		
00/00/00	00:00	

- Press SELECT And You Will Set The Hour.
- Step 5: Use The UP/DOWN Arrows To Change The Minute. Press SELECT And You Will Set The Minute.

Step 6: Press MODE Button.

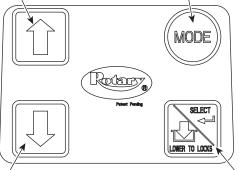


Overview Of Control Cabinet Functionality



"UP': Press And Hold To Raise Lift. Lift Will Stop When The Push Button Is Released Or The Maximum Height Is Reached Or A Pre-Set Height Limit Is Reached.

'MODE': Depressing This Buttton Toggles The Controls From 'OPERATION MODE' To 'INFORMATION MODE' Use The 'UP' And 'DOWN' Buttons To Scroll And Highlight Options In The 'INFORMATION MODE'. Depress The 'SELECT' Button To Select The Highlighted Options In The 'INFORMATION MODE'.



ATTENTION!

When Raising The Lift Off The Locks, Raise It Till You Hear The Locks Click. Then You Can Press The Down Button To Lower The Lift To Floor

'Down': Press And Hold To Lower Lift. The Lift Will Begin To Lower And Will Continue To Lower Until The Push-Button Is Released Or The Fully Collapsed Position Is Reached.

'Lower To Locks': Press And Hold To Allow The Lift To Rest On The Mechanical Locks. The Lift Will Stop Lowering When The Push-Button Is Released Or The Lift Is Resting On The Mechanical Locks.



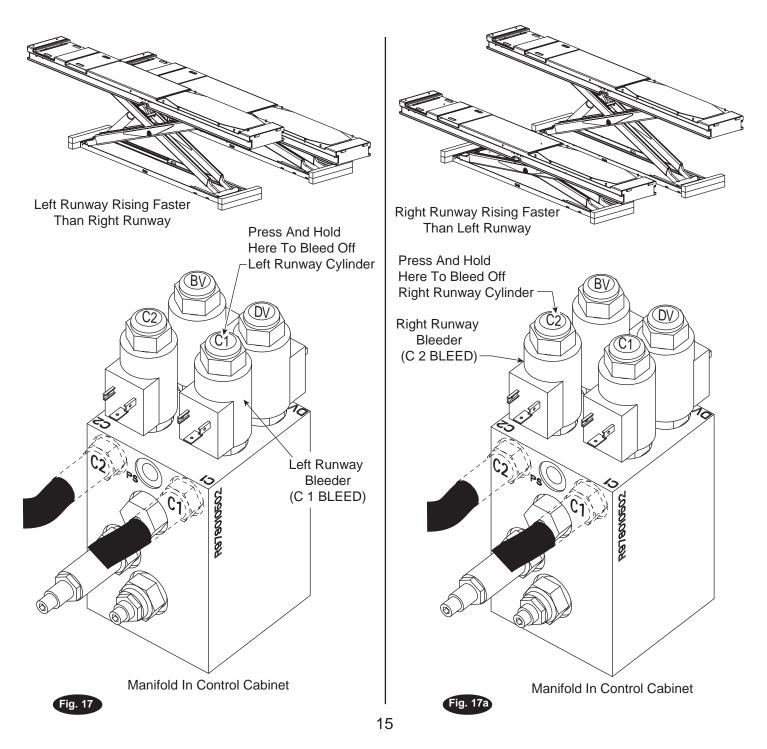
Note: The Lift Must Be Raised Off Of The Locks Before The Down Button Can Be Used To Lower The Lift To The Floor.

Step 11: Raising Runways:

IMPORTANT During the initial install of these runways it's important to know that one runway may rise faster than the other. This is because the runways have not yet been calibrated. You can control the rise of each runway by bleeding off flow to the cylinders in the runways. This is done manually by pushing the bleeder buttons located on top of the manifold in the control cabinet Figs 17 & 17a.

Example 1: If the left runway is rising faster than the right runway press and hold the bleeder button marked (C 1 Bleed) Fig. 17. This will allow the right runway to catch up. When both runways appear to be rising evenly release the bleeder button. The bleeder button can be pressed as needed to keep runways rising evenly.

Example 2: If the right runway is rising faster than the left runway press and hold the bleeder button marked (C 2 Bleed) Fig. 17a. This will allow the left runway to catch up. When both runways appear to be rising evenly release the bleeder button. The bleeder button can be pressed as needed to keep runways rising evenly.



A.) Press the

and raise runways until one full

latch window is exposed underneath rear of runways, Fig. 18.

Note: If runways will not raise with the touchpad, see additional information on manually raising and lowering the runways, refer to operations manual, page 7.

ATTENTION! Only expose (1) full latch window. The

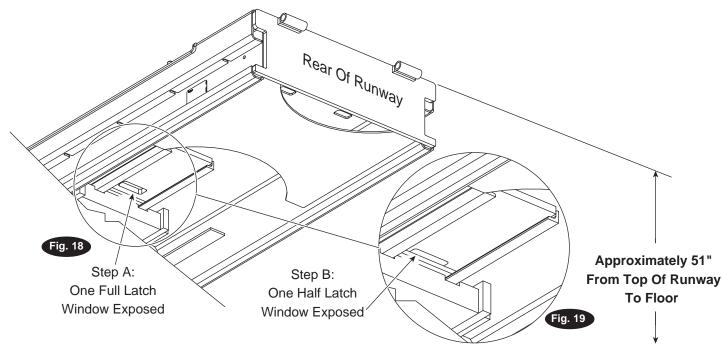
runways will only lower to the closest lock. There is no air to release the locking latches.

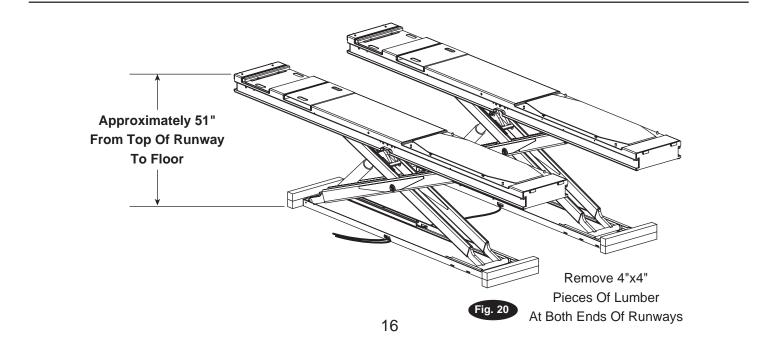


to lower the runways onto locks.

There should only be 1/2 of a latch window exposed, Fig. 19 after the runways are lowered to locks. The elevations of the runways should be approximately 51" from top of runway to the floor, Fig. 20.

C.) Remove 4"x4" pieces of lumber from under runways, Fig. 20.





Step 12: Setting Runways And Base Frames:

Runways are Set when:

- 1: The fronts of the base frames are squared with the base frame chalk line.
- 2: The distance between the jack rails of each runway is 43".
- 3: The base frames are level left to right.
- 4: The runways are level front to back.

Note: Grout may be used to level runways at the installer's discretion.

