



**MATOT**  
commercial grade  
lift solutions

# **Installation Information**

**2009**

**Model 300**

**Dumbwaiter**

## Introduction

This new model of Matot Dumbwaiter has several features that we hope you find are beneficial.

Precision extruded rail sections provide a consistent size and shape giving the rail sections very close tolerances for smooth rail joints.

Self aligning splices, the design of the clamp brackets automatically align the rails at all of the splice points.

Traveling cable length provided to run completely back to the controller, no more mid point connections.

Slack Cable, Finals, and Normal stopping switches are all located on the car and are connected through the traveling cable. Hoistway wiring of these devices is no longer required. Only the machine, pushbuttons and Interlocks have to be "wired" in the field.

Temporary Run Control is built into the controller. A few quick connections along with a run station and you can move that car up and down the hoistway for setting doors, verifying switch function, and locating floor targets.

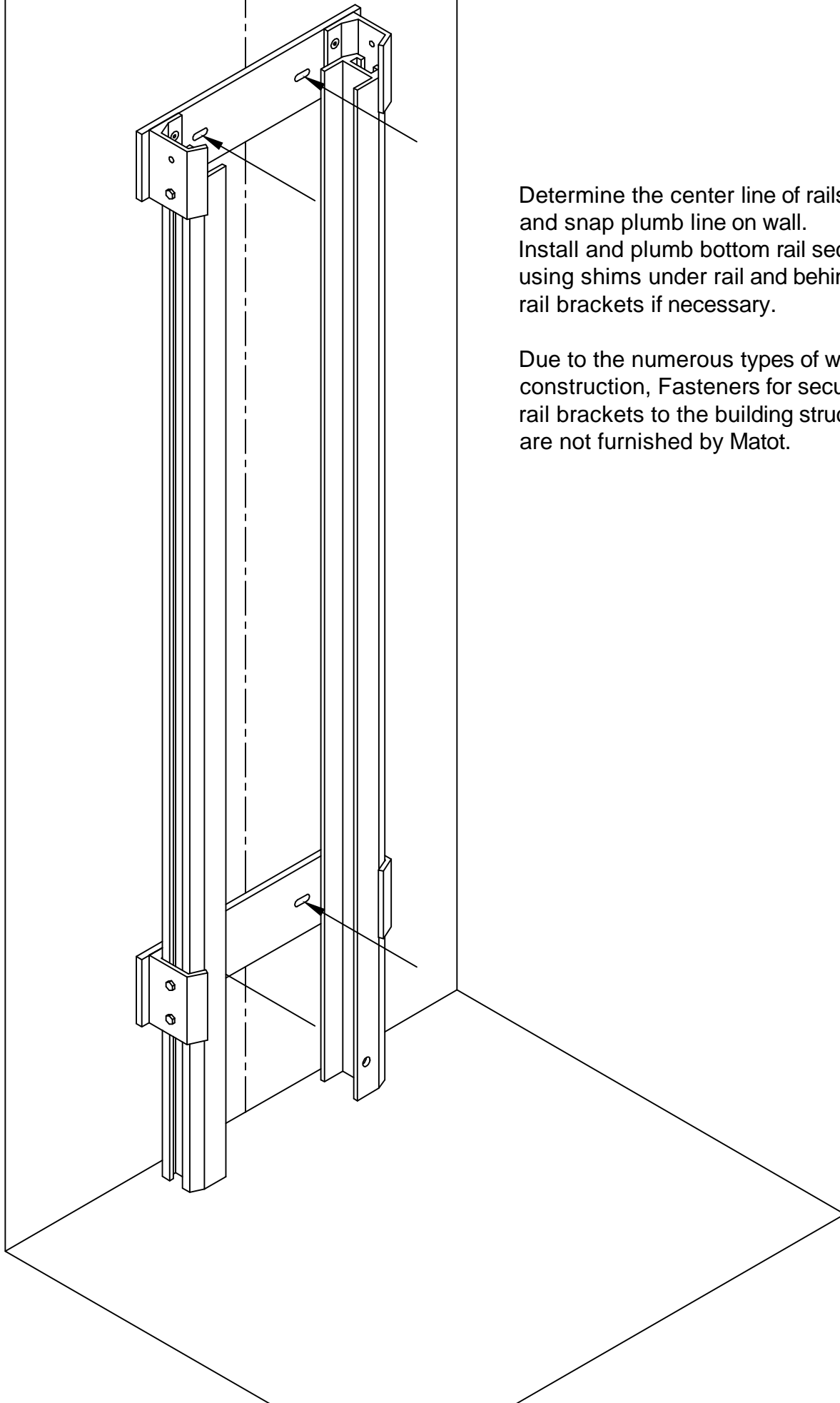
VF motor control is standard, the smooth starts and stops not only give more accurate stopping levels, it also increases the life expectancy of the equipment.

## Getting Started

If the dumbwaiter travels through more than one floor, the smallest floor opening must be used in plumbing the hoistway.

Find out from the Contractor or Builder where the hoistway doors are to be placed. Also find out if door wall must coordinate with other building walls, as this could affect the entire hoistway. Contractor or Builder should provide benchmarks to indicate wall location and finished floor height.

The controls for this unit include a VF drive that has been programmed at the Matot factory for proper operation. If you have trouble running in the temporary run mode, **DO NOT ATTEMPT TO ADJUST OR MODIFY THE DRIVE SETTINGS!** Call the factory for assistance. 1-800-369-1070 extension 321 or 308



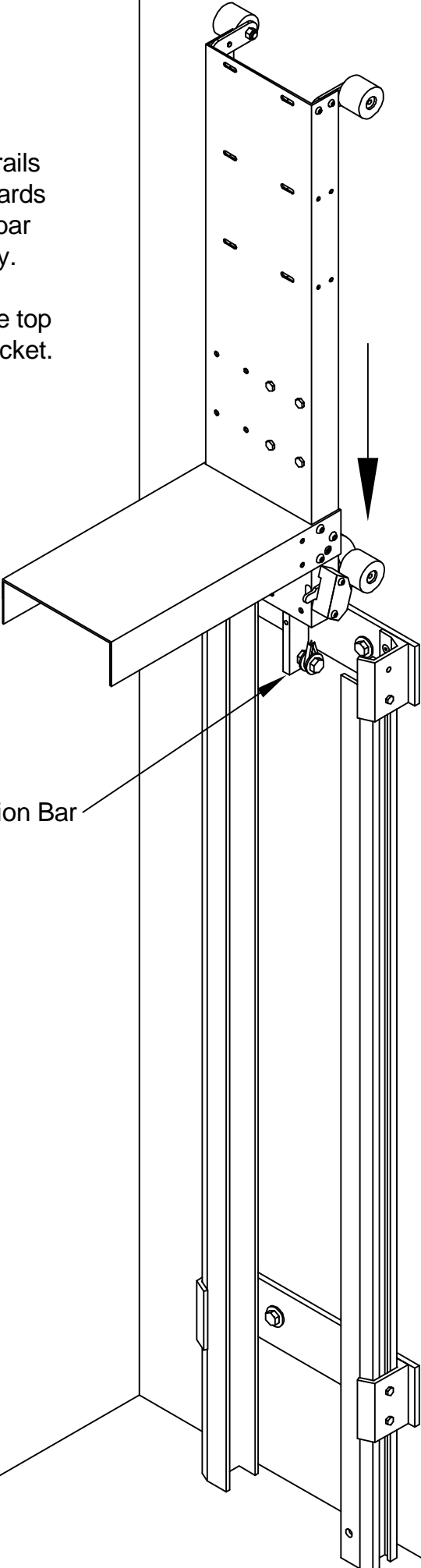
Determine the center line of rails and snap plumb line on wall. Install and plumb bottom rail section using shims under rail and behind rail brackets if necessary.

Due to the numerous types of wall construction, Fasteners for securing rail brackets to the building structure are not furnished by Matot.

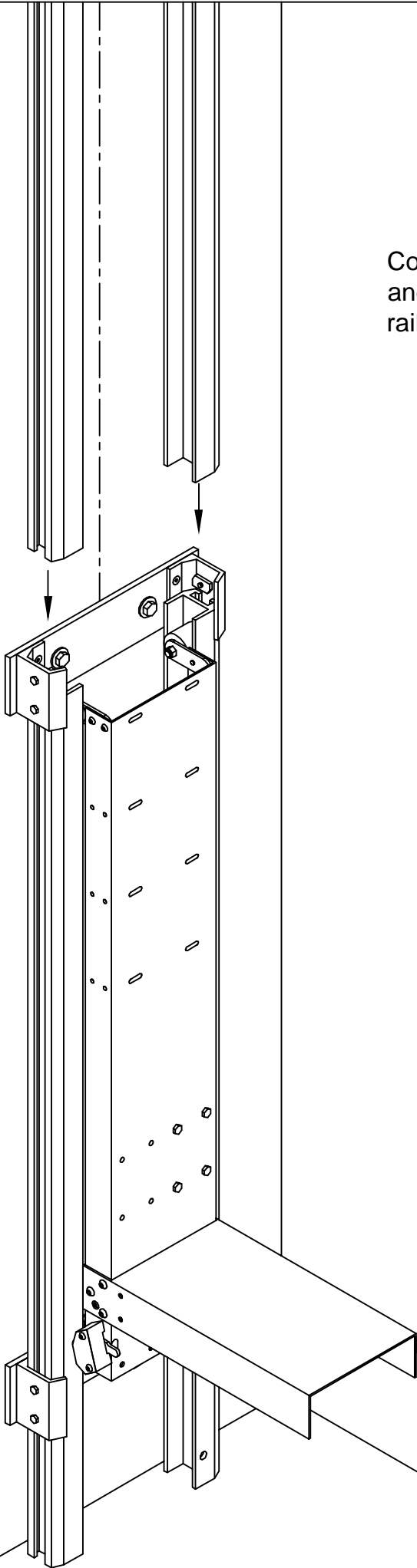
Slide car sling into rails while pressing upwards on the suspension bar to release the safety.

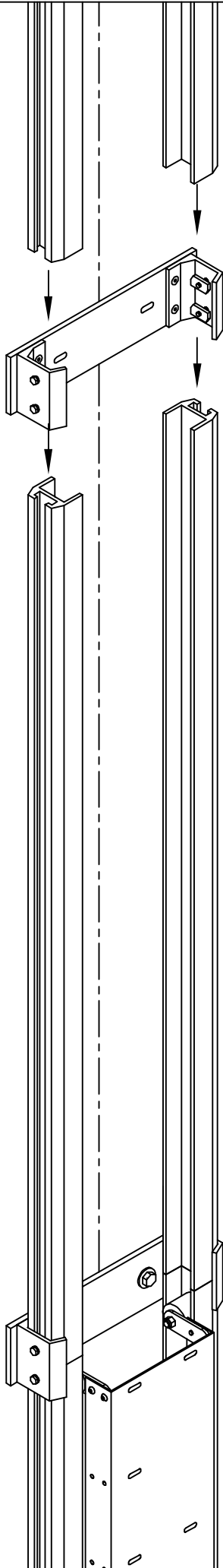
Lower Sling until the top is below the rail bracket.

