



**ELEVETTE  
MRL GEARED DRIVE  
With UC601 CONTROL SYSTEM  
(MACHINE ROOMLESS ELEVATOR)**

**MECHANICAL INSTALLATION  
INSTRUCTIONS**

**ELEVATOR INSTALLERS MUST INSTALL THIS ELEVATOR  
AND ALL ITS COMBINED EQUIPMENT TO COMPLY WITH  
ASME A17.1, N.E.C., AND ALL APPLICABLE NATIONAL,  
STATE, AND LOCAL CODES.**

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## **IMPORTANT – FAMILIARIZE YOURSELF WITH THESE INSTRUCTIONS**

### **THIS ELEVATOR MUST BE INSTALLED TO COMPLY WITH ALL STATE, LOCAL, AND NATIONAL CODES, INCLUDING BUT NOT LIMITED TO ASME 17.1 AND THE N.E.C.**

#### **PERSONAL SAFETY**

1. Installers are cautioned that there are many potential hazards involved in the installation of elevators. Since any accident cannot only be disabling but may be fatal, installers are reminded of the hazards involved.
2. Installers should never work alone. It is true that there is safety in numbers. The elevator installer should be always aware of his fellow installer's presence and the area in which he is working.
3. Installers should be properly clothed before starting the installation. Wearing of loose clothing should be avoided. Keep all buttons, particularly the ones on cuffs, buttoned.
4. Installers should always be aware of the fact objects may fall in a hoistway at any time, and proper head protection should be worn.
5. Shaft doors should be locked or nailed shut any time an area is left unattended, and door interlocks are not installed and operating correctly.
6. Extreme caution must be taken when working overhead, in the pit, or around an elevator or platform when power is applied.
7. Power should be removed from the controller and operating systems when any electrical work is accomplished.
8. Installers should never enter an elevator pit when it contains water, or work in a machine space that has wet surfaces. Accidents from electric shock have occurred under these conditions, sometimes fatal.
9. All installers should read and familiarize themselves with a current elevator safety handbook prior to installation (available through [Elevator World](#)).
10. Turn power off when making any adjustments to elevator at main disconnect.
11. Installers should never place themselves in a position where they may be harmed, such as between shear points, under heavy objects, etc.
12. When repairing equipment you do not understand or are not familiar with, consult the manufacturer.

**NOTE:** All statements, technical information, and recommendations contained herein are based on data believed to be reliable, but the accuracy or completeness thereof is not guaranteed

## Recommended Tool List for MRL Installation

- Plumb bob
- Chalk line
- Torpedo level
- 2 ft & 4 or 6 ft level
- Tape Measure
- Socket & Wrench Set (with sizes up to 15/16")
- 12" Adjustable Wrench (that opens at least 1-1/4")
- 5/16" diameter X 6" long drill bit (Pre-drill lags)
- Drill (1/2" chuck)
- Hammer drill
- Impact driver or drill driver (Hi-torque)
- Hammer
- 1/2" concrete bit
- (2) 6" C-clamps (to assemble weldment splices)
- Rubber mallet or dead blow hammer
- (2) 18" quick clamps (to assemble weldment splices)
- Needle nose pliers
- Wire rope cutters - 1/4" diameter rope (traction drive units only)
- Side cutters
- (2) Vise grip 11R clamps (to hold counterweight sling)
- Wire strippers
- Various screw drivers (Phillips and straight blade)
- Utility knife
- Conduit cutter (If rigid conduit is required by local codes)
- Conduit bender (If rigid conduit is required by local codes)
- 4 foot step ladder (250-300 lb. capacity)

## Materials Needed for Installation (not supplied by INCOA)

- 1/2" x 4 1/2" concrete anchors - (2) for chain and (3) for traction
- Shim material for under base and behind wall brackets to make level
- 1/2" conduit (check local codes)
- 1/2" flexible conduit (check local codes)
- 3/4" conduit (check local codes)
- 3/4" flexible conduit (check local codes)
- 1/2" conduit fittings (check local codes)
- 3/4" conduit fittings (check local codes)
- 1/2" conduit clamps
- 3/4" conduit clamps
- screws for clamps
- Wire-nuts
- Black tape
- Screws to hold main controller in wall
- Screws/anchors to hold shaft box on hoistway wall
- Wire ties
- Main disconnect boxes for 220VAC and 110VAC (should be provided by electrician)



### CAUTION

Before the elevator installation is started, verify the following:

- Hoistway size – Does the actual width and depth of the hoistway agree with the dimensions on the approved shop drawing?
- Floor to Floor Distance – Measure the distance from the bottom floor to the top floor.
- Overhead and Pit – Does the overhead and pit depth agree with the shop drawing?

**If any of these measurements differ from the shop drawing, contact Inclinator before proceeding with the installation.**

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## COUNTERWEIGHT GUIDE RAIL INSTALLATION

Determine where the centerline of the counterweight (cwt) guide rail should be located in the hoistway. This measurement can be found on the shop drawing or determined by adding half the car width to the running clearance, (car width/2 + running clearance = centerline location of guide rail). Where applicable, measure from a gate-side wall. In the hoistway, mark the guide rail location 24" from the top of the hoistway and 12" above the pit floor. Drop a plumb bob to see if the centerlines are the same. Adjust if necessary. Mark the rail centerline location (in the hoistway) using a chalk line.



### CAUTION

**It is important that the CWT guide rail frame assembly be installed in the hoistway straight and plumb.**

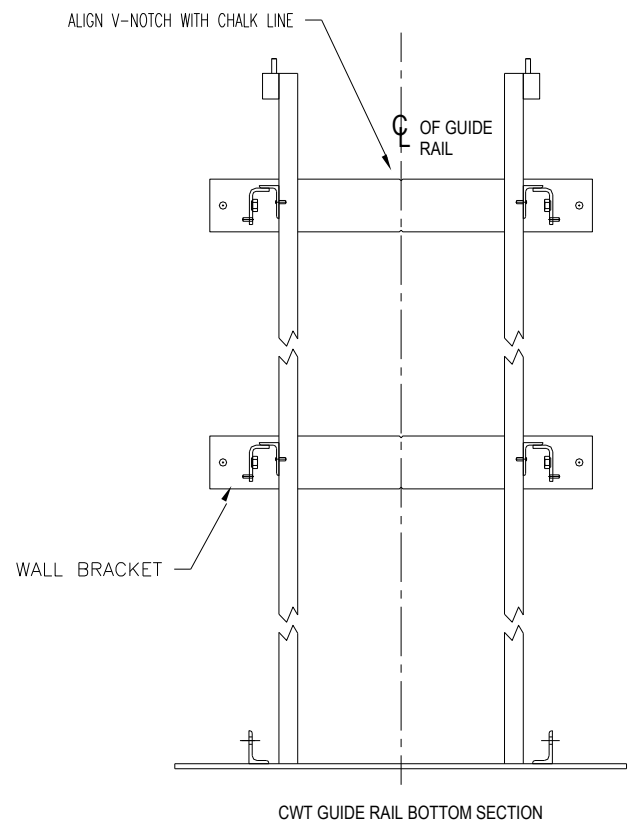
#### Installation of Section One (Bottom Section)

1. Locate the bottom weldment with base plate.
2. The centerline ( $\sphericalangle$ ) of each wall bracket is marked with a V-notch groove.
3. Line up  $\sphericalangle$  of rail wall brackets and hoistway  $\sphericalangle$ . Check for plumb side to side, shim base plate if necessary.
4. Pre-drill 5/16" diameter pilot holes for mounting lags. (Two per wall bracket)
5. Install two 1/2" x 4" lags in each wall bracket.
6. Check for plumb front to rear. Shim out section if necessary.
7. Back top wall bracket two lags out 1/4" to set next rail section.