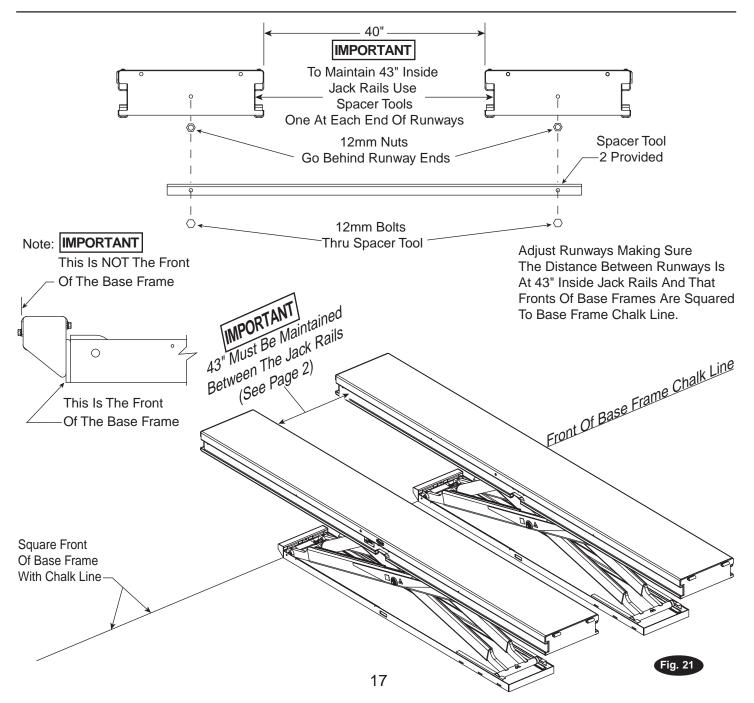
IMPORTANT Leveling and shimming must be completed

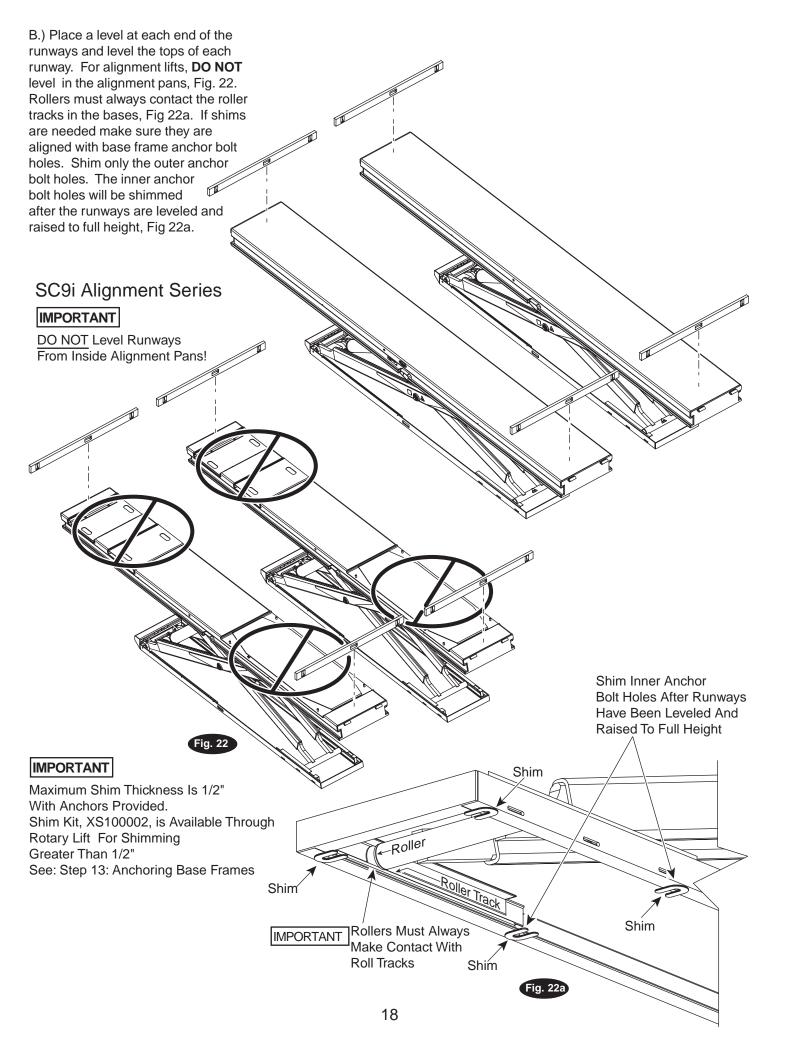
before any anchor bolt holes are drilled and anchors set. Shims should be aligned with anchor bolt holes in base frames to allow drilling from the top sides of the base frames when leveling is complete. Review procedures A thru C carefully before starting.

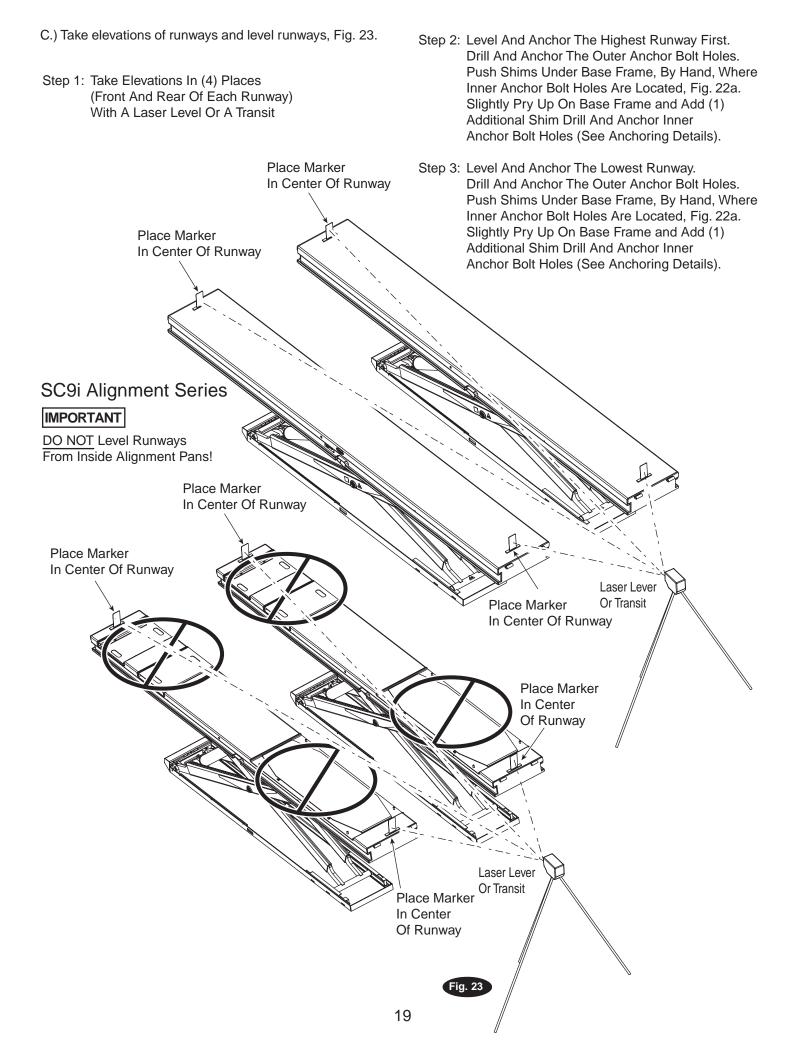
A.) Check spacing between runways and square base frames with base frame chalk line. Utilize spacer tools at front and rear of runways to maintain spacing, Fig. 21.

CAUTION DO NOT raise or lower runways with spacer tools attached to runways!

Example: If you have to set the first base frame 1/2" from the base frame chalk line then the other base frame must be set 1/2" from the base frame chalk line. Keep base frames square!







Step 13: Anchoring Base Frames:

A.) Drill holes and place anchors, Fig. 24.



IMPORTANT You must maintain a 3-1/2" anchor

embedment. If excessive shimming is required you must use a longer anchor to maintain a 3-1/2" anchor embedment.

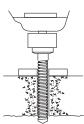


Anchor bolt nuts must be tightened to

45 ft-lbs. If anchors start to pull out of holes while trying to maintain this torque value new concrete pads must be poured, Fig. 25 and 25a.

Remove spacer tools after anchors are set.