Suspension Bar



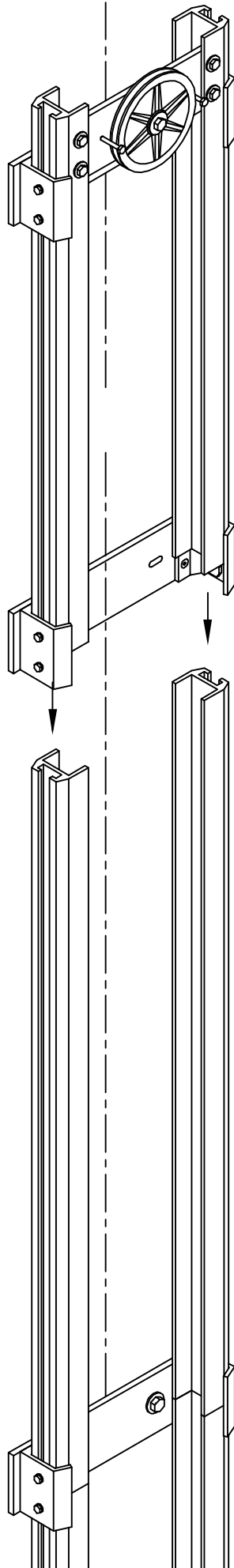
Continue stacking, plumbing  
and securing intermediate  
rail sections and brackets.





For rail lengths 5 Ft. or shorter  
a bracket will be located at each  
splice point.

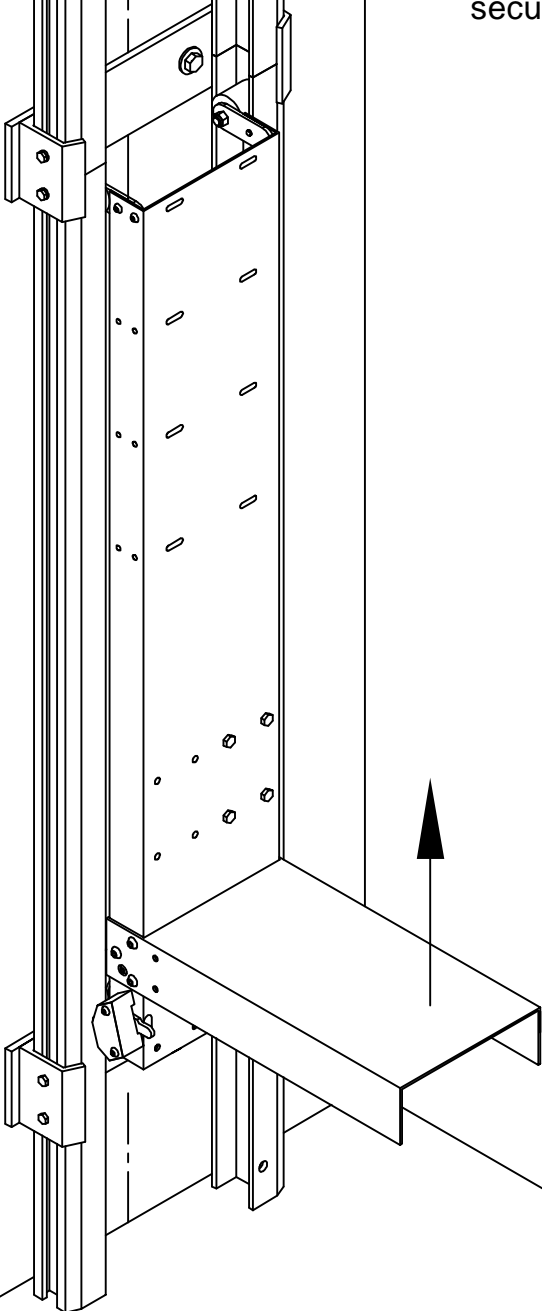
For longer rail lengths rail brackets  
may also be located at non splice  
points. Please refer to the rail  
stack detail for specific informatior  
on your unit.



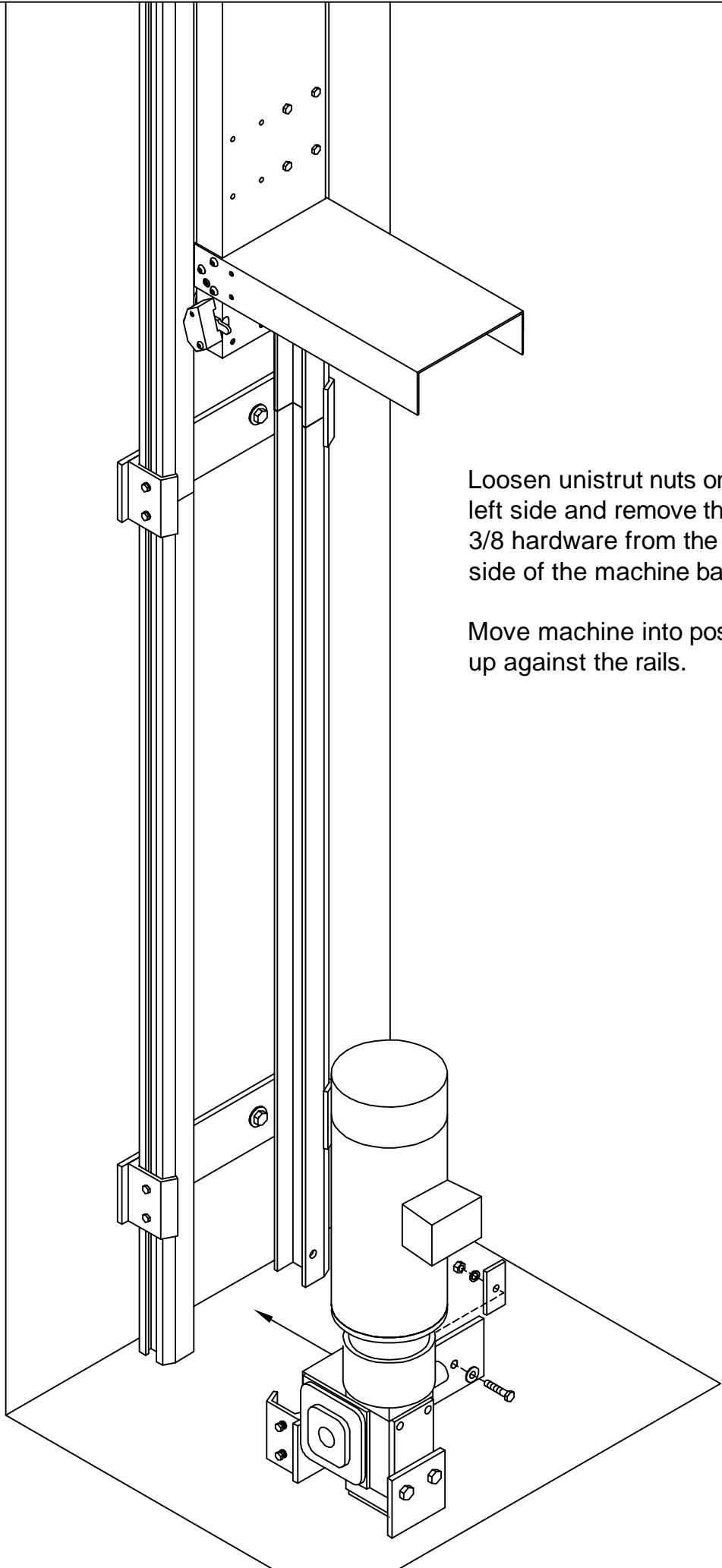
Finish stack with top rail section which is shipped assembled.

Push sling upwards and lock into place so there is room to install the machine onto the bottom section of rail.

Although the broken rope device will hold the sling in place, it is recommended that you use an additional blocking method to secure the sling.