**Do not install base plate anchors now.**

#### Installation of Section Two (All Intermediate Sections)

1. Locate the second guide rail weldment by matching splice label numbers. (Splice 1 to splice 1).

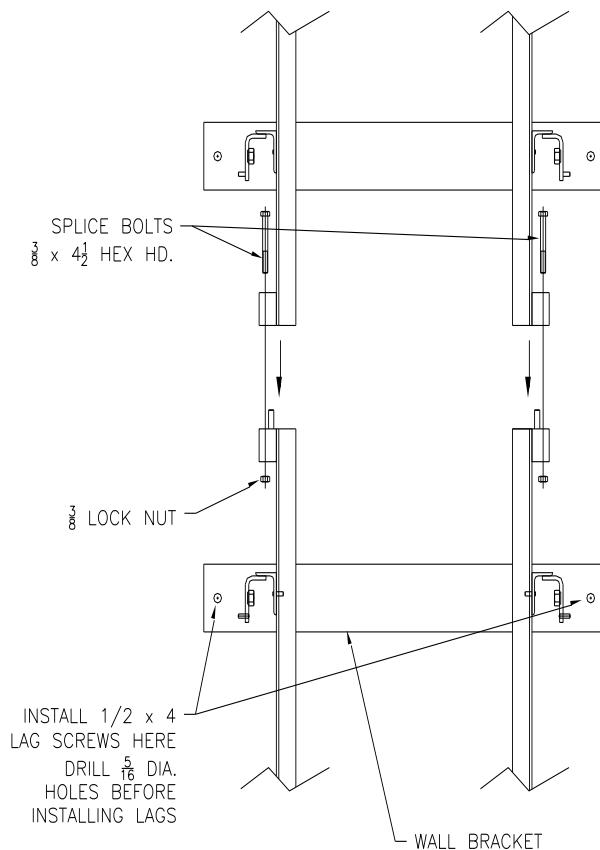




## CAUTION

It is very important that intermediate sections be installed in proper order.

2. Lift section up into place.
3. Align second weldment over the dowel pins from the first weldment and start inserting pins.
4. Use a 18" Quick Clamp on each side of splice block draw splices together evenly.
5. Install and tighten both 3/8-16 x 4 1/2" long grade 8 splices bolts and lock nuts.
6. Check for plumb both side to side and front to rear. Shim out section if necessary.
7. Pre-drill 5/16" diameter pilot holes for mounting lags. (Two per wall bracket)

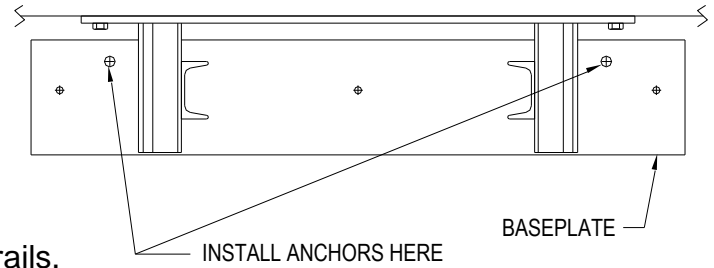


8. Install two 1/2" x 4" lags in each wall bracket. (Leave top two lags out 1/4", and tighten top two lags of lower section)
9. Check for plumb again. **Note:** Install all intermediate sections in this same manner.

### Installation of Last Section (Top Section)

1. Locate the top weldment with large top plate
2. Lift section up into place.
3. Align top weldment over dowel pins from the previous weldment and start inserting pins.
4. Use a 18" Quick Clamp on each side splice block and draw splices together evenly.

5. Install and tighten both 3/8-16 x 4 1/2" long grade 8 bolts and lock nuts.
6. Check for plumb both side to side and front to rear. Shim out section if necessary.
7. Pre-drill 5/16" diameter pilot holes for mounting lags. (Two per wall bracket)
8. Install and tighten two 1/2" x 4" lags in each wall bracket. (Tighten top two lags of lower section)
9. Check for plumb again.
10. Install two- 1/2" dia. concrete anchors in base plate holes as shown at right.



**Important** – Install anchors before installing T-rails.

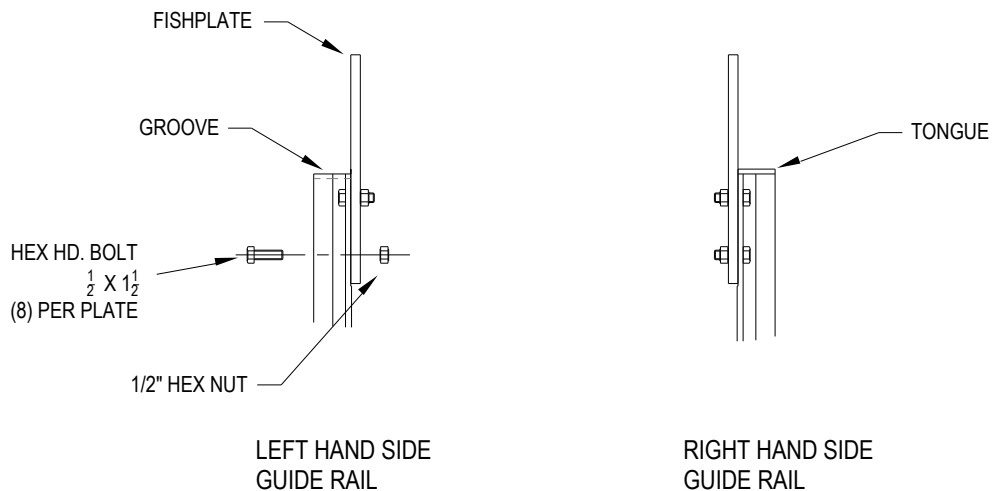
## T-RAIL INSTALLATION

Before installing, remove grease from the surfaces of each rail.

**Note:** Each Inclinator MRL elevator is supplied with a combination of full length (10 ft) T-rails and two or four modified rails (less than 10' in length). The top two rails can be identified by having a saw cut end with (2) 9/16" diameter holes located 5/8" from the end of the rail. The bottom (2) T-rails may be full length (10') rails or modified rails. If there are two additional shortened rails with (2) 9/16" diameter holes located 1 3/4" from the cut end, these are to be used as the bottom T-rail sections. If full length rails are to be used for the bottom, a 1/4" thick spacer has been added to the right hand side of the cwt guide rail base-plate where the 'groove' end of the T-rail is set. Also, if full length rails are to be used as the bottom sections – two shims are provided and should be placed between the back of the T-rail and the mounting angle on the base-plate.

### Installation of Bottom T-Rail Sections

From the above information, determine which rails are to be used. Install fish plates on top end of the t-rail sections as shown below, leaving the four bolts and nuts finger tight to adjust after next rail is installed.