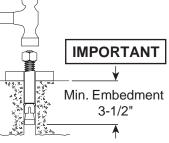
IMPORTANT : Using the horse shoe shims provided, shim each base frame until each frame is plumb. If one base frame has to be elevated to match the plane of the other frame, or more than 1/2" of shimming is required, then base frame shim plates should be used (Reference XS100002 Shim Kit).



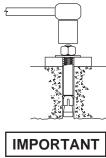
Drill1/2" holes with a carbide tipped masonry drill bit per ANSI standard B94.12.1977.



blow out bulb or air hose.



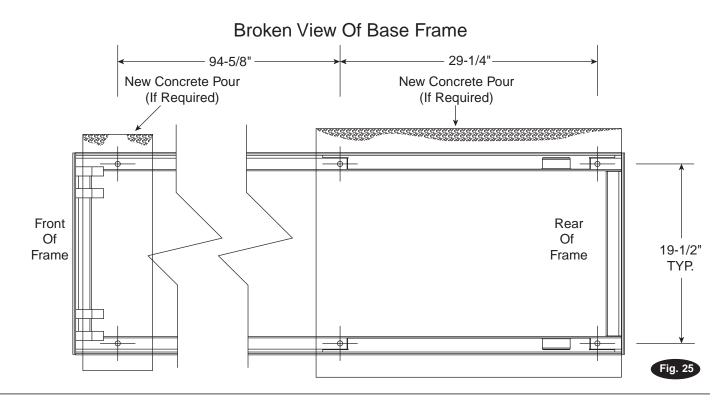
Run nut down, just below impact section of stud. Drive anchor into hole.

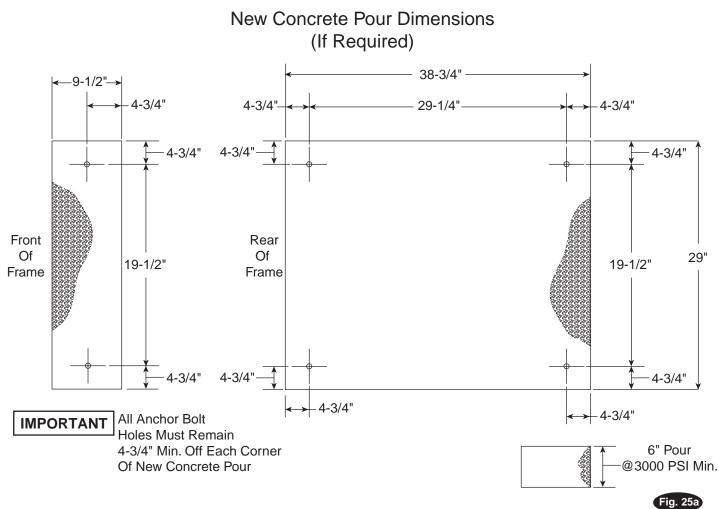


Torque nut with torque wrench to 45 ft-lbs.

Note: If Base Frames Are Shimmed More Than 1" In The Rear Then An Extended Ramp Kit, XS100003, May Be Needed For Low Ground Clearance Vehicles. Contact Rotary Lift For Additional Information.







Step 14: Routing Position Sensor Cables To Control Cabinet:

IMPORTANT The cables cannot be cut to length. Keep The Two Cables The Same Length.

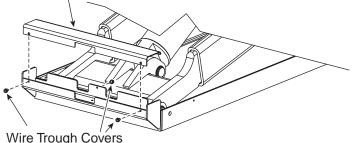
Note: The position sensor cables are identical. Prior to installing the cables, identify each end with a distinguishing mark, such as colored electrical tape. This will help to make sure the left and right runway position sensors are connected correctly in the control cabinet. Example: If the wires are switched in the control cabinet the left runway will be very fast while the right runway will hardly move at all. The software "thinks" the left runway is low (since the sensors have been switched) and will bleed off fluid to the right runway. This causes the right runway to slow down relative to the left runway. Very quickly, the software will kick out and give a "Runways Out Of Level" error.

A.) Remove wire troughs from base frames, Fig. 26.

Note: Position sensor cables and 1/4" air line will come up from the bottom of control cabinet out through a cut out in the power unit support, Fig. 27.

B.) Route position sensor cables back to control cabinet following hydraulic hoses, Fig. 27a for control cabinets mounted to the right side and Fig. 27b for control cabinets mounted to the left side.

Remove Wire Trough Covers From Base Frames



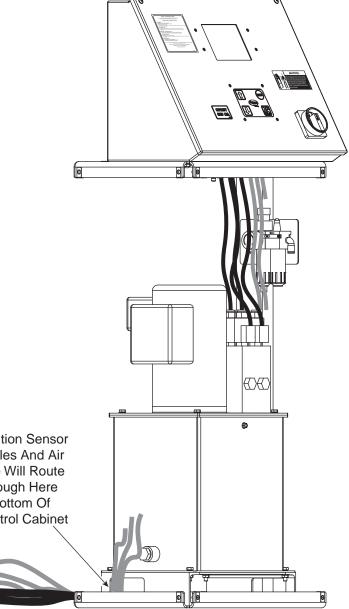
Are Attached With (3) M6 x 10mm Hex Flange Cap Screws

Fia. 26

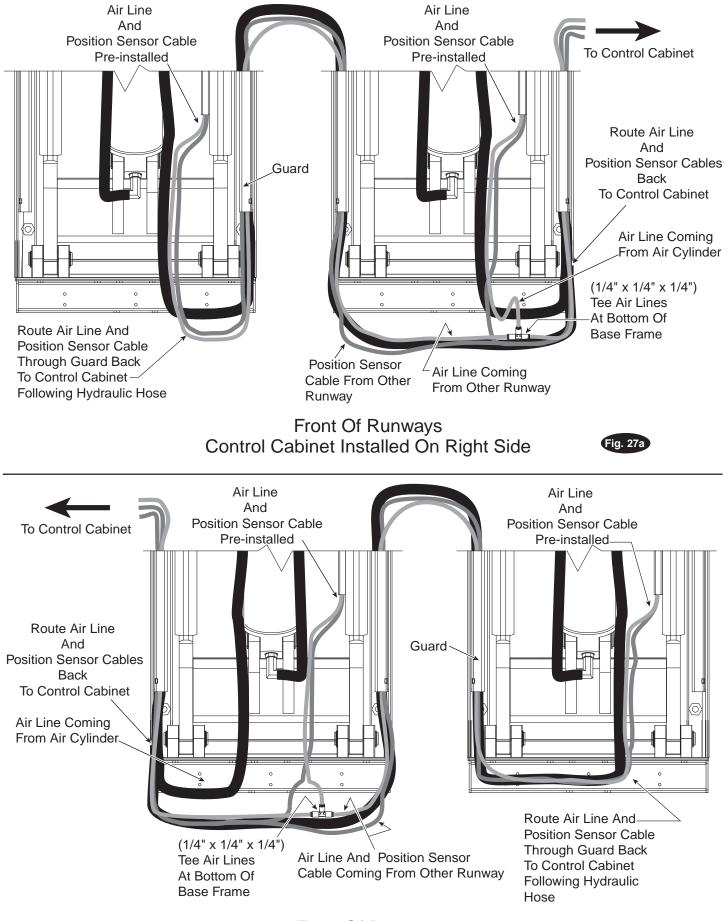
Position Sensor Cables And Air Line Will Route Through Here In Bottom Of **Control Cabinet**

Step 15: Routing Air Line Back To Control Cabinet:

A.) Route air line from tee back to control cabinet. Air line should follows Hydraulic Hoses and position sensor cables back to control cabinet, Fig. 27a for control cabinets mounted to the right side and Fig. 27b for control cabinets mounted to the left side.