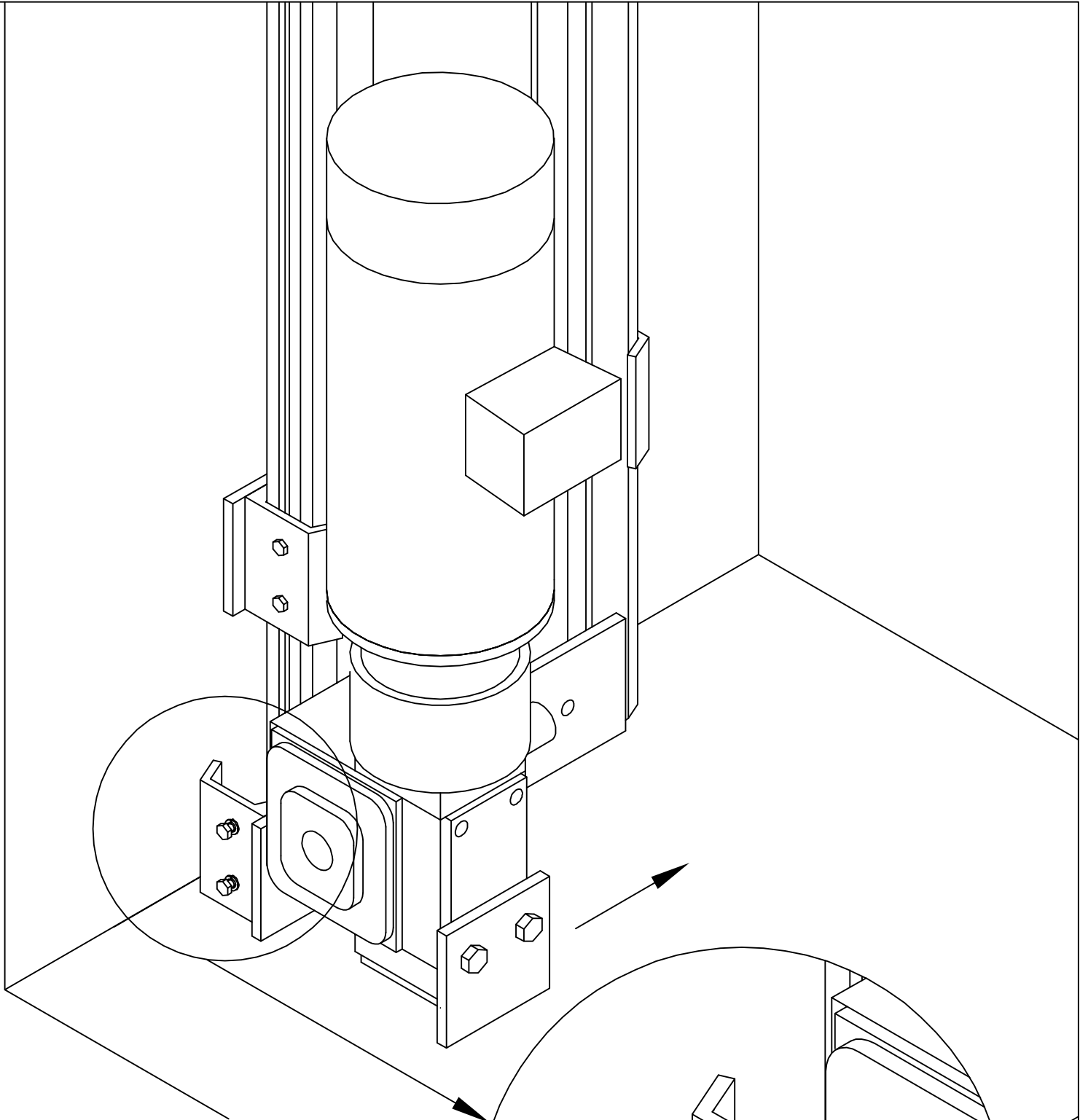




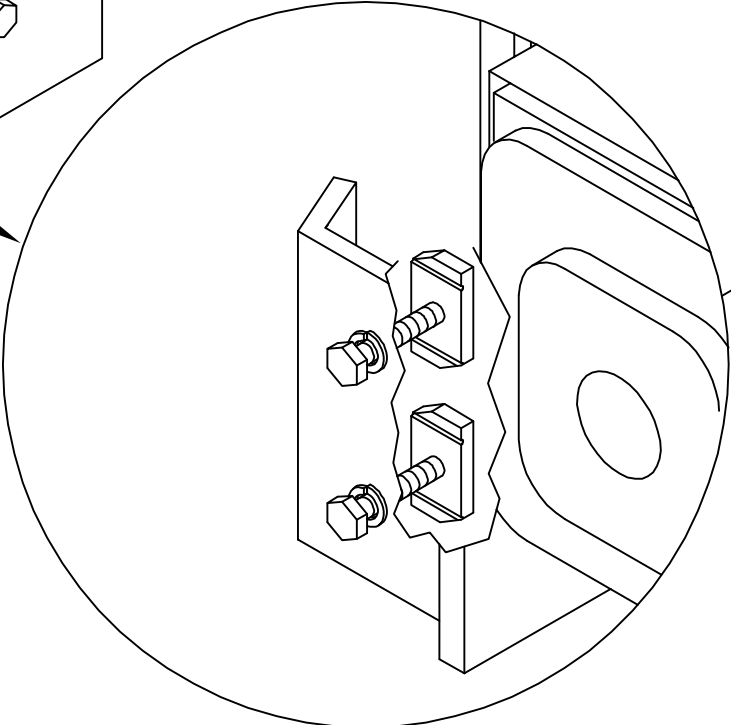


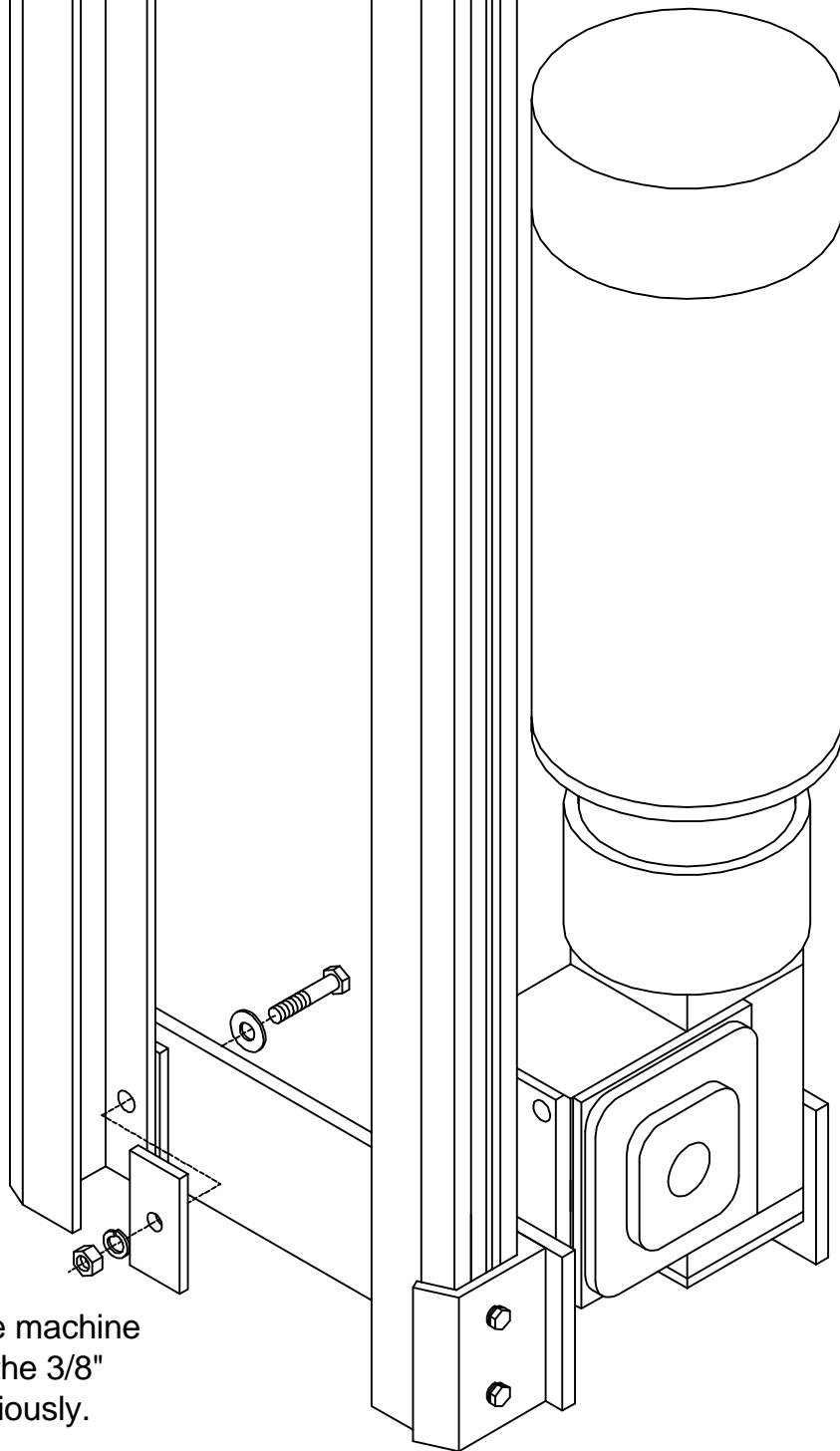
Loosen unistrut nuts on left side and remove the 3/8 hardware from the right side of the machine base.

Move machine into position up against the rails.



Orientate unistrut nuts as shown in the enlarge view and then slide the machine to the right. Unistrut nuts should slip into the back of the guide rail. Tighten unistrut nuts.





Bolt the other side of the machine plate thru the rail using the 3/8" hardware removed previously.

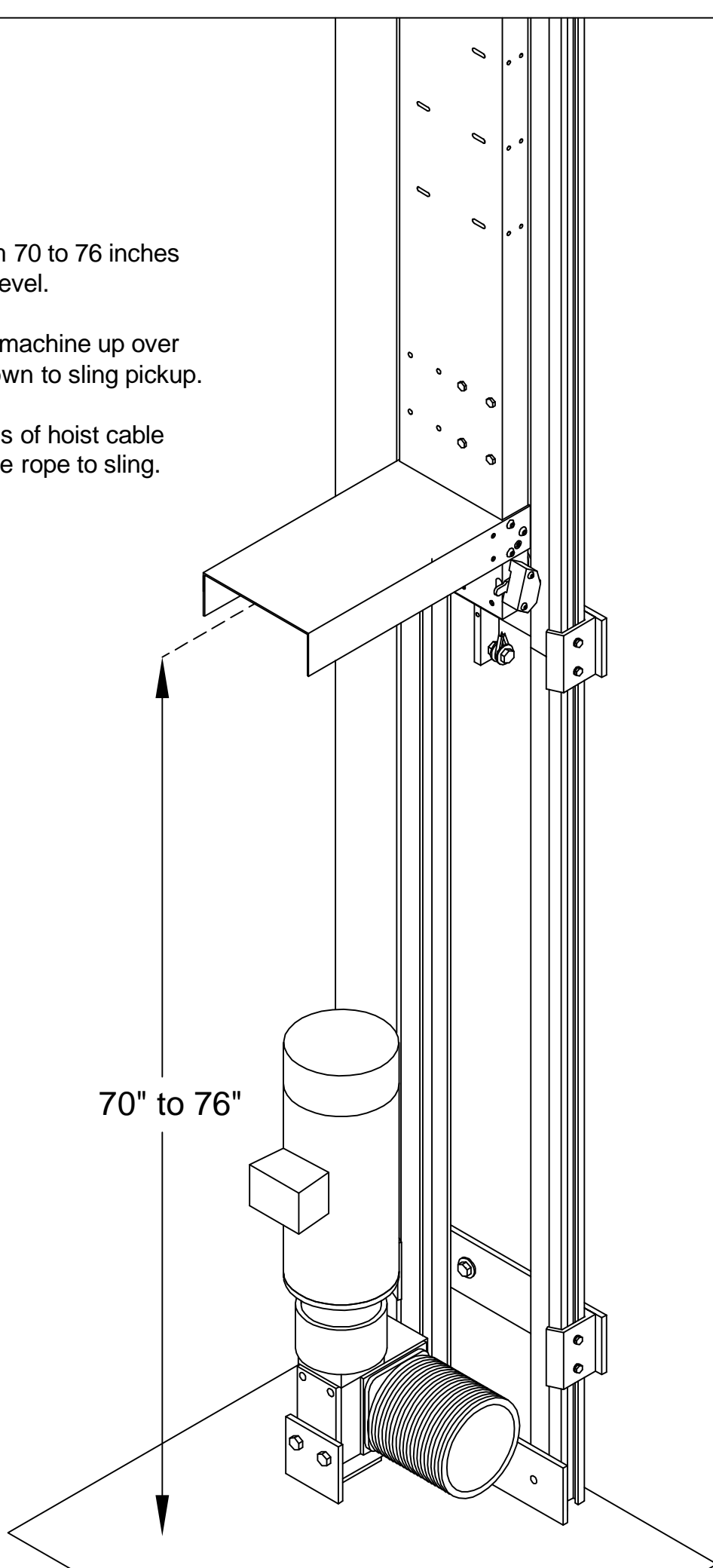
At this point it will be beneficial to have a running machine. Refer to final details and mount Controller in the location shown.

Refer to your Electrical drawings and connect power to Controller. Make the electrical connections from the machine to the Controller. The Controller has provisions for using a temporary run station. Install temporary jumpers from 22 to input 0 and 1. Move the "Temp Run" toggle switch to the on position and connect your run station. The machine can then be operated by constant pressure operation. Note: The machine will run in leveling speed when using this feature.