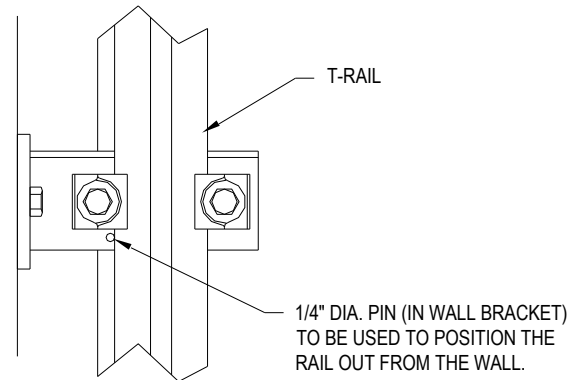




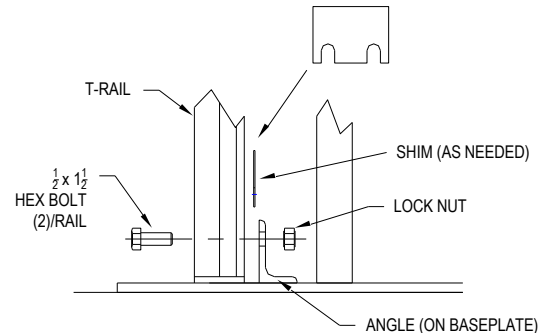
1. Install guide rail clips with  $\frac{1}{2}$ " x  $1 \frac{1}{4}$ " long bolts on holes toward wall from top to bottom on both left and right sides. (leave loose)



2. Lift left side bottom section of T-rail into place, slide flange under guide rail clips and hold in place.
3. Install guide rail clips on front side to hold the T-rail, leave bolts finger tight.
4. Push T-rail back to the pin on wall brackets.
5. Check for plumb in both directions. Shim out rail if necessary.
6. If plumb, tighten all guide rail clips for that rail section.



7. Install (2)  $\frac{1}{2}$ " x  $1 \frac{1}{2}$ " bolts with lock nuts into T-rail bottom holes and base plate angle. If bottom T-rails are full length rails, place shim between rail and angle.
8. Install right side bottom T-rail section in same manner.



### ***Installation of Intermediate T-Rail Sections***

Note: All intermediate t-rails are full-length rails (10 ft long).

1. Install fishplates on one end of intermediate T-rail sections (remember the machined groove end is up on the left side rails and the tongue is up on the right side). Leave the four bolts and nuts finger tight to adjust after next rail is installed.
2. If not already done previously install guide rail clips with  $\frac{1}{2}$ " x  $1 \frac{1}{4}$ " bolts on holes toward wall from top to bottom on both left and right sides. (leave loose)
3. Lift first intermediate left side section of T-rail into place, slide flange under guide rail clips back onto pins and over splice.
4. Slide intermediate section tongue into lower section groove.
5. Install guide rail clips on front side to hold the T-rail, leave bolts finger tight.

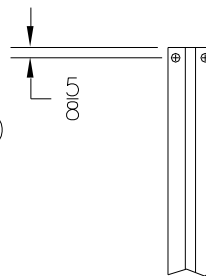
6. Align fishplate (splice plate) and bolt holes, and install four bolts and nuts, leave loose.
7. Push T-rail back against pin on wall brackets.
8. Check for plumb in both directions. Shim out rail if necessary.
9. If plumb tighten all guide rail clips for that T-rail section.
10. Tighten eight fishplate (splice plate) bolts at lower splice.

Note: Install first intermediate right side T-rail section in same manner. If other intermediate sections are required install them using the above procedure.

### ***Installation of Top T-Rail Sections***

NOTE:

THE TOP T-RAIL WILL HAVE A SAW-CUT END WITH TWO (2) DRILLED HOLES LOCATED AS SHOWN.

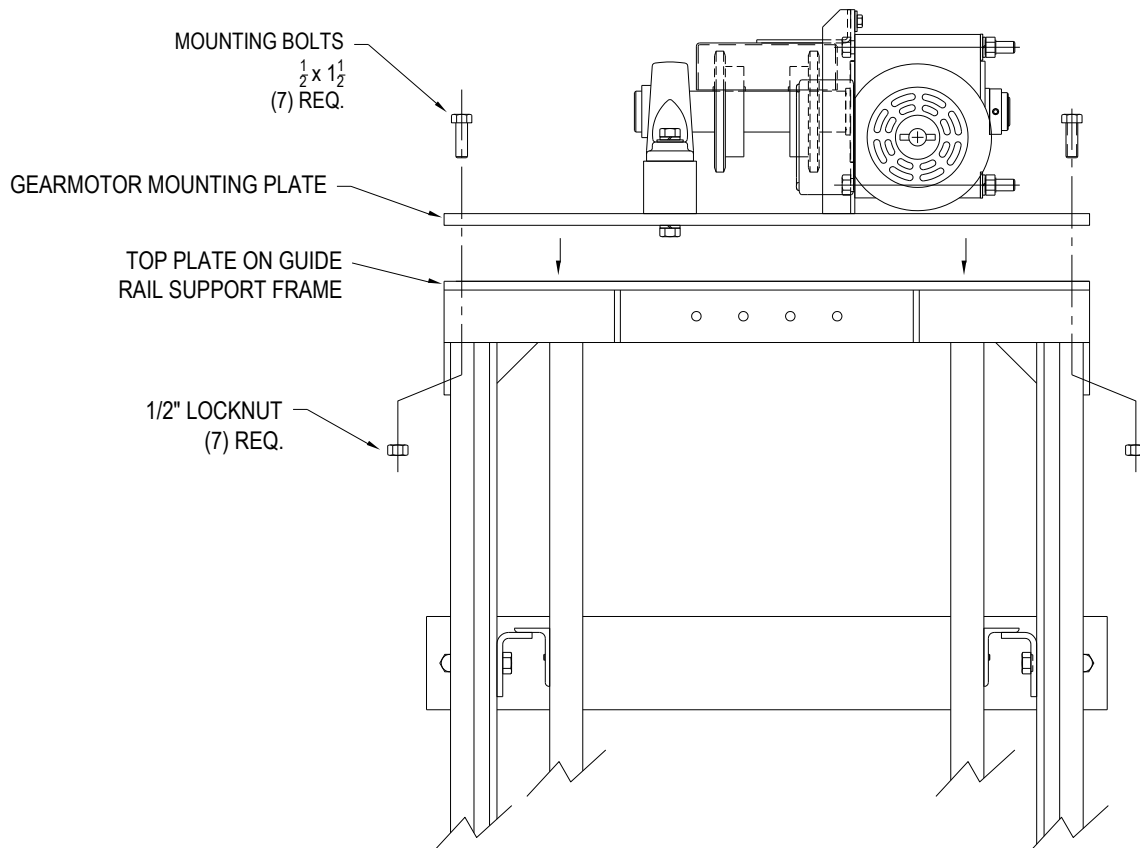


1. If not already done previously install guide rail clips and  $\frac{1}{2}$ -13 x  $1 \frac{1}{4}$ " bolts on holes toward wall from top to bottom on both left and right sides. (leave loose)
2. Lift top left side section of T-rail into place, slide flange under guide rail clips back onto spring pins and over splice.
3. Slide top section tongue (or groove) into lower section groove (or tongue)
4. Install guide rail clips on front side to hold the T-rail, leave bolts finger tight.
5. Align fish plate (splice plate) and bolt holes.
6. Install four splice bolts and nuts, leave loose.
7. Push T-rail back against spring pins on wall brackets.
8. Check for plumb in both directions. Shim out rail if necessary.
9. If plumb tighten all guide rail clips for that T-rail section.
10. Tighten eight fish plate (splice plate) bolts at lower splice.
11. Insert (2)  $1/2$ " x  $1 \frac{1}{2}$ " bolts with flat washers through T-rail top holes and into two top plate slots, install nuts and tighten.
12. Install top right side T-rail section in same manner.