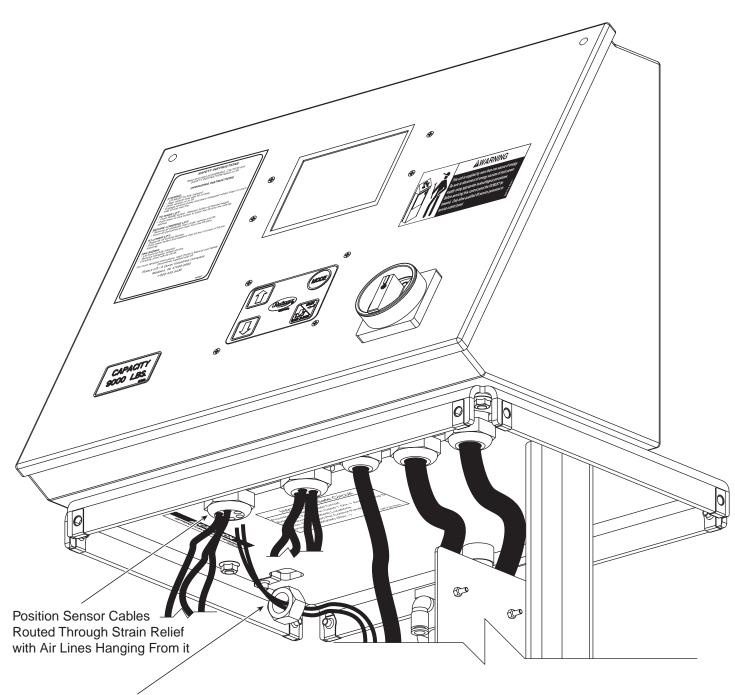
Front Of Runways Control Cabinet Installed On Left Side



Step 16: Installing Positon Sensor Cables Into Control Cabinet:

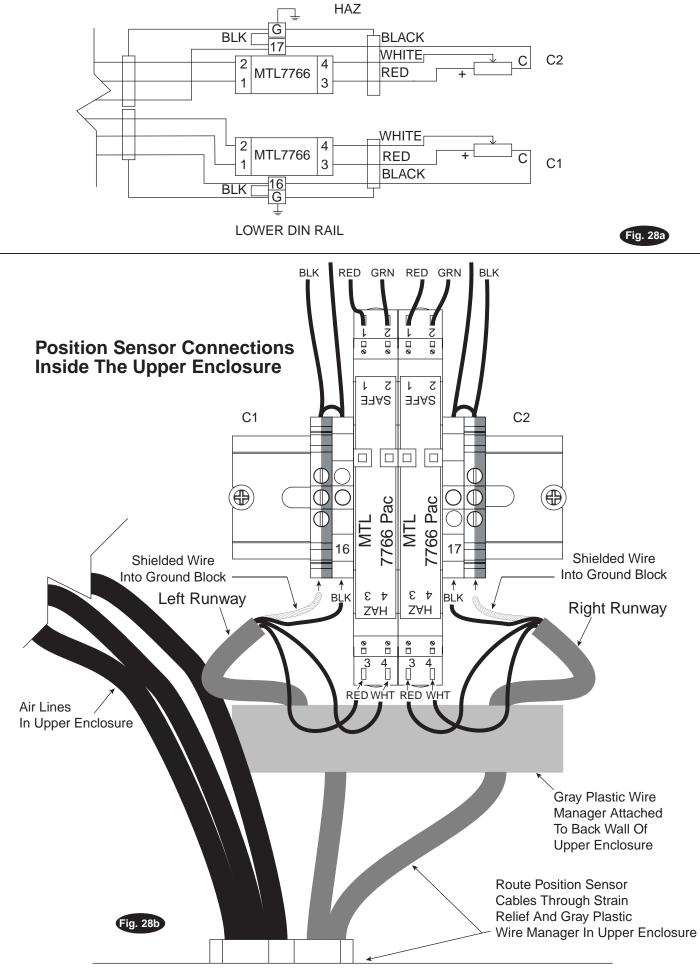
A.) Route position sensor cables into control cabinet, Fig 28.

B.) Wire position sensor cables per Figs. 28a and 28b.

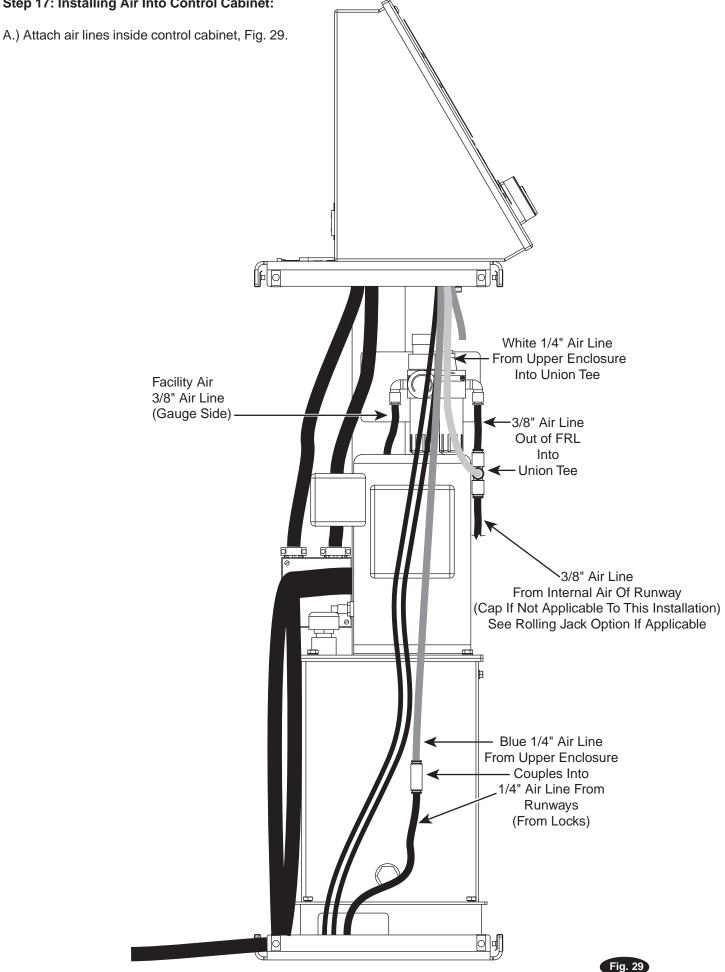


IMPORTANT Position Sensor Cables MUST Be Routed Through Nut Attached To Bottom Support Of Upper Enclosure Before Routing Them Through The Strain Relief In The Upper Enclosure. These Cables Are "Intrinsically Safe" And MUST Be Kept A Minimum Of 2" Away From Non-Intrinsically Safe Electrical Components.





Step 17: Installing Air Into Control Cabinet:

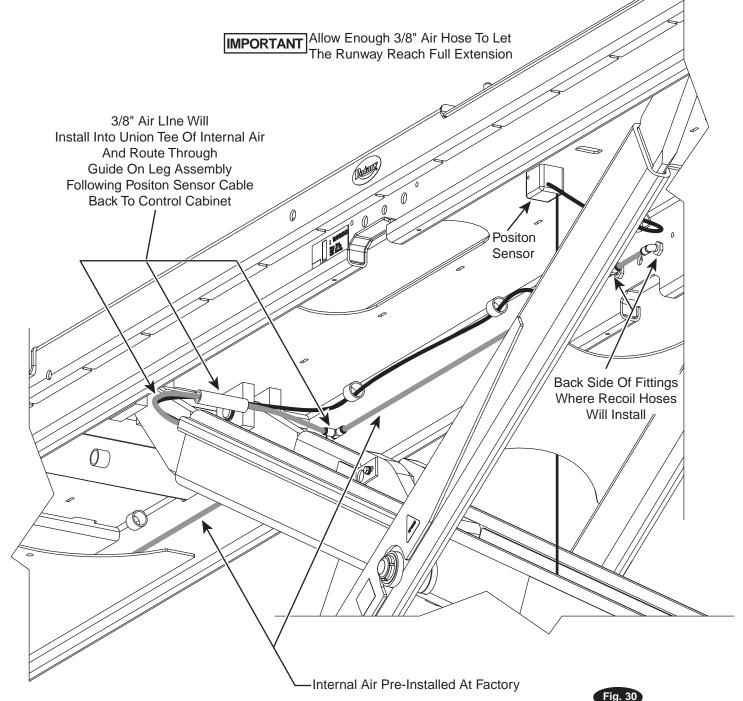


Attention: If Rolling /Swing Air Jacks Are Not Applicable To This Installation Continue on to Step 19:

Step 18: Rolling/Swing Air Jack Installation (Optional):

A.) Route 3/8" air line from union tee of factory installed internal air to union tee inside control cabinet, see Figs. 30 and 31.