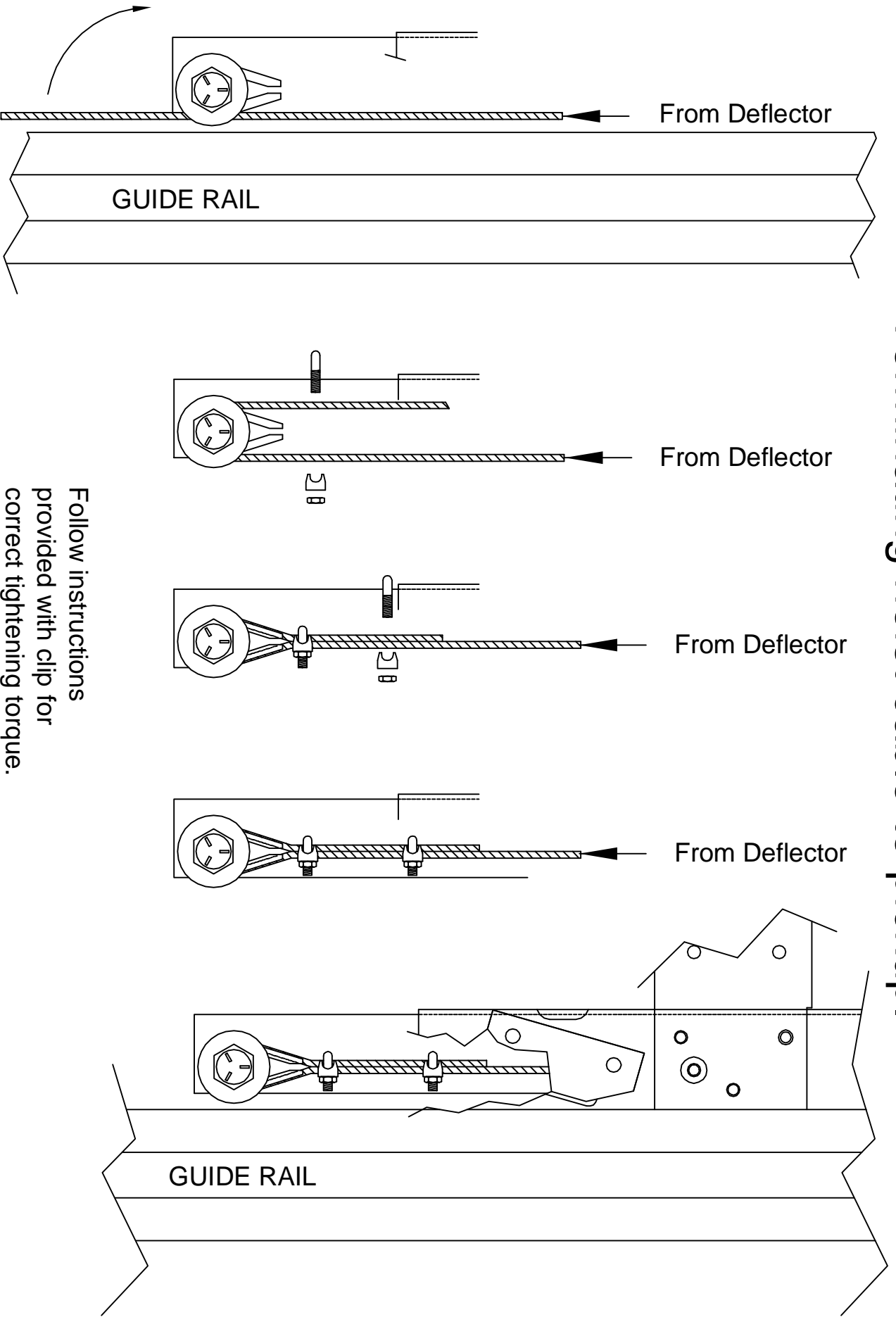
Position sling platform 70 to 76 inches above machine floor level.

Run hoist cable from machine up over deflector and back down to sling pickup.

Prewrap Four (4) turns of hoist cable on drum and terminate rope to sling.



# Terminating hoist cable to pickup.

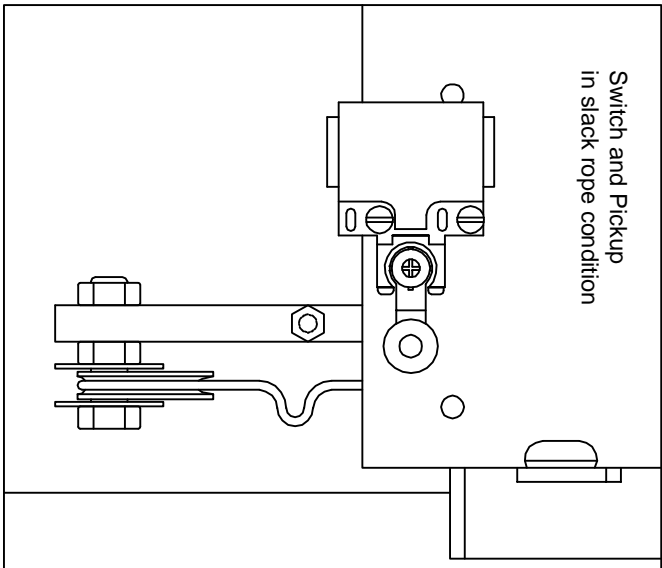


For proper safety operation  
the tag end must loop towards  
center of hoistway

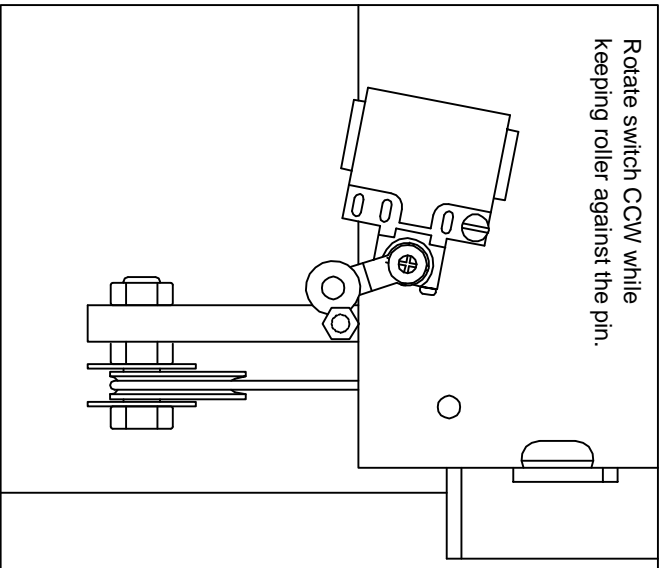
Follow instructions  
provided with clip for  
correct tightening torque.

# Resetting Slack Cable Switch

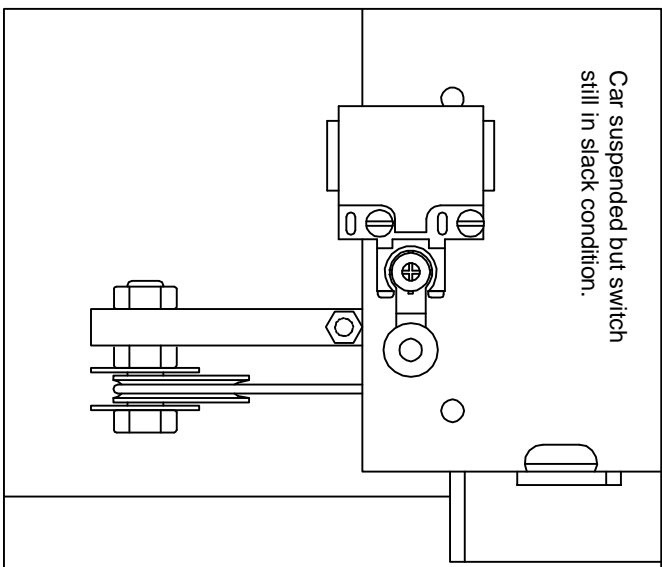
Switch and Pickup  
in slack rope condition



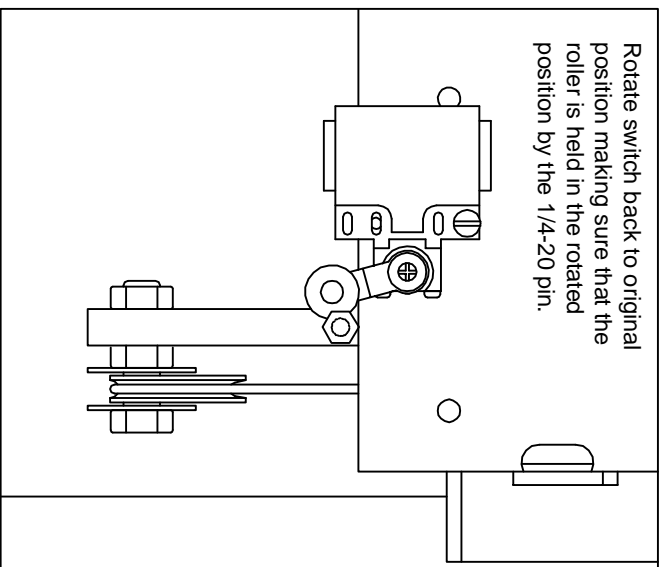
Rotate switch CCW while  
keeping roller against the pin.



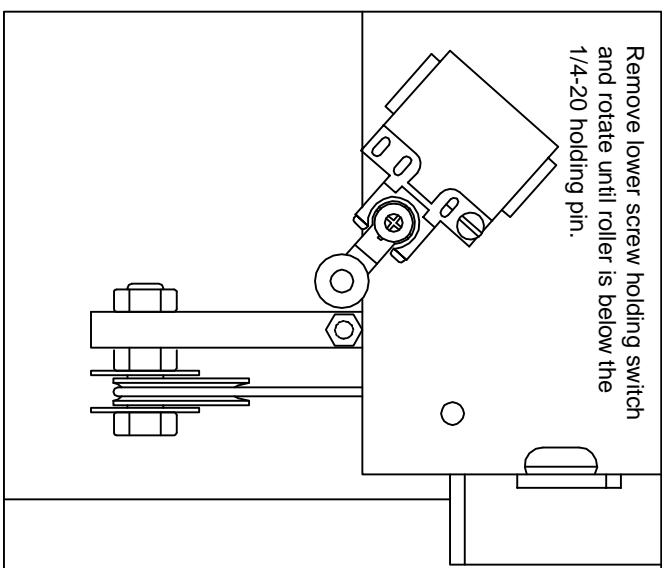
Car suspended but switch  
still in slack condition.



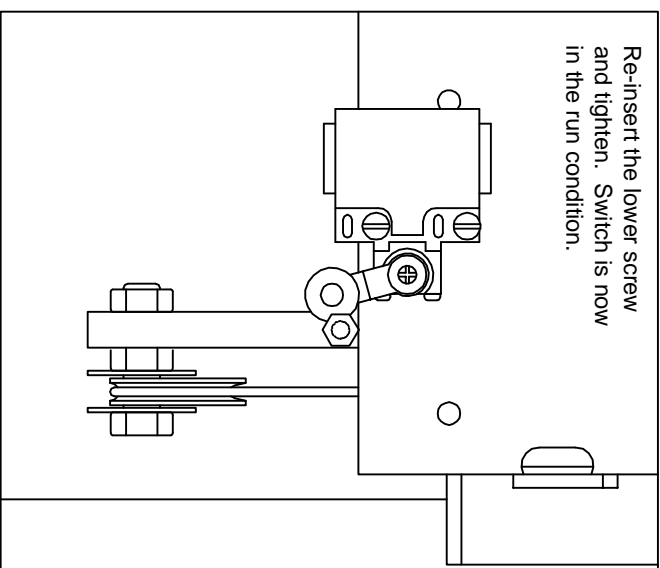
Rotate switch back to original  
position making sure that the  
roller is held in the rotated  
position by the 1/4-20 pin.



Remove lower screw holding switch  
and rotate until roller is below the  
1/4-20 holding pin.



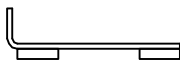
Re-insert the lower screw  
and tighten. Switch is now  
in the run condition.