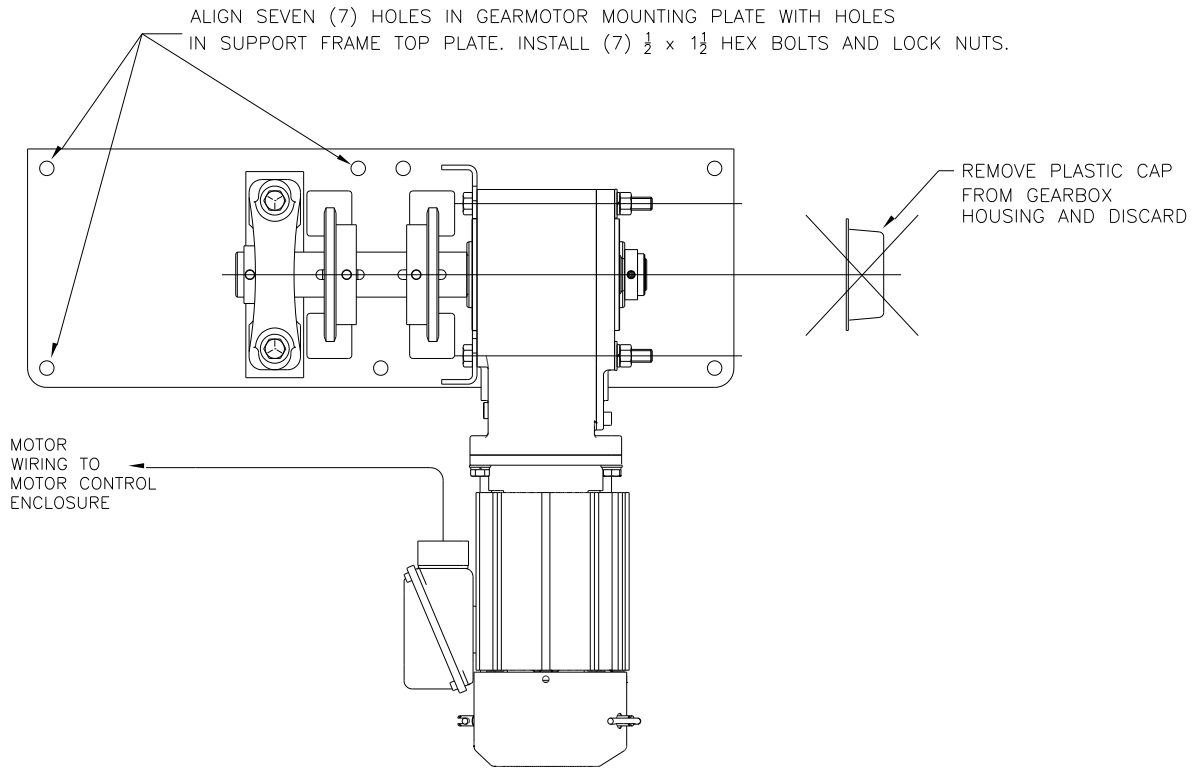
## INSTALL CHAIN DRIVE MOTOR

**CAUTION** – The gearmotor assembly is heavy. Be careful when lifting and handling.

1. Locate Gearmotor and mounting hardware, (7) 1/2" x 1 1/2" Hex bolts & locknuts.
2. Set Gearmotor onto cwt guide rail weldment top plate.



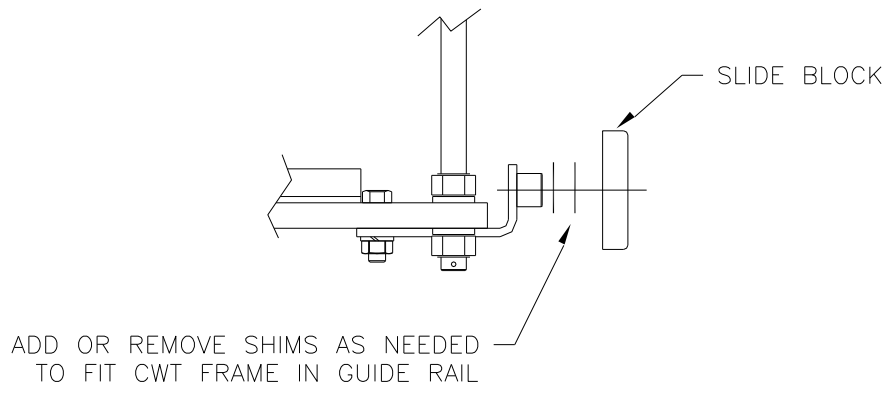
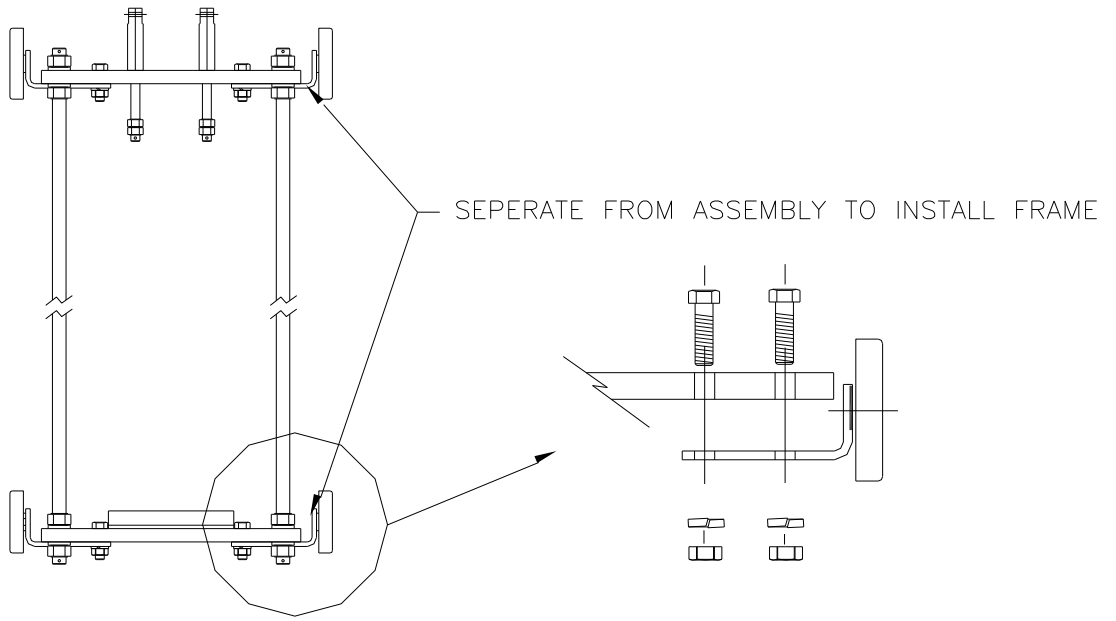
3. Align seven 1/2" diameter mounting holes. One hole at each corner and three holes in the center of the plate.
4. Insert seven 1/2" x 1 1/2" bolts down through these holes, install 1/2" locknuts and tighten.