Internal Air Option For Rolling Jacks



B.) Install rubber stops (2) each runway see call out of Fig. 32.

Note: operating air pressure for rolling jacks/swing air jacks is 100-120 psi at 20 CFM.

C.) Review rolling jack installation instructions before installing recoil hoses to runways.

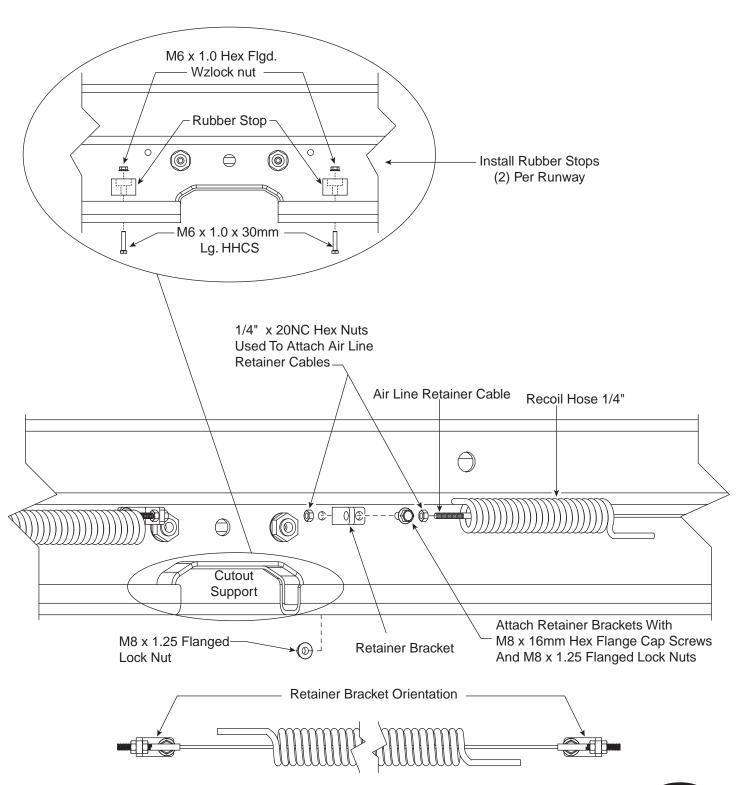


Fig. 31

Note: This lift is equipped with an internal airline that provides air to both rolling jacks/swing air jacks and an extra access point for air driven tools (Quick Disconnect Coupler), Fig. 31a. All internal air lines are factory assembled.

Installing air line retainer cables:

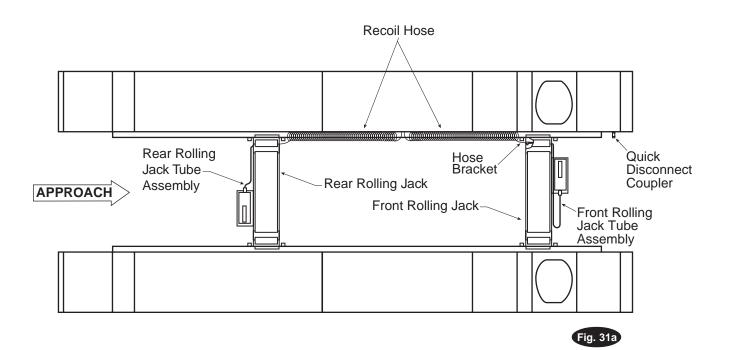
C.) Install recoil hoses and air line retainer cables to runway with bulk heads (air fittings), Fig. 31 and 31a. Also see SC9i Pneumatic Circuit, Fig. 31b.

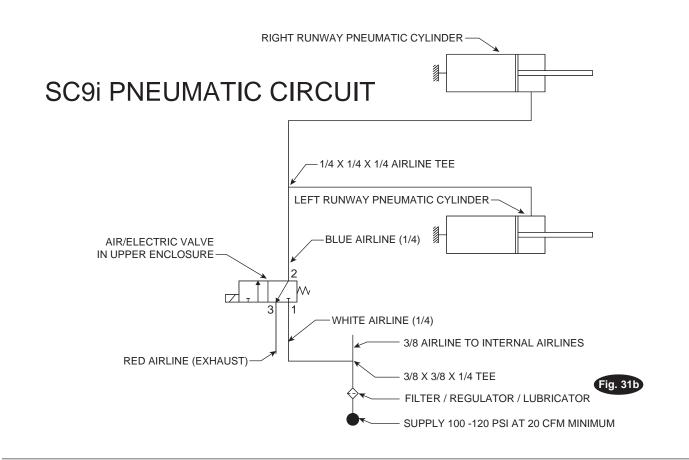
Rear Recoil Hose Installation:

D.) Connect one end of recoil hose to bulkhead T-fitting at midpoint of runway. Connect other end of recoil hose to coupling welded on rolling jack/swing air jack, see installation instructions for particular jack installation.

Front Recoil Hose Installation:

E.) Connect one end of front recoil hose to bulkhead fitting in center of runway. Connect other end of recoil hose to coupling welded on rolling jack/swing air jack, see installation instructions for particular jack installation.



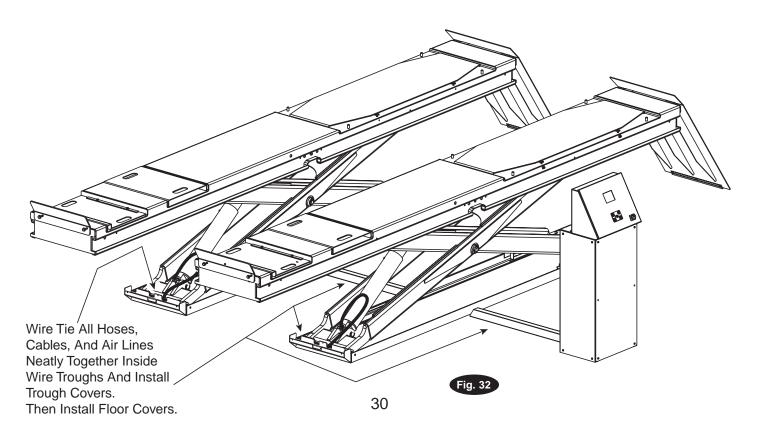


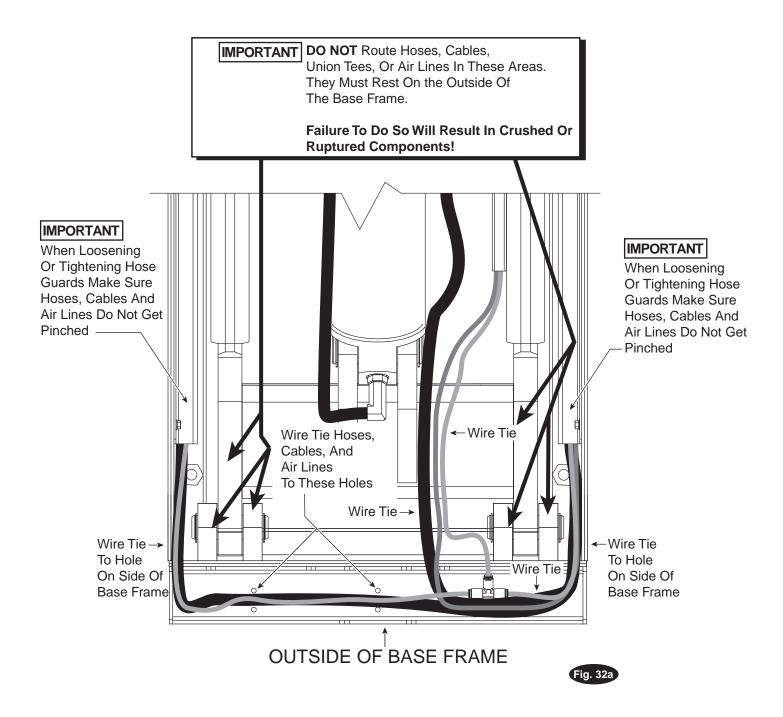
Step 19: Inspecting And Detailing Hoses And Cables:

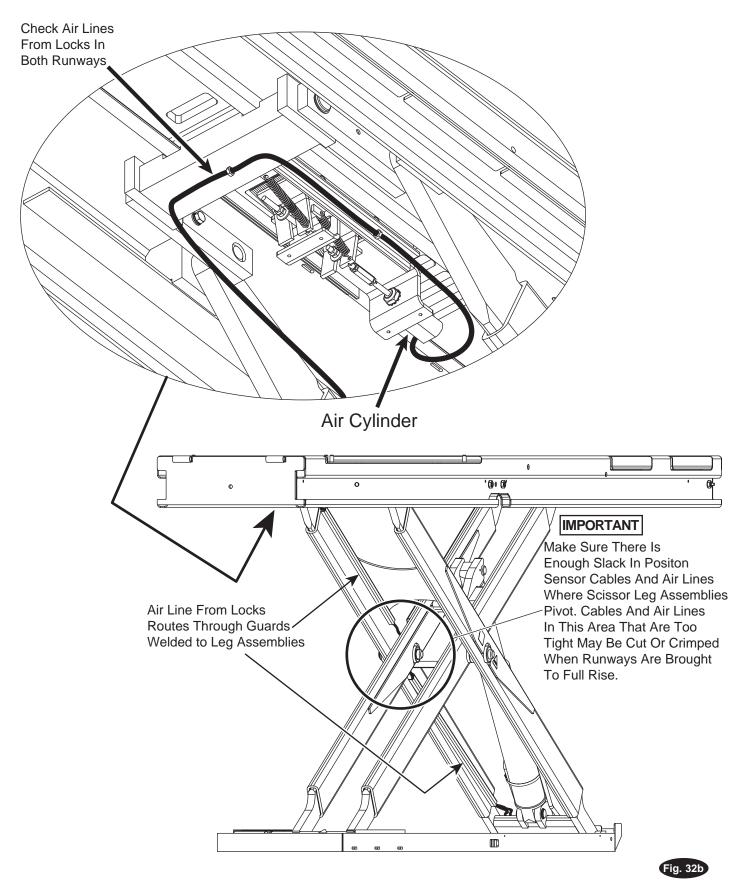
IMPORTANT If for any reason factory installed position sensor cables or air lines have to be replaced it is imperative that they be routed the same way they were installed from the factory. Improper routing may cause these components to be cut or crushed. Before replacing any of these components become familiar with their routings.

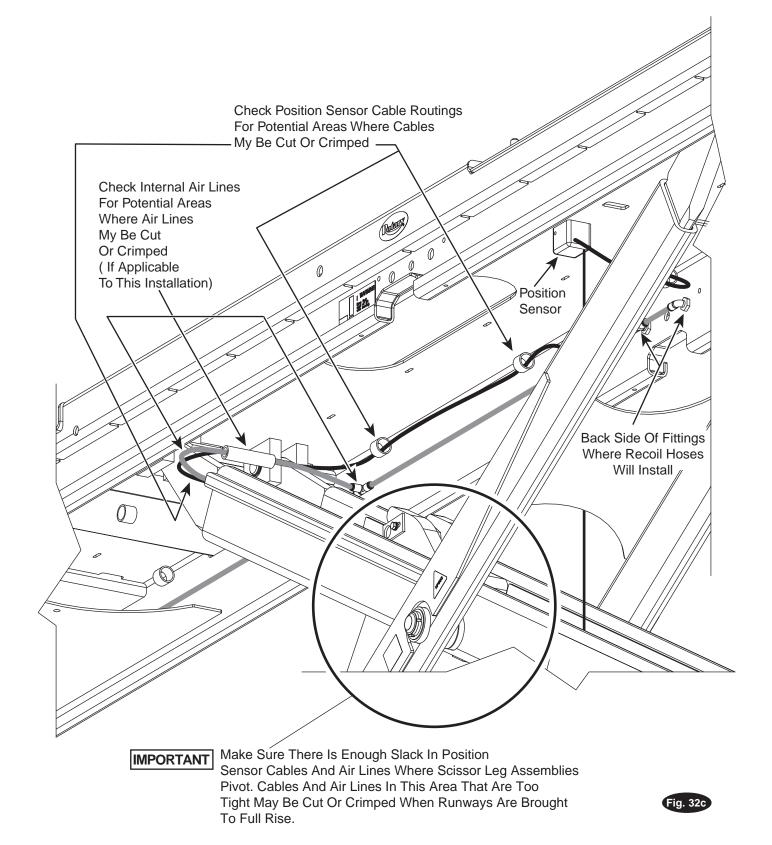
A.) Inspect and wire tie all hoses, cables and air lines, Figs. 32, 32a, 32b, and 32c. Make sure all hoses and cables are tucked neatly around base frame sides and that hose covers are tight.

B.) Install Floor Covers and anchor down control cabinet.









Step 20: Calibrating Runways:

The calibration process is a 3 step process. You must calibrate the lift at the Minimum (Level) Height, Alignment / Midpoint (Level) Height, and at the Maximum (Level) Height. All three heights must be set for proper operation of the lift.

IMPORTANT Before calibrating runways make

sure they are resting completely on the floor and they are level across the top.

To lower the lift to the floor, begin by raising the run-

ways off of the locks

continue to raise until the

locks click. Then lower runways to the floor with the

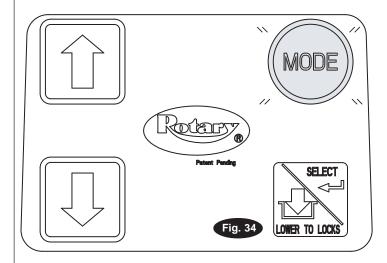


If the runways stop short of the desired height(s) during calibration, you may have to reset the runway heights. When the runways stop short of the desired height(s), it usually means that one or more of the height limits have been set by mistake. As you scroll down through the menus to set your desired height(s) you will also see a reset option for each height requirement. Also deactivate the Preferred Height Limits, see page 5 of the operations manual. Verify lift is level as you set your desired heights - refer to Step 11: Raising Runways if lift is not level.

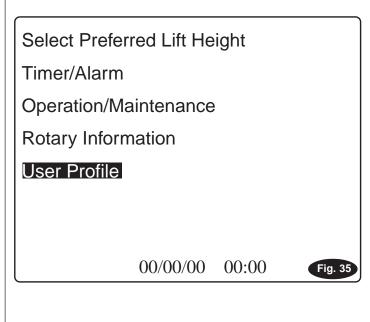
Step 1: Setting Minimum (Level) Height:

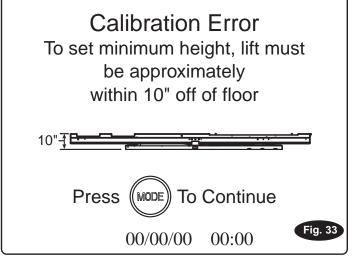
A.) Runways should be resting on the floor. A calibration error will occur if you try to calibrate and the runways are above 10", Fig. 33. If this occurs you need to reset your **Minimum (Level) Height.** Follow steps 1B. thur 1D. then highlight "**Reset Minimum (Level) Height**" and press "SELECT". Continue calibration at step 1D.