# Floor Targets & Starting Locations



Correcting  
Dn Stop / Index

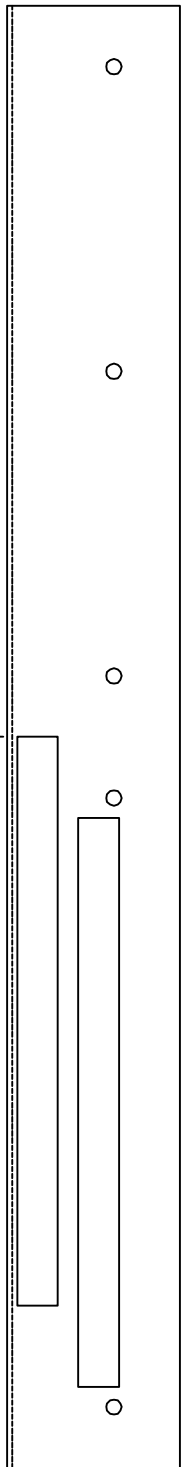


Up Stop / Index  
Dn Stop / Index



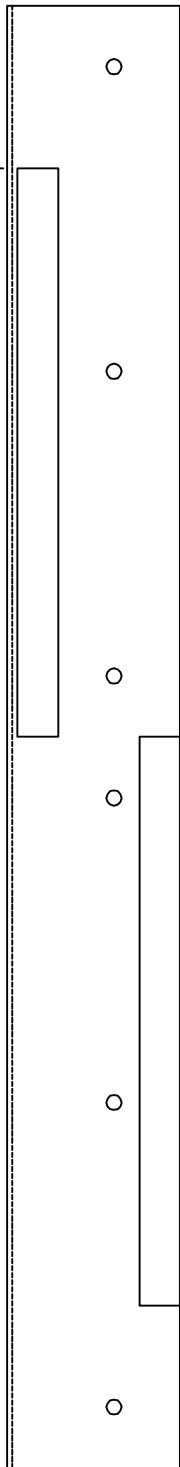
Up Stop / Index  
Correcting

Door Sill +6"  
Above Flr. Level



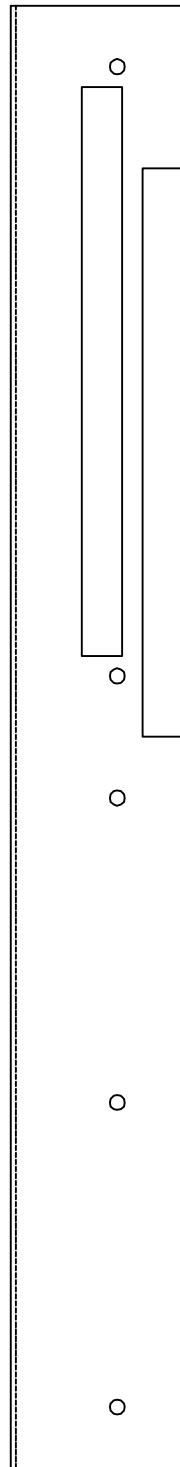
Bottom Terminal  
# E15300

Door Sill +6"  
Above Flr. Level

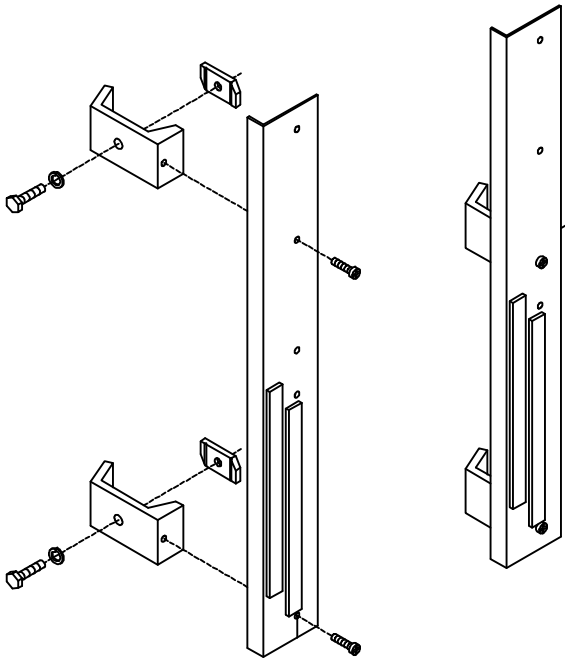


Intermediate Floors  
# E15305

Door Sill - 2"  
Above Flr. Level



Top Terminal  
# E15310

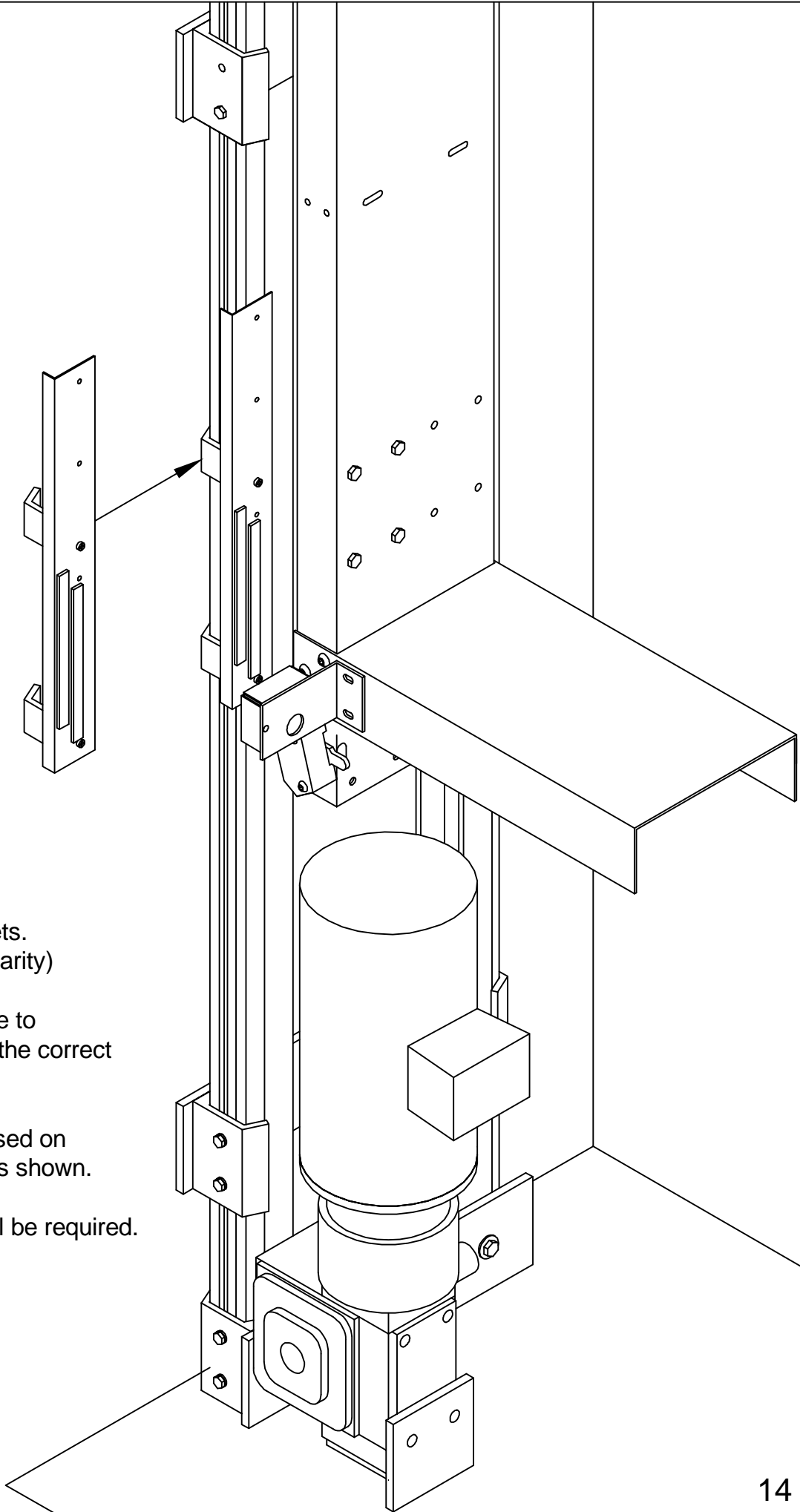


Mounting Floor Targets.  
(Car not shown for Clarity)

Review previous page to  
insure you are using the correct  
target for each level.

Mount the targets based on  
the starting elevations shown.

Final adjustments will be required.



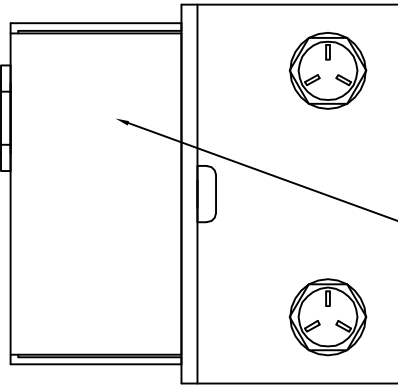




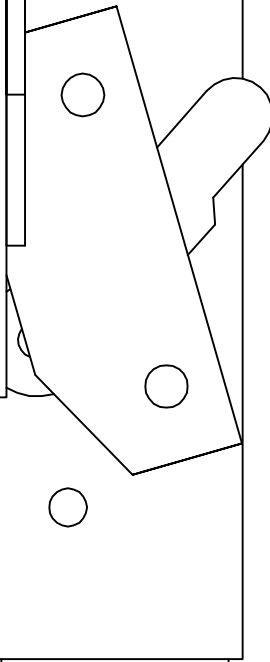
1/4"-5/16"