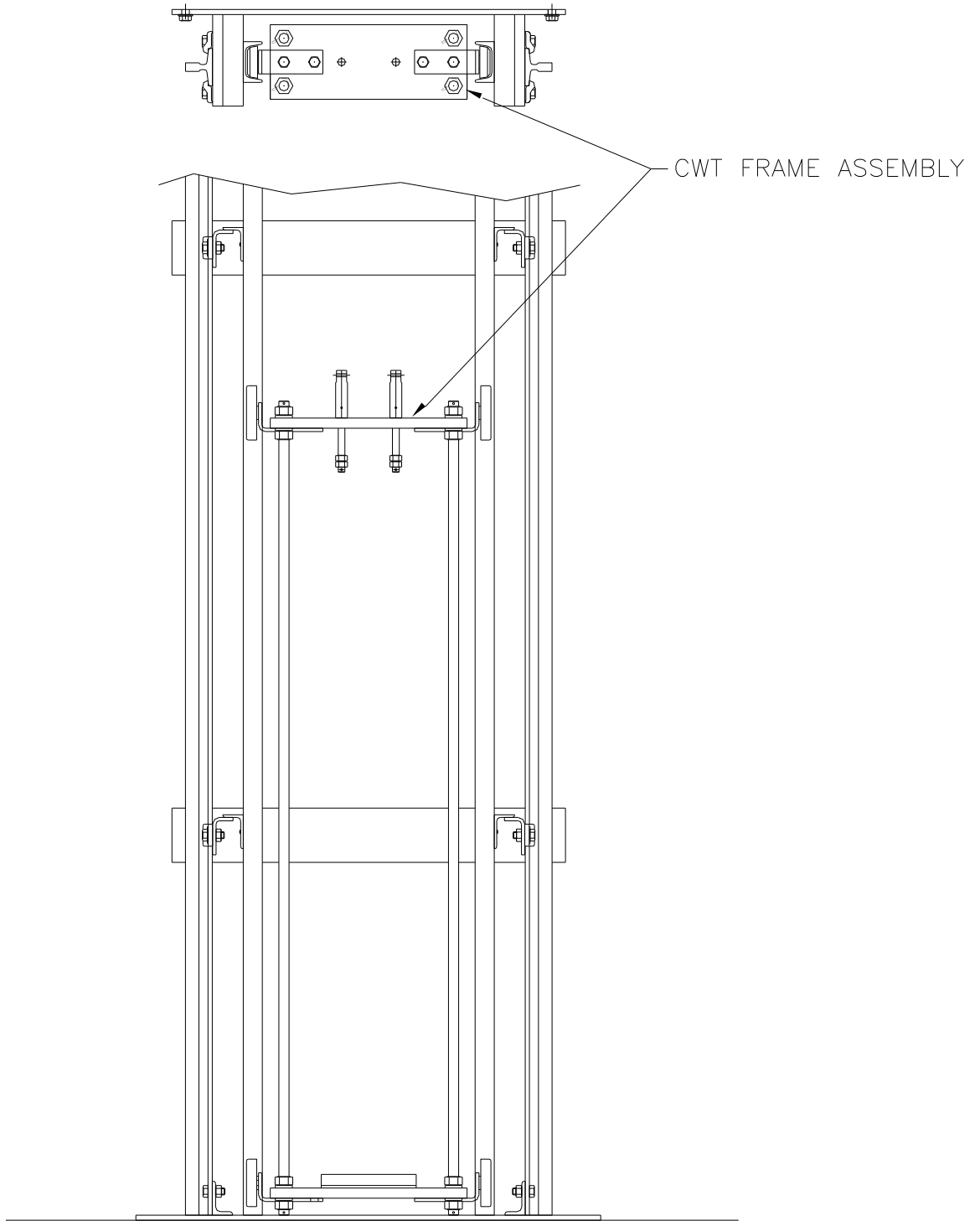


## INSTALLATION OF COUNTERWEIGHT FRAME ASSEMBLY

1. Locate the CWT Frame and lay it on the floor.
2. Remove the right hand side top and bottom slide block assemblies (as shown below).
3. Lift CWT Frame into bottom counterweight guide rail weldment by positioning the left side slide blocks into the C-channel groove and rotating the CWT Frame right side into place.
4. Reinstall the right hand side top and bottom slide block assemblies.
5. Verify that the CWT ASSY slides freely up and down the entire length of the counterweight guide rail assembly.

**Note:** Side to side play should not exceed 1/8" throughout the entire length of travel. Shims are provided to adjust the slide block width.



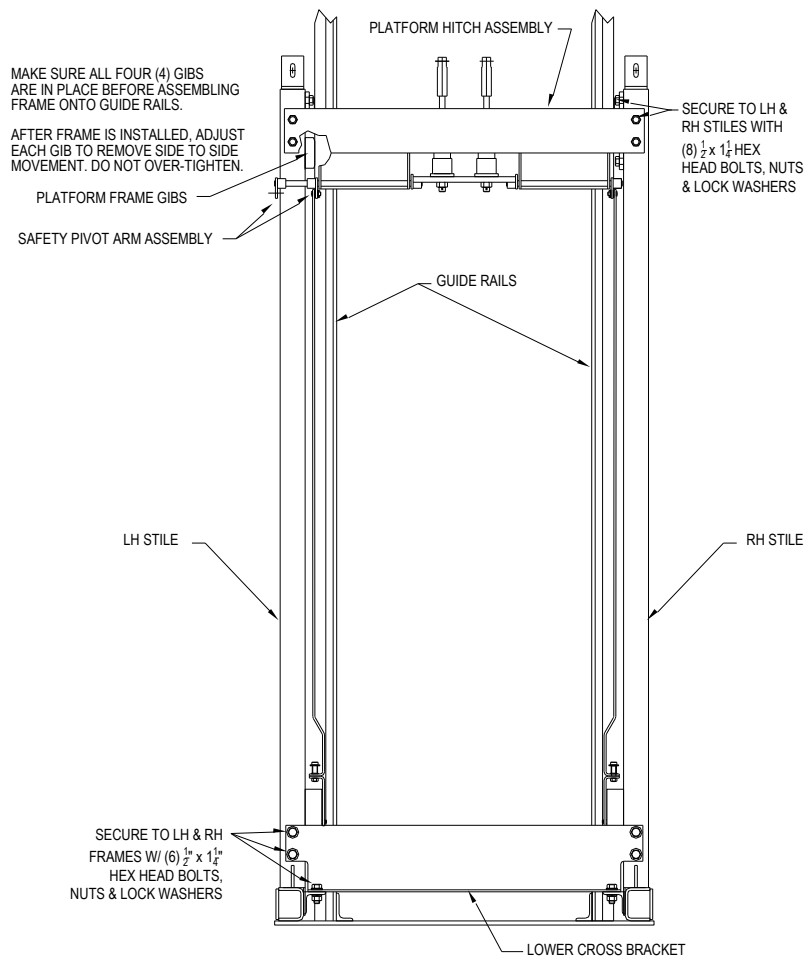


## INSTALLATION OF SLING ASSEMBLY

Locate all sling assembly pieces and hardware. (LH & RH Stile, Hitch Assembly, Lower Cross Bracket and Plank Extension Frame).