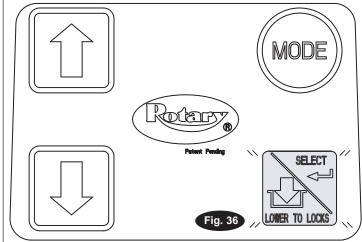
B.) Press "MODE" button, Fig. 34.



C.) Scroll down until **"User Profile"** is highlighted, Fig. 35 and press **"SELECT"**, Fig. 36.



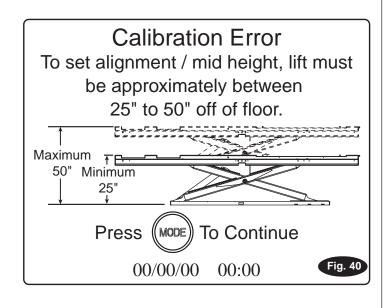




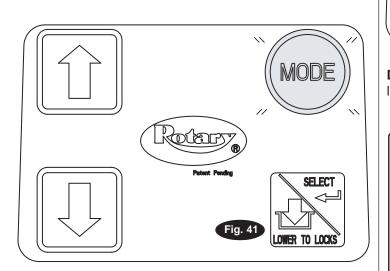
D.) Scroll down until "Set / Change Calibration" is high-F.) Press the "MODE" button, Fig. 34. lighted, Fig 37 and press "SELECT", Fig 36. You have completed the first step of the three steps required. G.) Calibration warning screen will appear until calibration is complete, Fig. 39. **Back To Previous Menu** Beeper Set Date / Time Calibration Warning Screen Change Lift Type Will Appear Language Set / Change Height Limits Set / Change Calibration Fig. 37 00/00/00 00:00Calibration Of Runways Is Incomplete E.) Scroll down until "Set Minimum (Level) Height" is highlighted, Fig 38 and press "SELECT", Fig. 36. DO NOT LOAD LIFT Fig. 39 00/00/00 00:00**Back To Previous Menu** Set Maximum (Level) Height **Reset Maximum Height** Set Alignment / Midpoint (Level) Height Set Minimum (Level) Height **Reset Minimum Height** Fig. 38 00/00/00 00:00

Step 2: Setting Alignment / Mid Height:

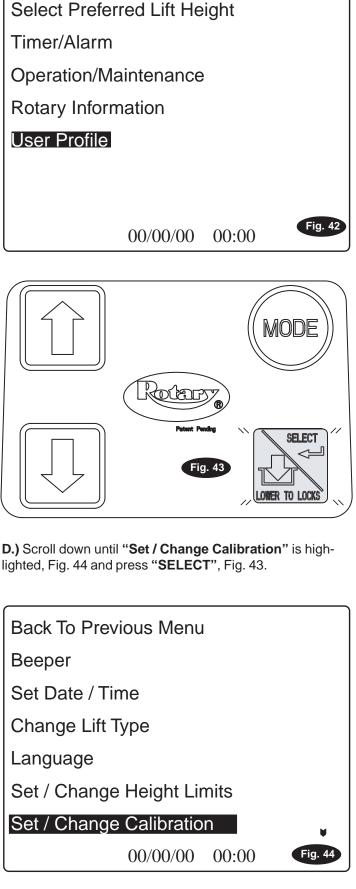
A.) Raise runways to alignment / mid height predetermined by the customer. Alignment / mid height is set approximately between 25" to 50". A calibration error will occur if you are outside of these dimensions forcing you to reset your alignment / mid height, Fig. 40. Verify runways are level before proceeding.



B.) Press the "**MODE**" button, Fig. 41.



C.) Scroll down until **"User Profile"** is highlighted, Fig. 42 and press **"SELECT"**, Fig. 43.



E.) Scroll down until "Set Alignment / Midpoint (Level)Height" is highlighted, Fig 45 and press "SELECT", Fig. 43.

You have completed the second step of the three steps required.

Back To Previous Menu

Set Maximum (Level) Height

Reset Maximum Height

Set Alignment / Midpoint (Level) Height

Set Minimum (Level) Height

Reset Minimum Height

00/00/00 00:00

Fig. 45

Step 3: Setting Maximum Height:

A.) Raise runways to desired maximum height, **not to exceed 75**". Maximum height must be approximately within 10" of maximum rise or a calibration error will occur, Fig. 46. Verify runways are level before proceeding. **Note:** Maximum height may need to be adjusted to ensure lift is not on a lock, since in order to lower lift from a lock position, the lift must be raised slightly first. If lift stops short of 75", you will need to reset the maximum height. This can be accomplished by following steps 3B thru 3D and then selecting "**Reset Maximum Height**". Continue calibration at step 3D.

B.) Press "MODE" button, Fig. 41.

C.) Scroll down until **"User Profile"** is highlighted, Fig 42 and press **"SELECT"**, Fig. 43.

D.) Scroll down until "**Set / Change Calibration**" is high lighted, Fig. 44 and press "**SELECT**", Fig 43.

E.) Scroll down until "**Set Maximum (Level) Height**" is highlighted, Fig. 47 and press "**SELECT**", Fig. 43.

Back To Previous Menu

Set Maximum (Level) Height

Reset Maximum Height

Set Alignment / Midpoint (Level) Height

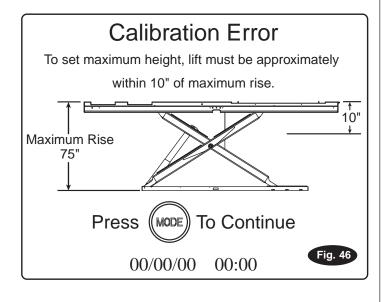
Set Minimum (Level) Height

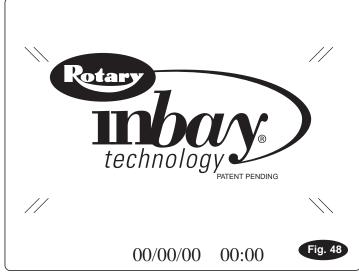
Reset Minimum Height

00/00/00 00:00

Fig. 47

F.) Press the "**MODE**" button, Fig. 41. Normal Inbay operation screen, Fig. 48, should appear if calibration was successful.





Step 20: Installing Runway Ramps & Stop Ramps:

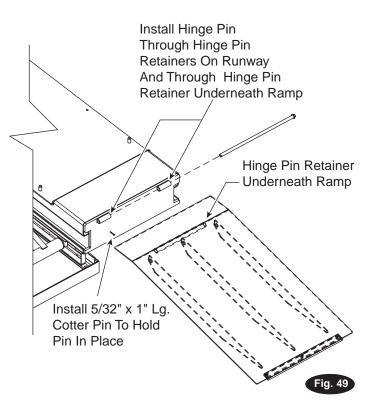
A.) Install runway ramps / transition plates and stop ramps per Figs. 49, 49a and 50.

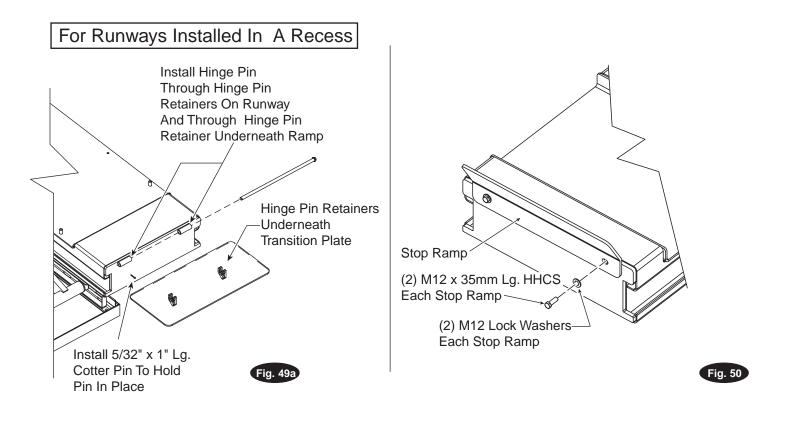
Note: If base frames are shimmed more than 1" in the rear the an extended ramp kit (XS100003) may be needed for low ground clearance vehicles. Contact Rotary Lift for additional information.