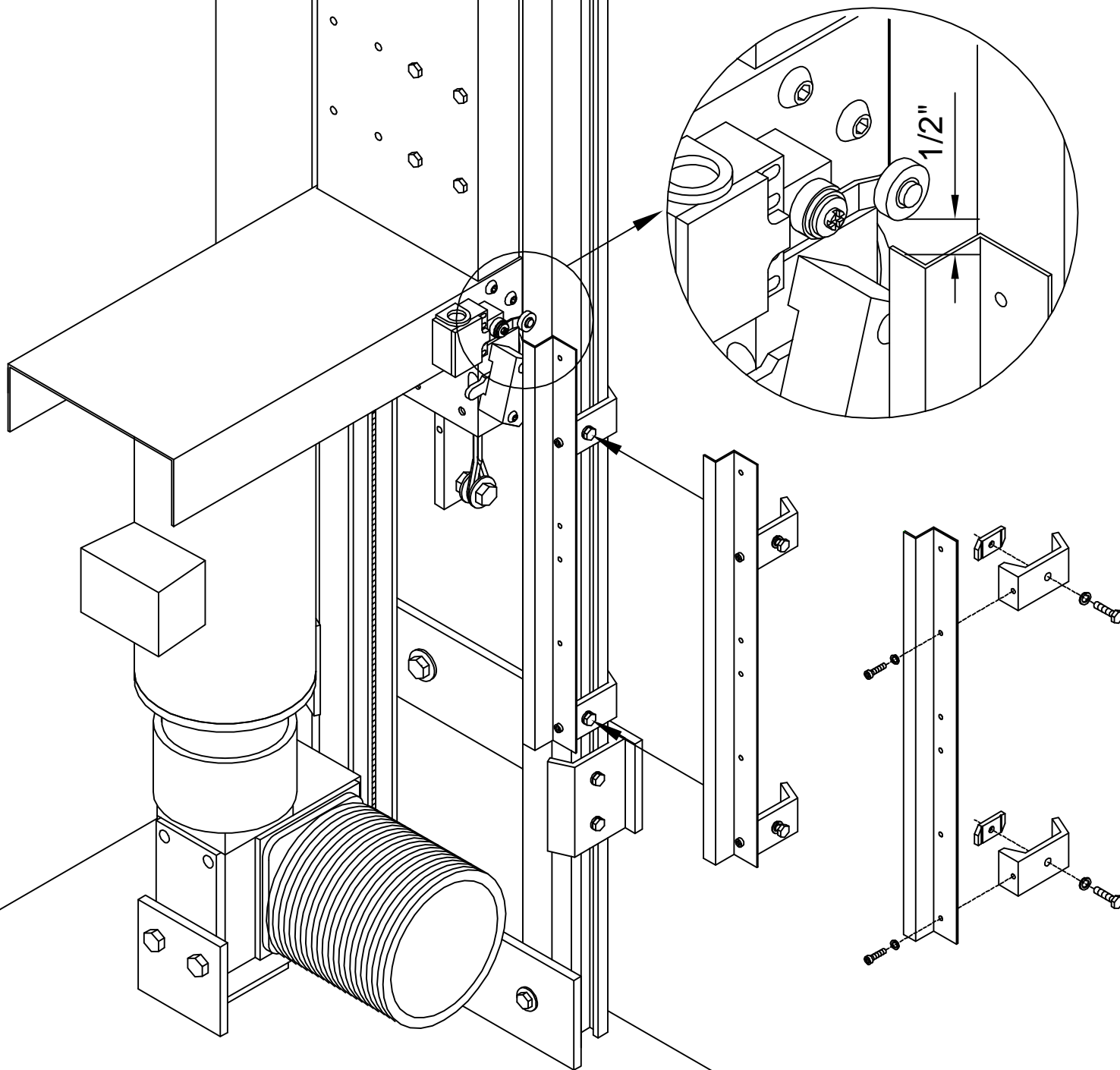
After mounting the floor targets, check the air gap between the magnets and sensor face.

If the air gap is not within the dimensions shown above, adjust the sensor assembly to obtain the required setting.



Sensor Assembly

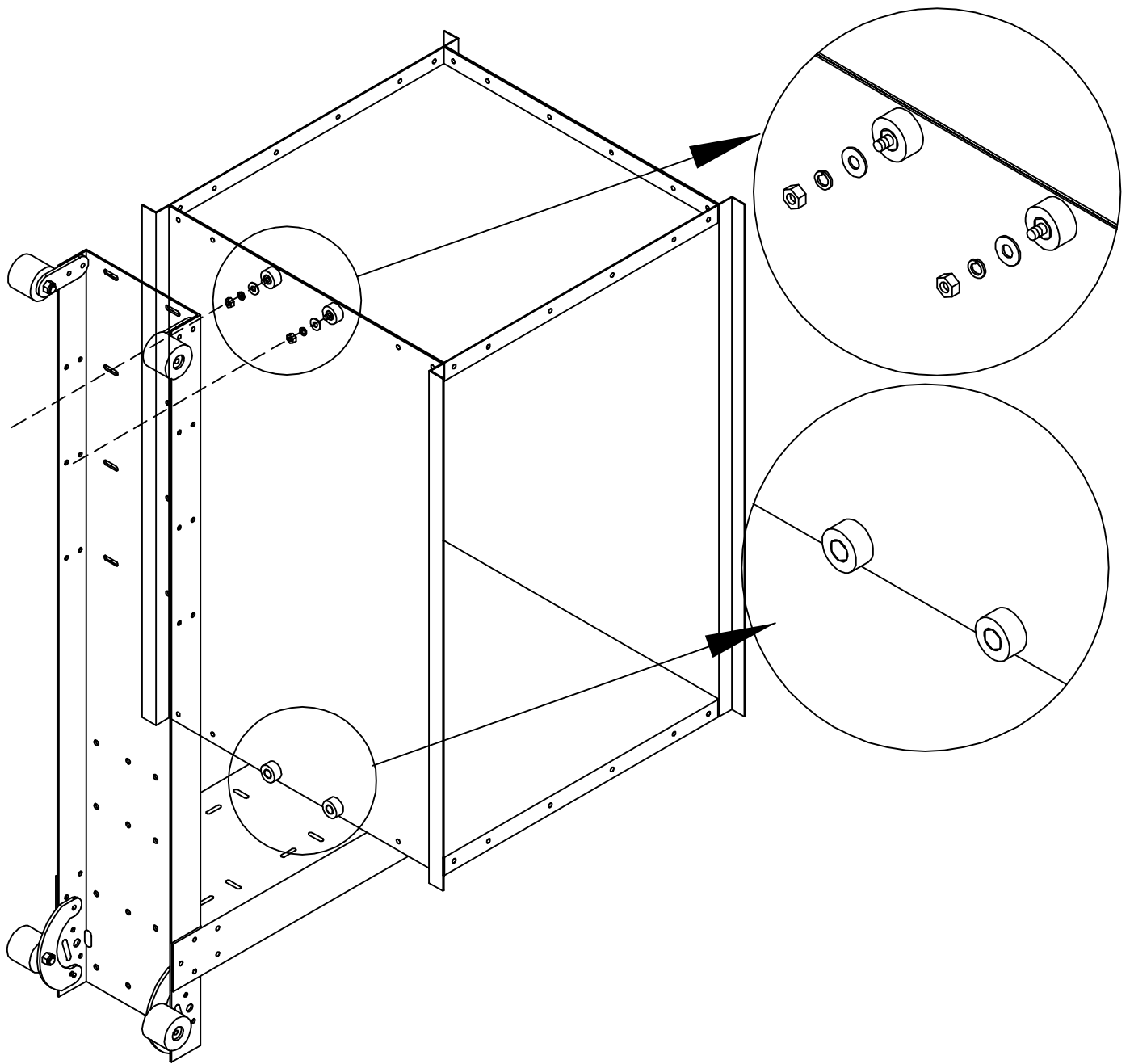




Mounting Final Limit Cams.  
(Car not shown for Clarity)

With car at lowest floor level,  
mount limit cam so that the  
edge is about 1/2" below the  
Final Limit roller.

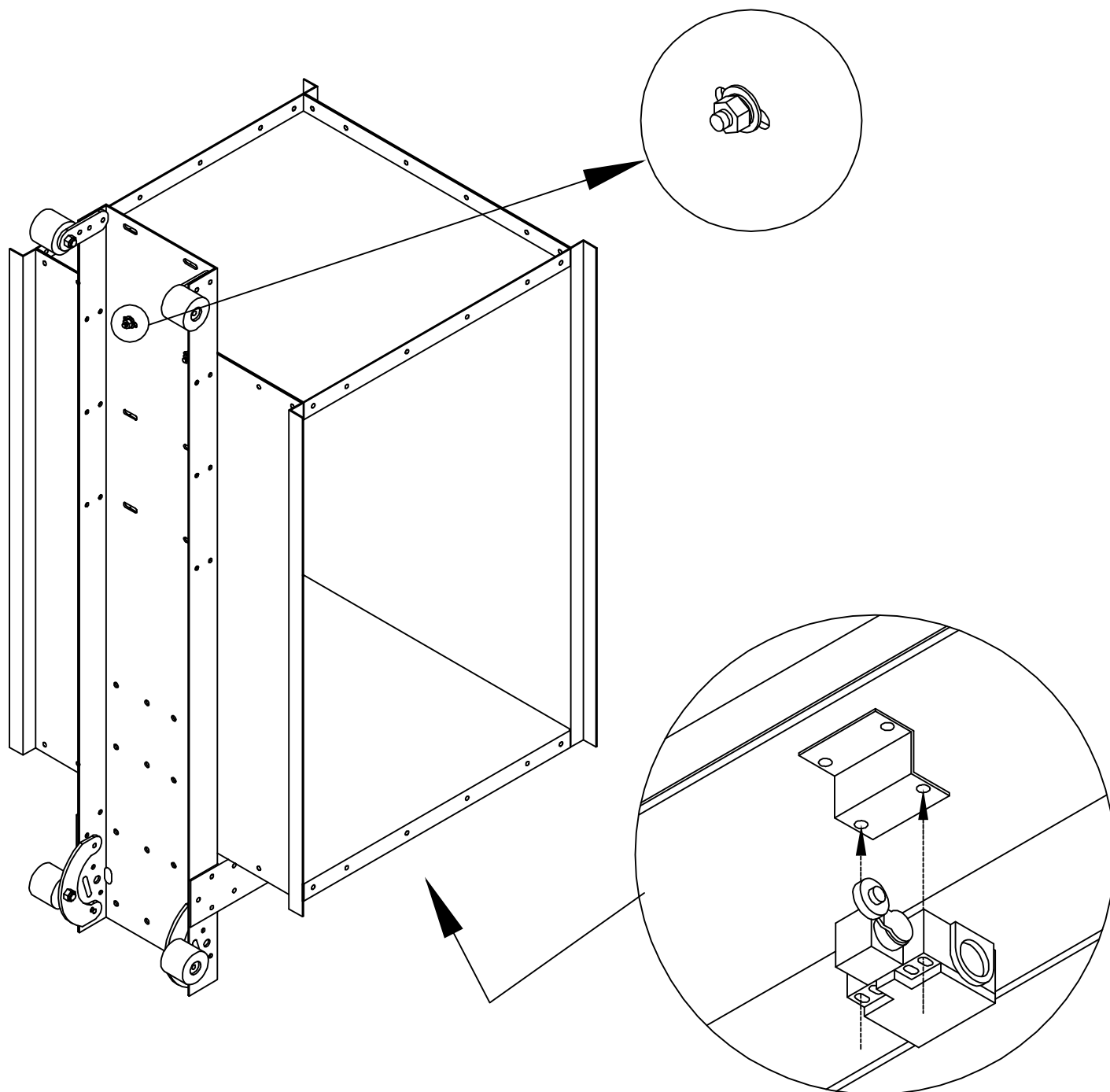
Move car to top landing and repeat  
for Upper Terminal, mounting the cam  
about 1/2" above the roller.



### Mounting Car to Sling (Rails, etc., not shown for clarity)

The side of the car that is to be mounted against the sling has been predetermined in the factory. This side contains spacers and studded spacers for alignment and connecting the top of the car to the sling.

Remove a nut, lockwasher, and flat washer from each of the top connection points. Place car on the sling and push it against the sling, making sure that the two upper studs line up with the slots provided. Replace the nut and washers and hand tighten them at this time. Fully tighten after the final car placement has been determined and the car platform has been secured to the sling.