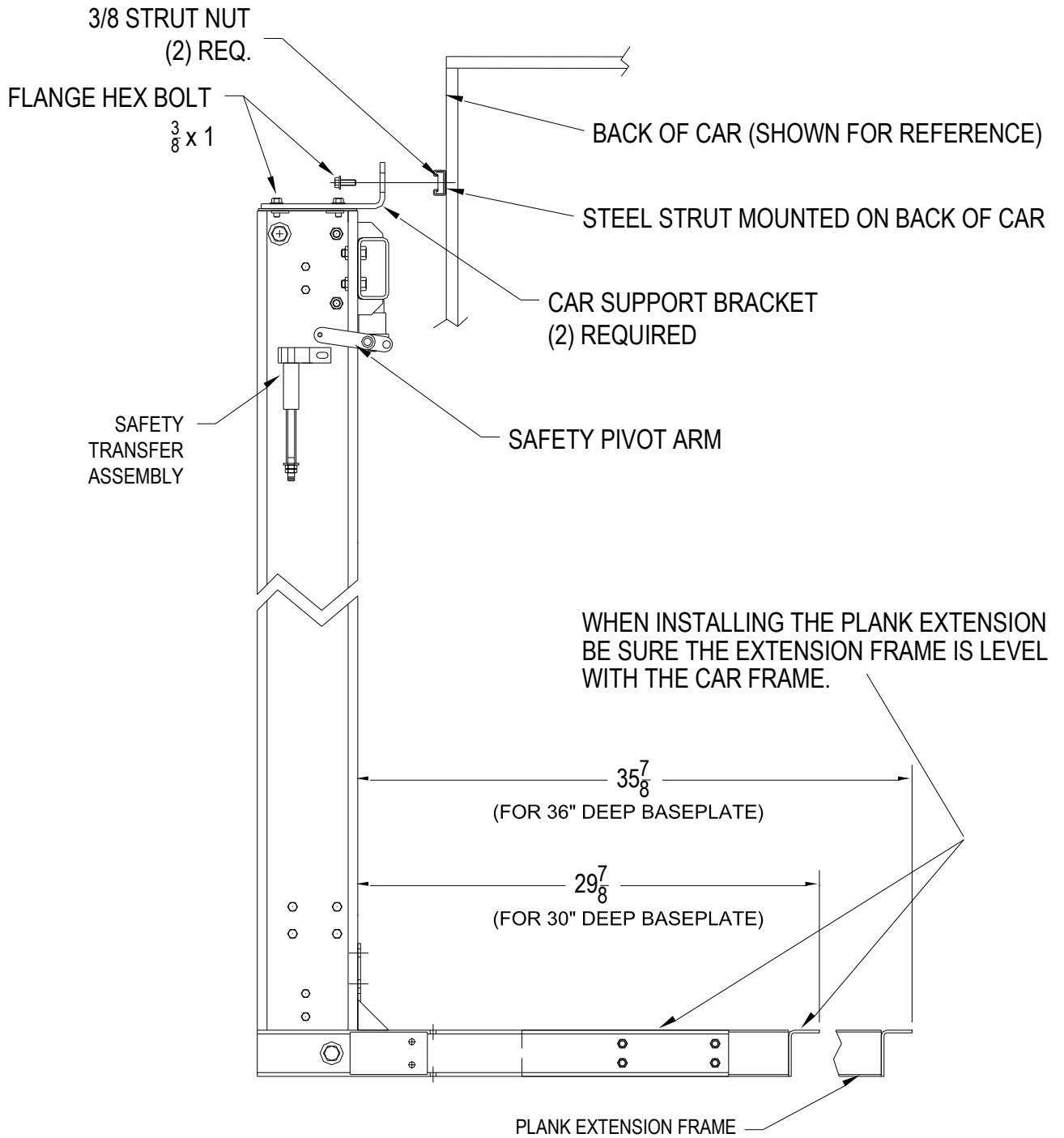
1. Move the LH stile into the hoistway. Locating top roller wheel behind tee rail and bottom roller wheel in front of tee rail. The top “U” shape and bottom safety block groove should be positioned around the machine surface of the T-rail.
2. Lift the RH sling into place positioning it in the same manner as above.
3. Install the lower cross bracket using six ½-13 x 1 1/4” hex bolts, nuts and lock washers leaving finger tight at this time.
4. Next install platform hitch assembly using four ½-13 x 1 1/4” hex bolts, nuts and lock washers through brace plate and into sling. Then install four ½ –13 x 1 ¼” hex bolts, nuts and lock washers with bolt head inside the tube of the cross brace. Leave all bolts and nuts finger tight.
5. Install the plank extension aligning appropriate holes according to base pan size. Insert and finger tighten eight 3/8–16 x 1 ¼” hex bolts, nuts and lock washers in these holes.
6. Check for level and plumb. Tighten all bolts and nuts.

Note: Adjust bottom roller eccentrics and hook up safety linkage after suspension chain is installed.