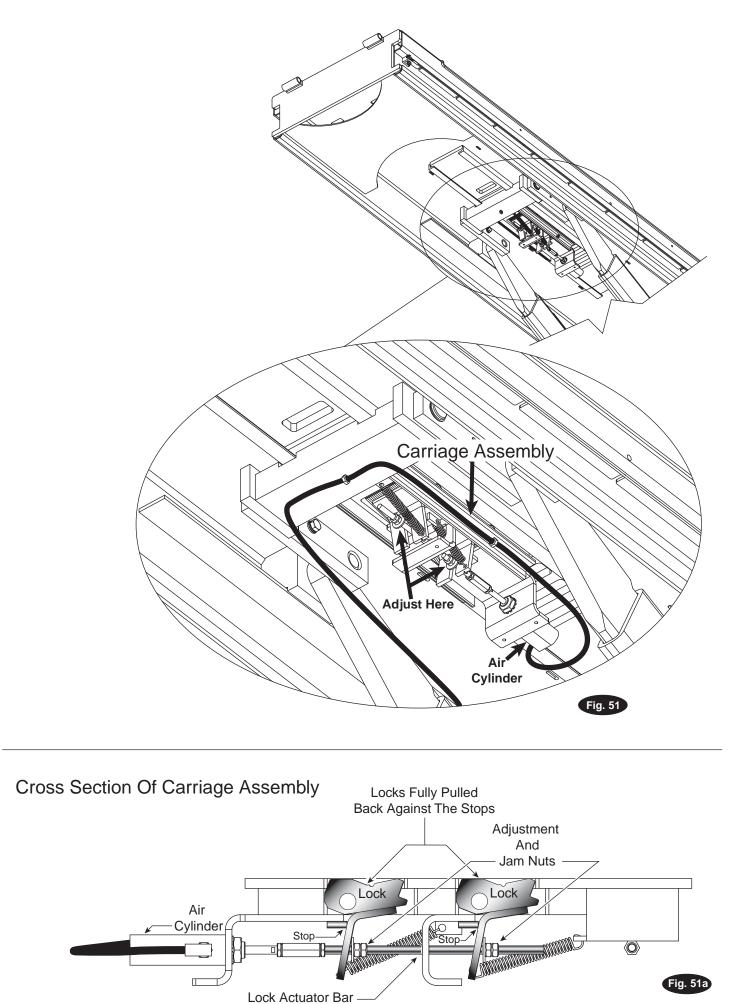
Step 21: Adjusting Lock Latches:

A.) Runways have dual locks. Raise lift and stop between lock clicks. Have an assistant manually actuate the air solenoid valve in the upper control cabinet. While maintaining air pressure, check each lock to make sure they are pulled back against their stops. If they a not making contact with the stops tighten the adjustment nuts, on the lock actuator bar, until the locks are pushed against their stops then tighten down the jam nuts to hold the locks in place, Fig. 51 and 51a.

IMPORTANT Only trained personnel should operate this lift.

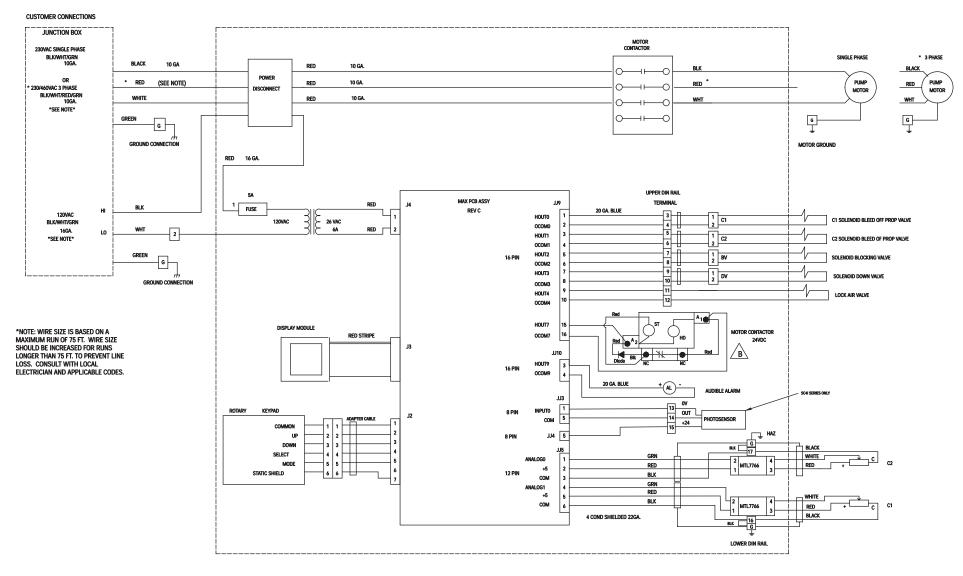






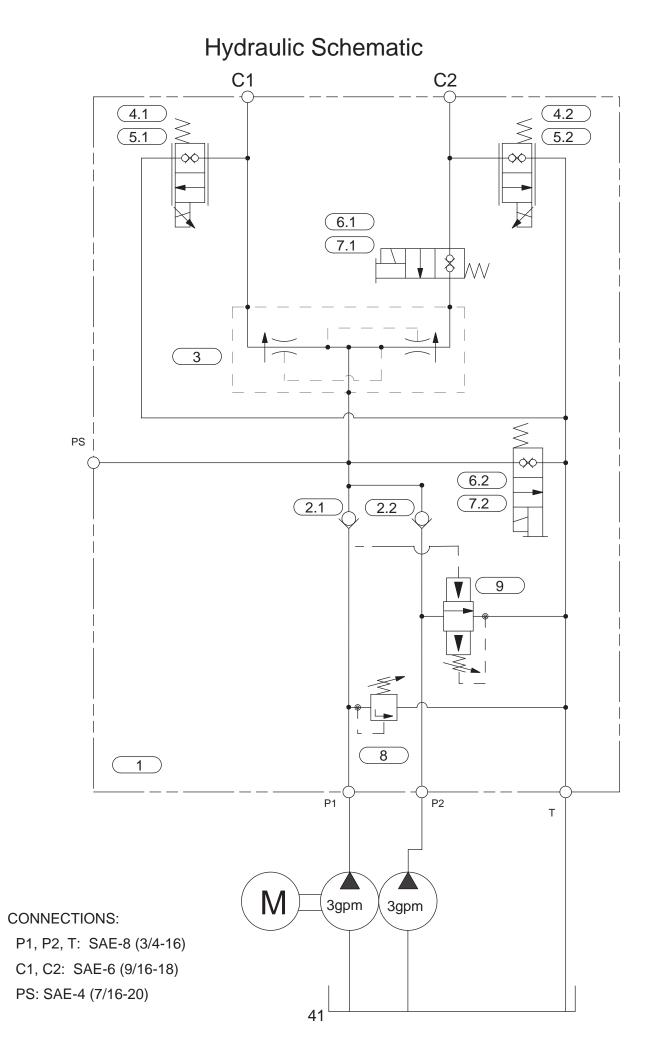
\mathbf{a}	\mathbf{n}
J	9

WIRING SCHEMATIC



40

NP745 REV. D



NOTES:

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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