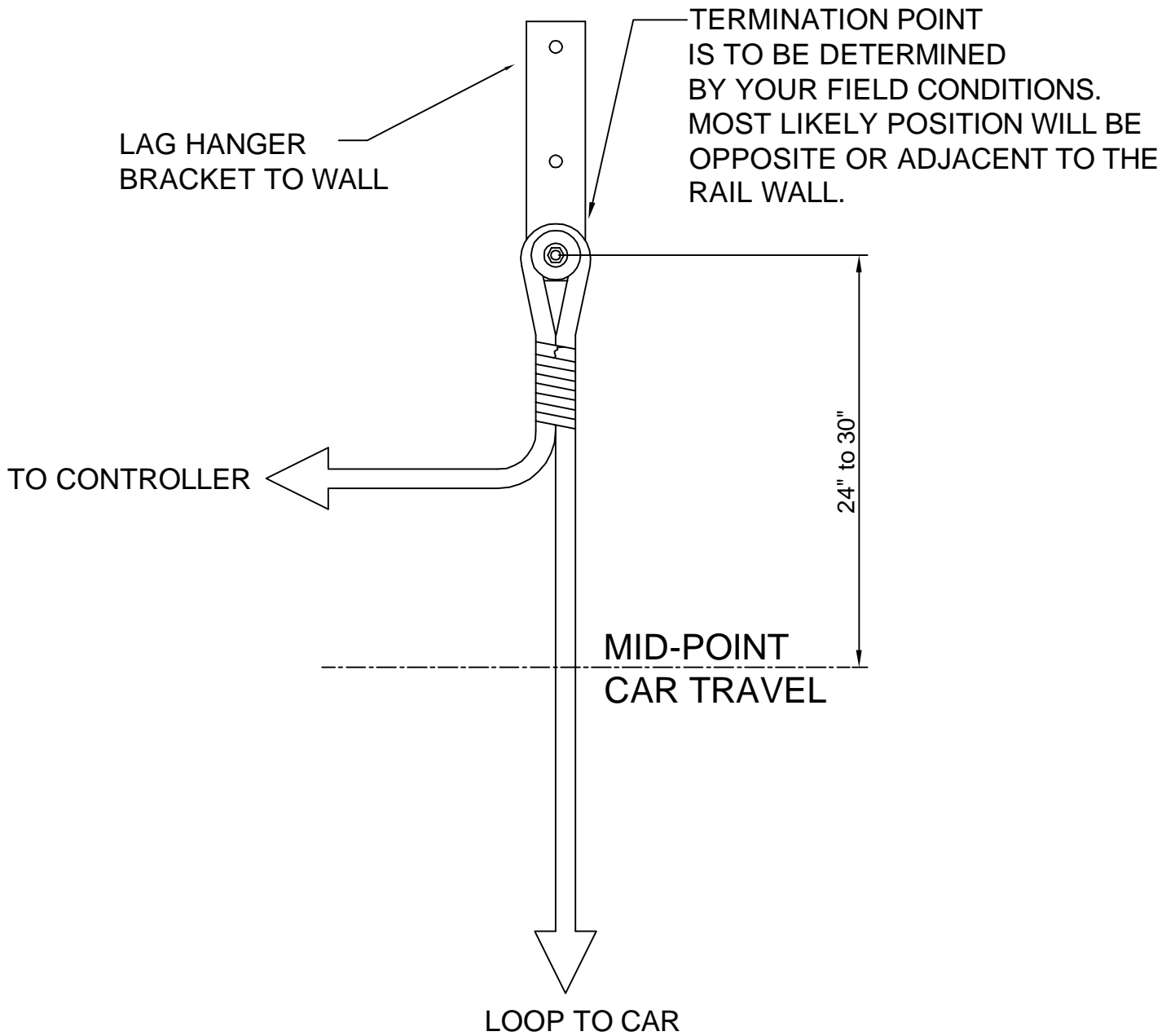
Position car on sling for correct alignment and clearances to openings. Refer to your final layout drawings for this information.

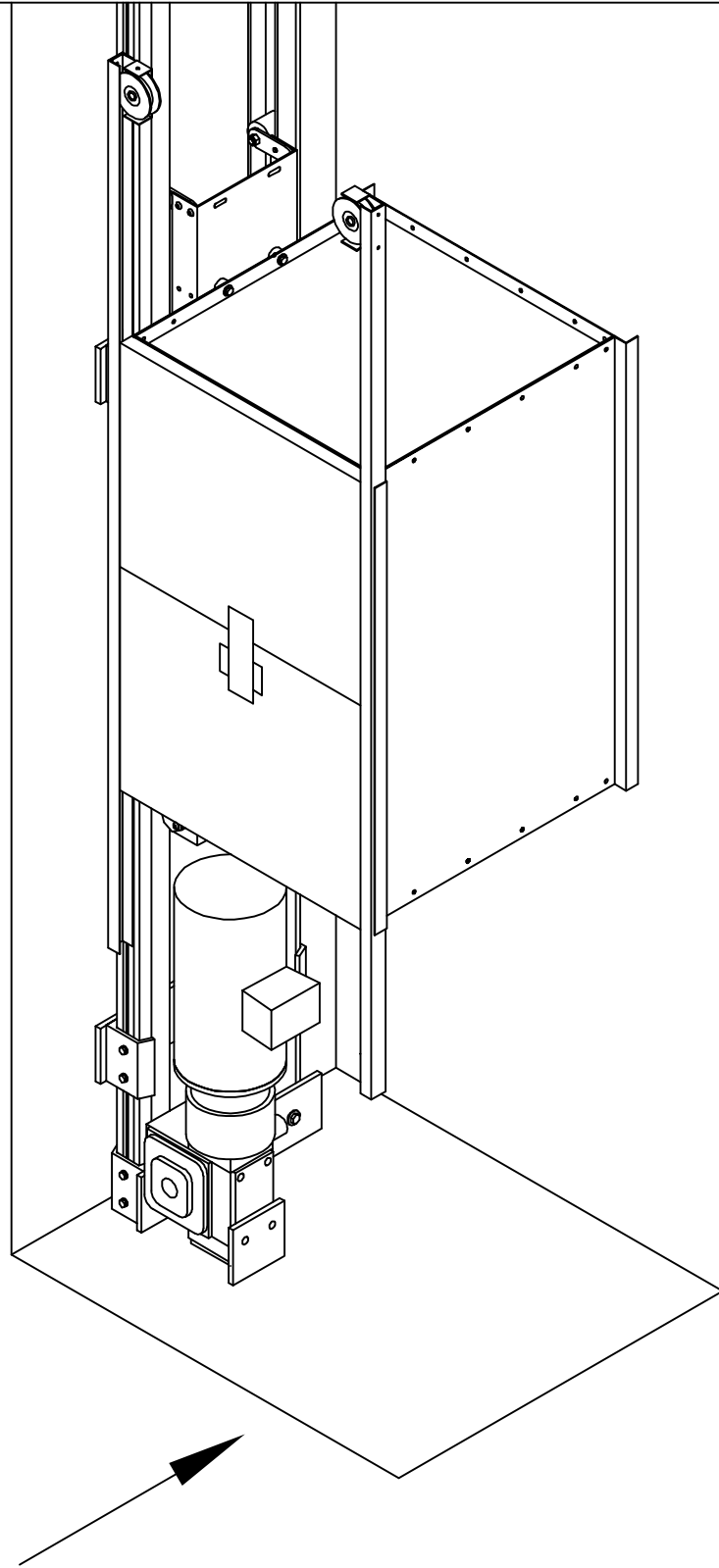
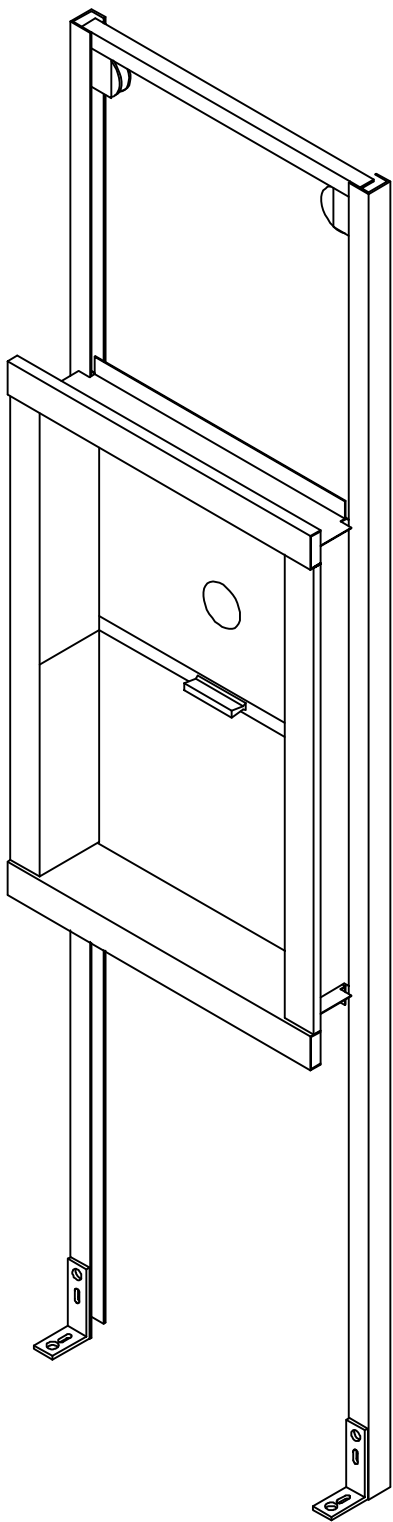
With car properly positioned, secure the platform to the sling using the wood screws and flatwashers provided. Matot suggest using at least 4 connection points into the platform.

Making sure that the car is plumb and square, tighten the two top connections from the car to the sling.

Remove the gate switch(es) from shipping strap(s) and connect to the Z-bracket located on the bottom of the car platform.

# Traveling Cable Termination

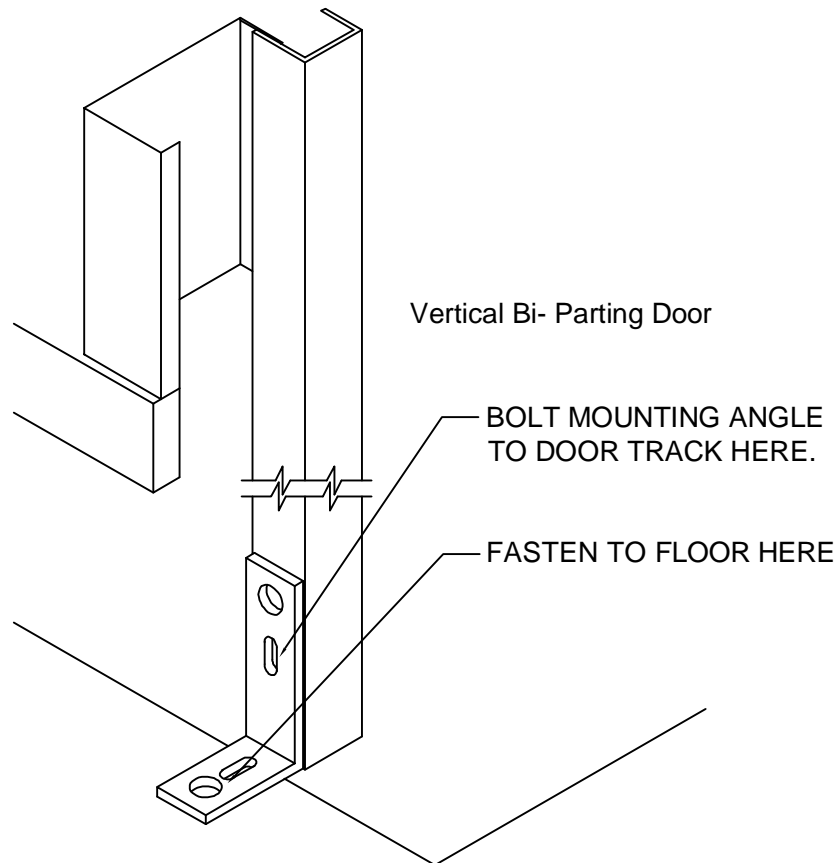
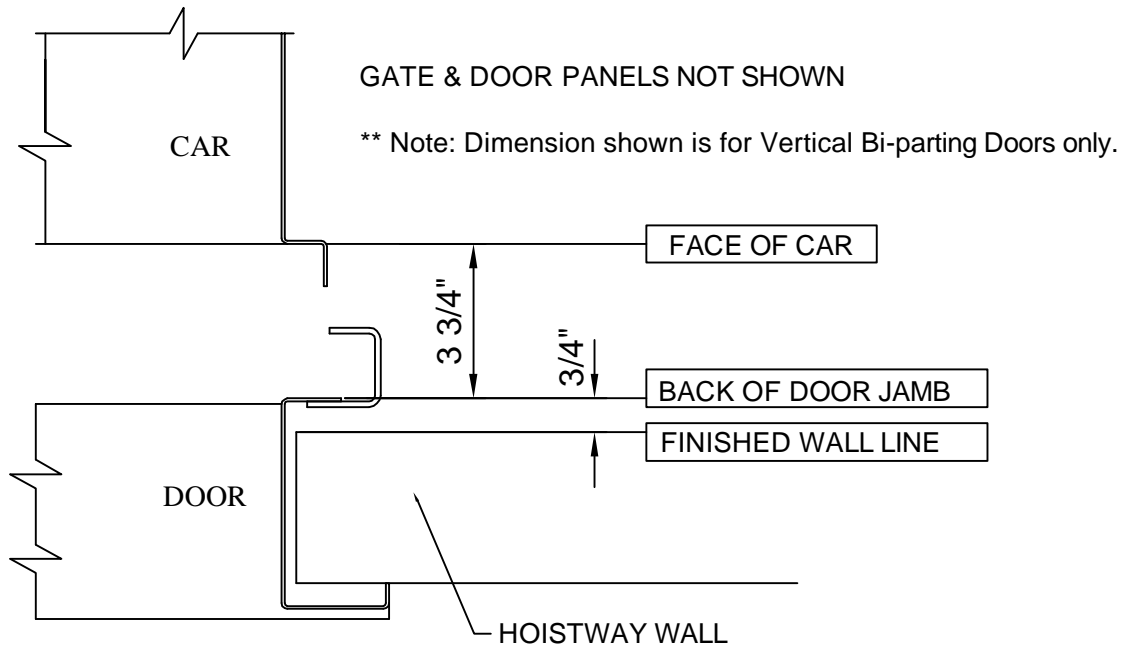




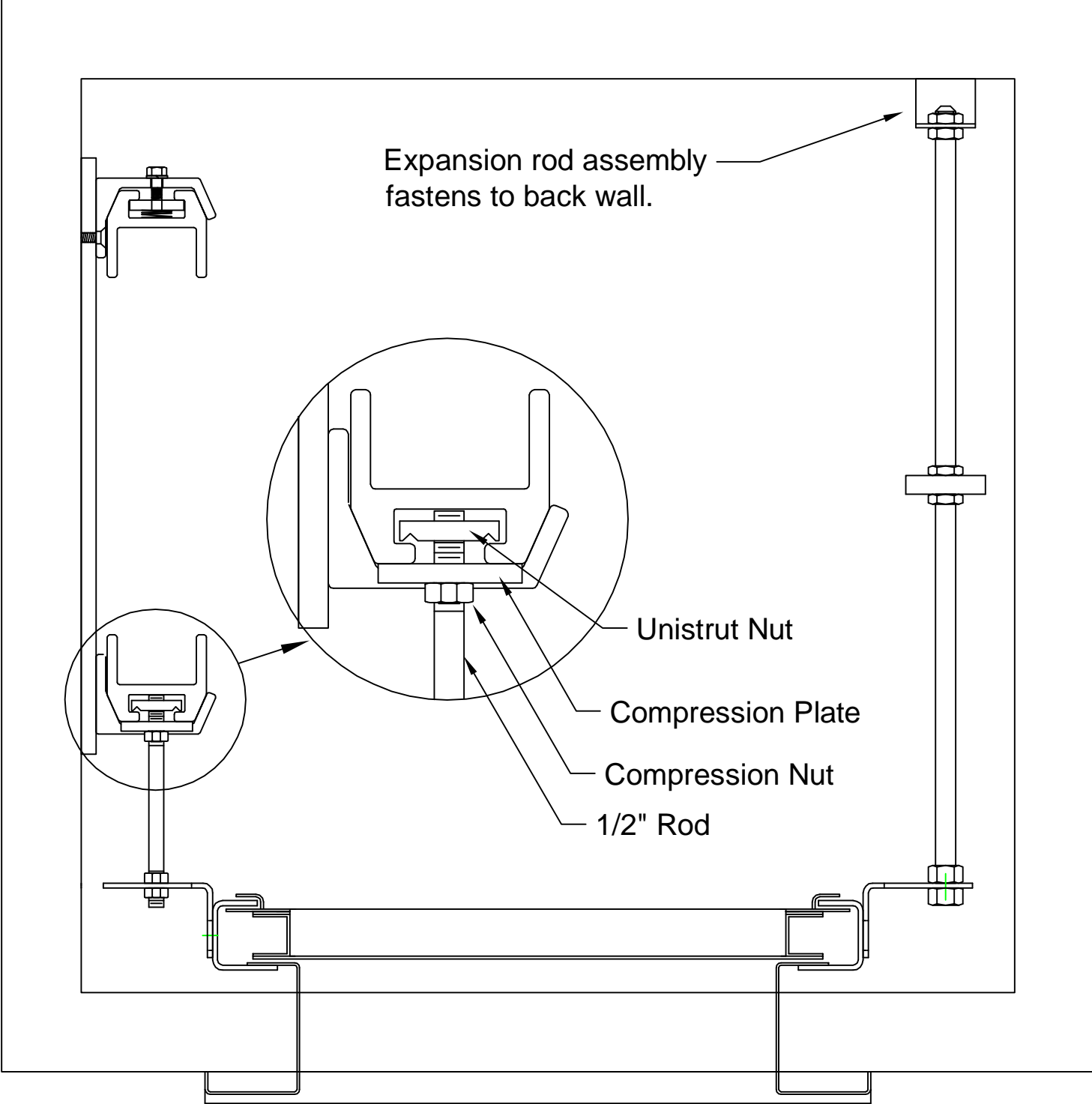
Move doors to their correct landing. Doors are marked as to their landing location. Doors are not always identical and may have opposite hand Interlocks or different wall thickness that preclude the doors from being interchanged with each other.

Mount the top end of the door using the door rods or brackets supplied.

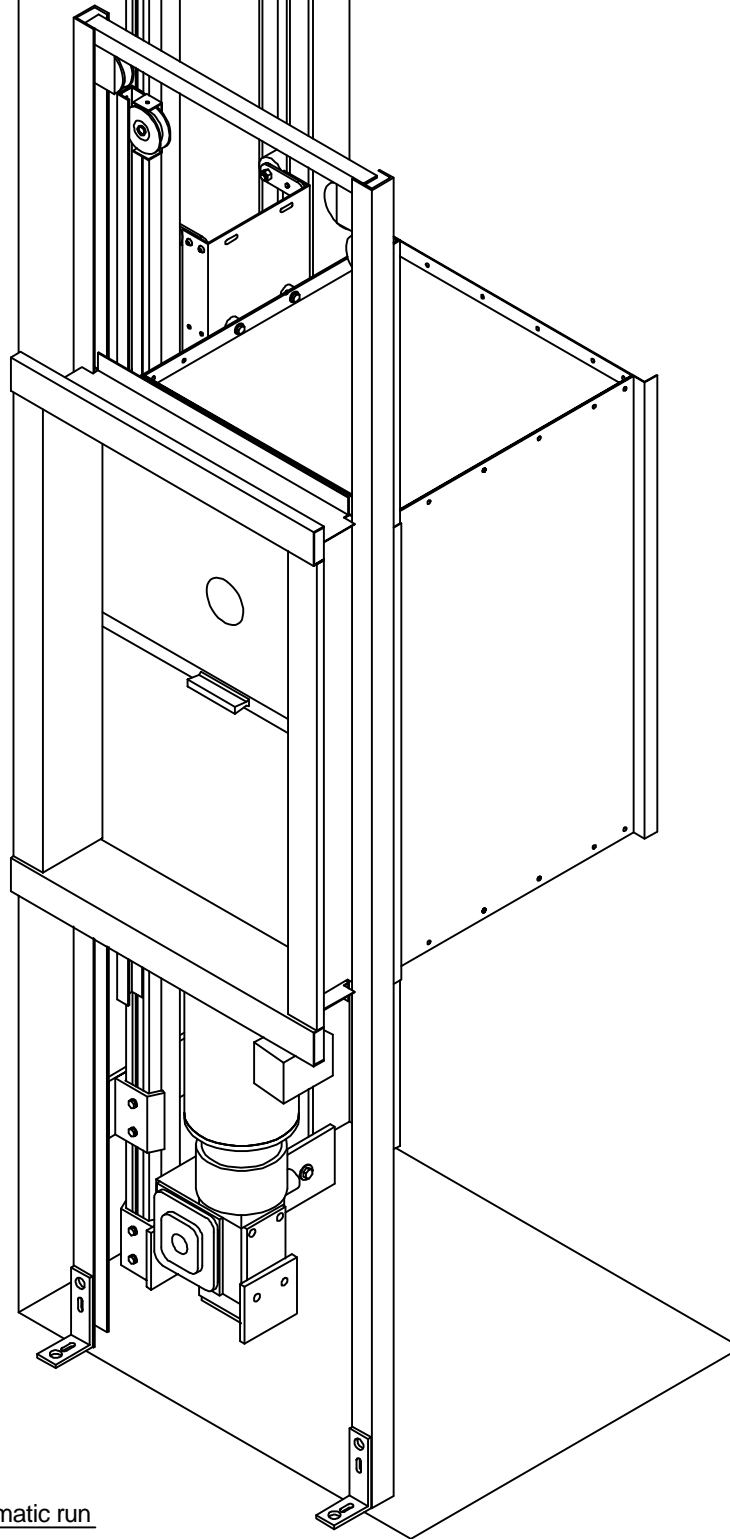
# Vertical Bi- Parting Door setting dimensions.



# Top of Door connection (Rail wall adjacent to Door)







Final Checks before automatic run

Verify that all limit switches are functioning correctly.

Verify that all door interlocks and access door switch are functioning correctly.

Check cable terminations.

Check for proper winding of cable on drums.

Check traveling cable to ensure a smooth loop. Check for any possible snag points.

Check operation of slack cable / safety switch device.