**SLING ASSEMBLY, FRONT ELEVATION VIEW**



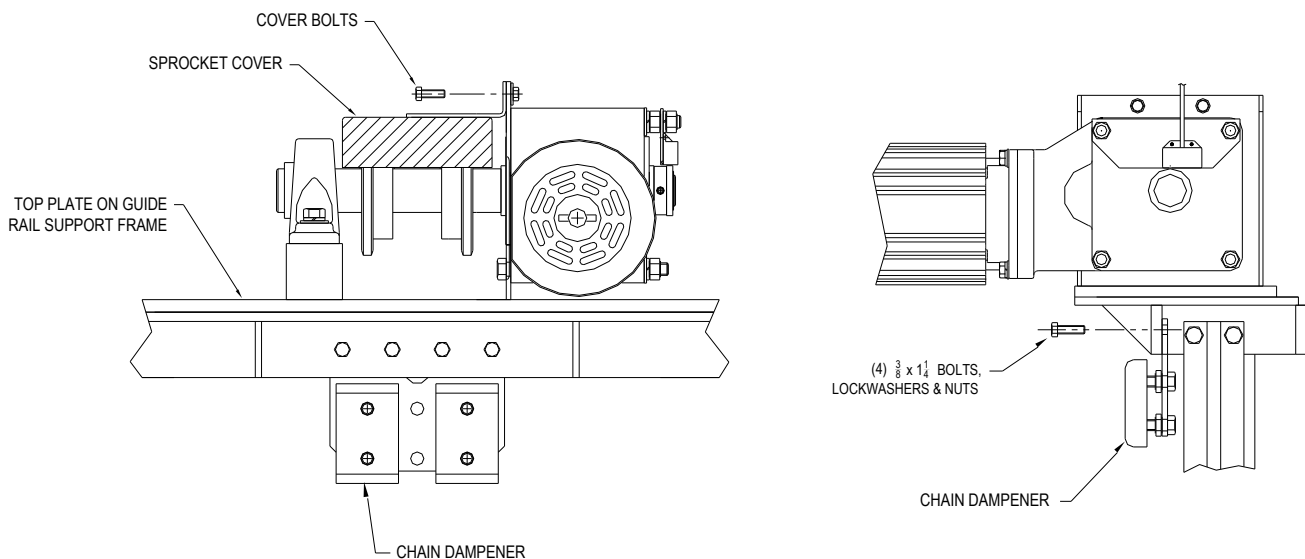


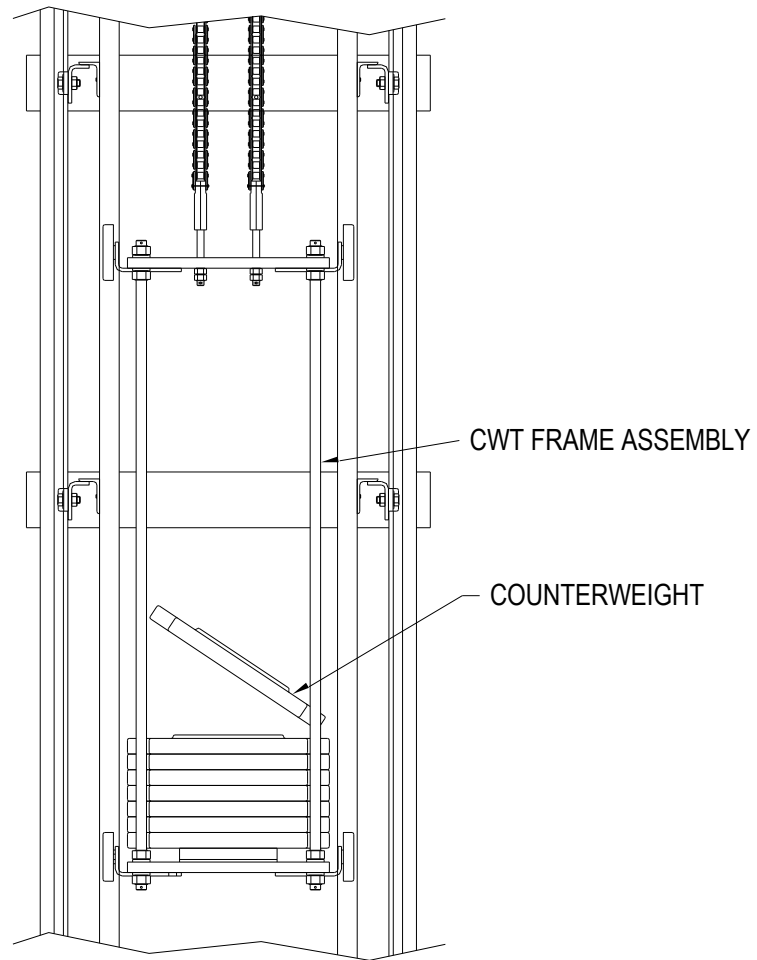
**SLING ASSEMBLY, LEFT HAND SIDE ELEVATION VIEW**

## SUSPENSION CHAIN INSTALLATION

1. Remove the sprocket cover located on the drive assembly.
2. Install the chain dampener assembly using four (4)  $\frac{3}{8}$ " x  $1\frac{1}{4}$ " hex bolts, lock washers and nuts (see drawing at bottom of page). Note that the dampener plate is mounted behind the cross bar on the top weldment.
3. Take the roller chain to the top of the hoistway and lower one end of each chain to the CWT frame. Place the chains over the sprockets and let the other end of the chains drop down toward the car sling. Make certain the ends of the chain are even with one another.
4. Use two (2) connector links to attach the chains to the CWT frame. (Do not install counterweights at this time). Use the emergency lowering hand-crank to raise the CWT frame enough to allow the other end of the chain to be attached to the car sling. Use two (2) connector links to attach the chains to the car sling. Be certain all connector link spring clips are properly installed.
5. Re-install the sprocket cover.
6. After power is available, (or using the hand-crank) lower the CWT frame and add the counterweight (see drawing on page 17). When all the weight is on the frame, remove each shaft clamp (located at the top of each  $\frac{3}{4}$ " diameter threaded rod) and allow the two (2) plates to lower onto the top of the weights. Re-install the clamps on top of the two plates and tighten.
7. Adjust the guide blocks on the chain dampener assembly so that they lightly touch the chains.

**Important:** Make adjustments as necessary to get equal tension on the suspension chains (on both the car side and CWT side of the chain) before the car is installed.

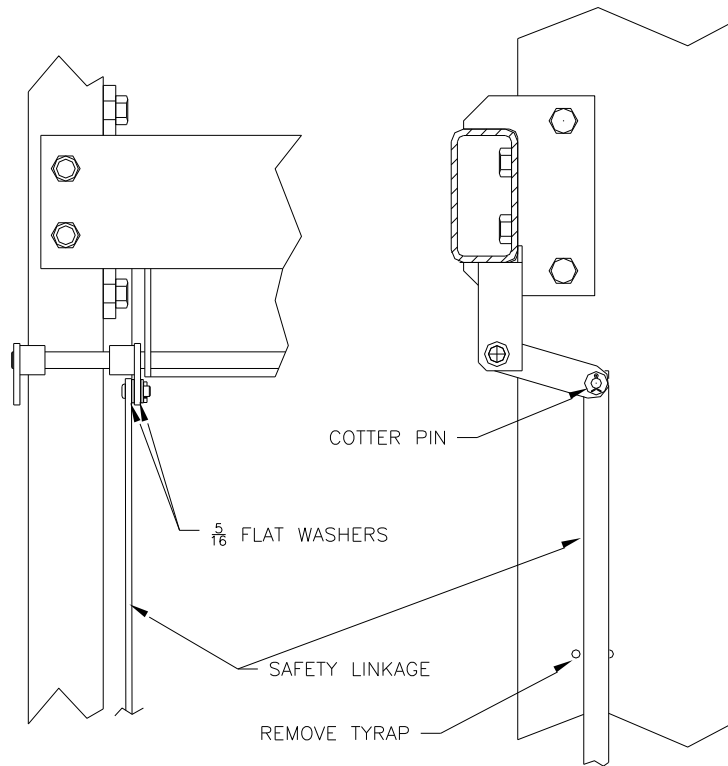




**ADDING WEIGHTS TO COUNTERWEIGHT FRAME**

# ATTACH SLING SAFETY LINKAGE AND ADJUST ROLLER ECCENTRICS

## Hookup Sling Safety Linkage



NOTE:

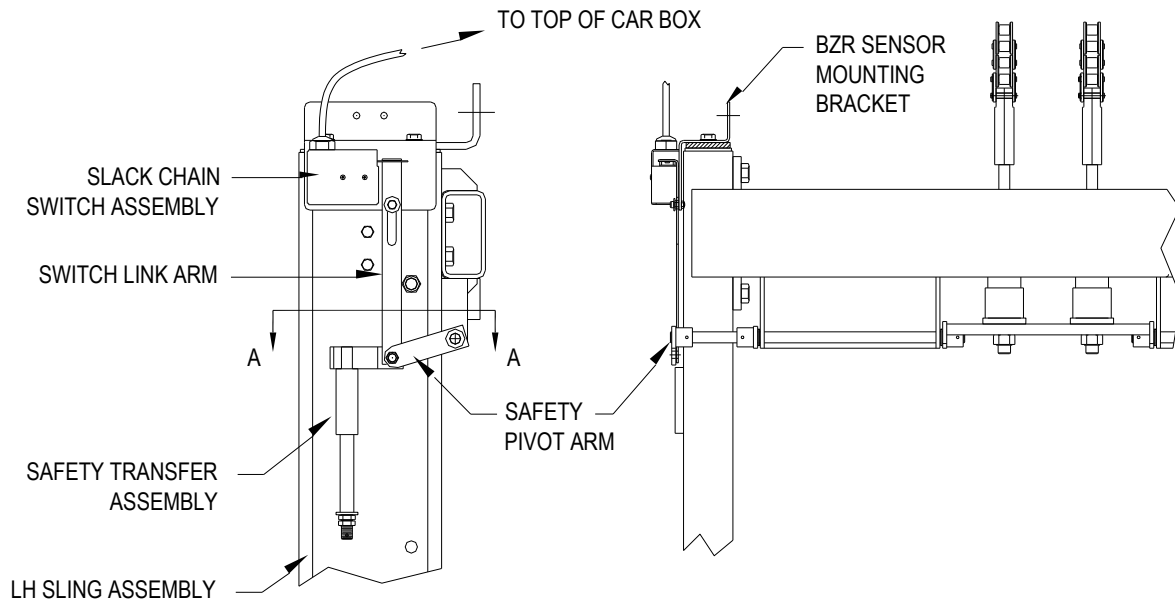
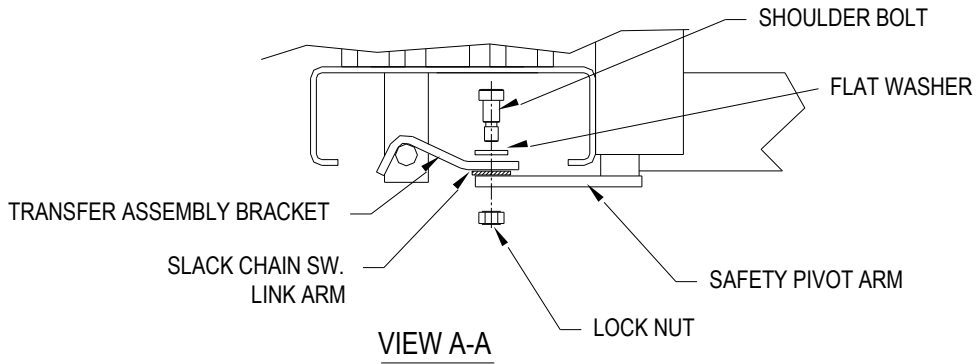
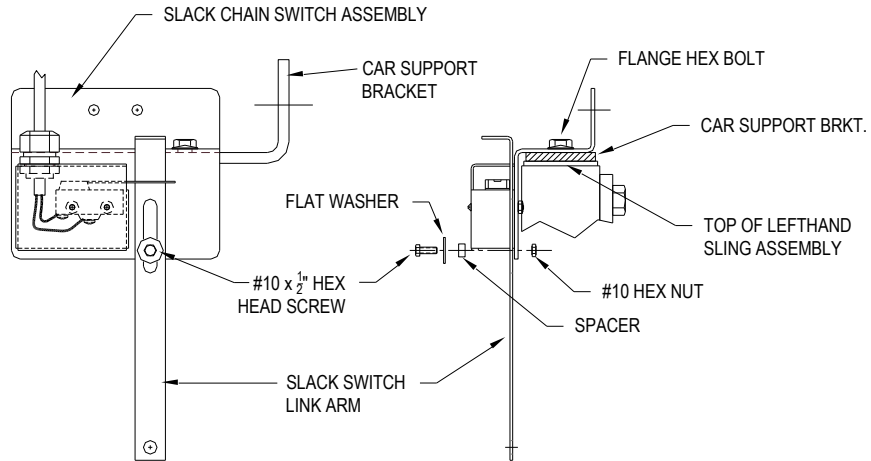
CONNECT THE TWO (2) SAFETY LINKAGE BARS AS SHOWN AFTER THE SUSPENSION CHAINS HAVE BEEN INSTALLED ALONG WITH THE CAR BASE PAN. ADDITIONAL WEIGHT ON PLATFORM FRAME MAY BE NECESSARY TO PREVENT THE SAFETIES FROM ENGAGING.

1. **CAUTION:** Remove tie-wraps that hold the safety linkage to the sides of the sling. Place first 5/16" flat washer over the clevis pin located at the top of linkage.
2. Insert safety linkage clevis pin into pivot-arm hole.
3. Place second 5/16" flat washer over clevis pin and insert cotter pin into pinhole and bend cotter pin to lock in place.
4. Do the same for other safety linkage assembly.

## SLACK CHAIN SWITCH INSTALLATION

1. On the top of the Left Hand Sling, remove the two flange hex bolts that hold the car support bracket to the sling (see picture on pg. 19). Place the Slack Chain Switch Assembly on top of the support bracket and re-install the two bolts.
2. Install the Slack Switch Link Arm onto the switch assembly bracket by removing the #10 x 1/2" hex head machine screw, flat washer and spacer, then re-installing through the slot in the link arm.
3. Attach the bottom end of the Slack Switch Link Arm to the Safety Pivot Arm and Transfer Assembly Bracket (as shown on pg. 19) using the shoulder bolt, flat washer and lock nut found on the safety pivot arm. After assembly, be certain the safety pivot arm is free to rotate and the slack chain switch link arm is free to move up and down to open and close the switch.

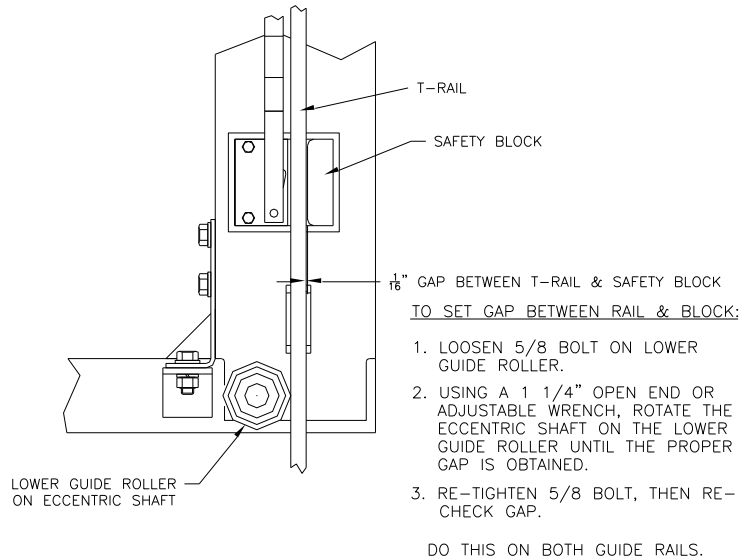
4. When the car is installed, route the slack chain switch wiring to the top of car box and connect to the appropriate terminals.



SLACK CHAIN SWITCH ASSEMBLY

## Adjust Sling Bottom Roller Eccentrics

1. First, raise the platform sling four to five feet above the pit floor.
2. At the lower left guide roller, loosen the 5/8" hex bolt to allow the eccentric axle to rotate.
3. Rotate sling bottom roller eccentric axle, so that there is approximately 1/16" between the guide rail and the safety block.



4. Tighten eccentric axle hex bolt to hold this setting. Recheck clearance after bolt is tightened.
5. Adjust right hand side eccentric roller using this procedure.

## Check Sling Safeties

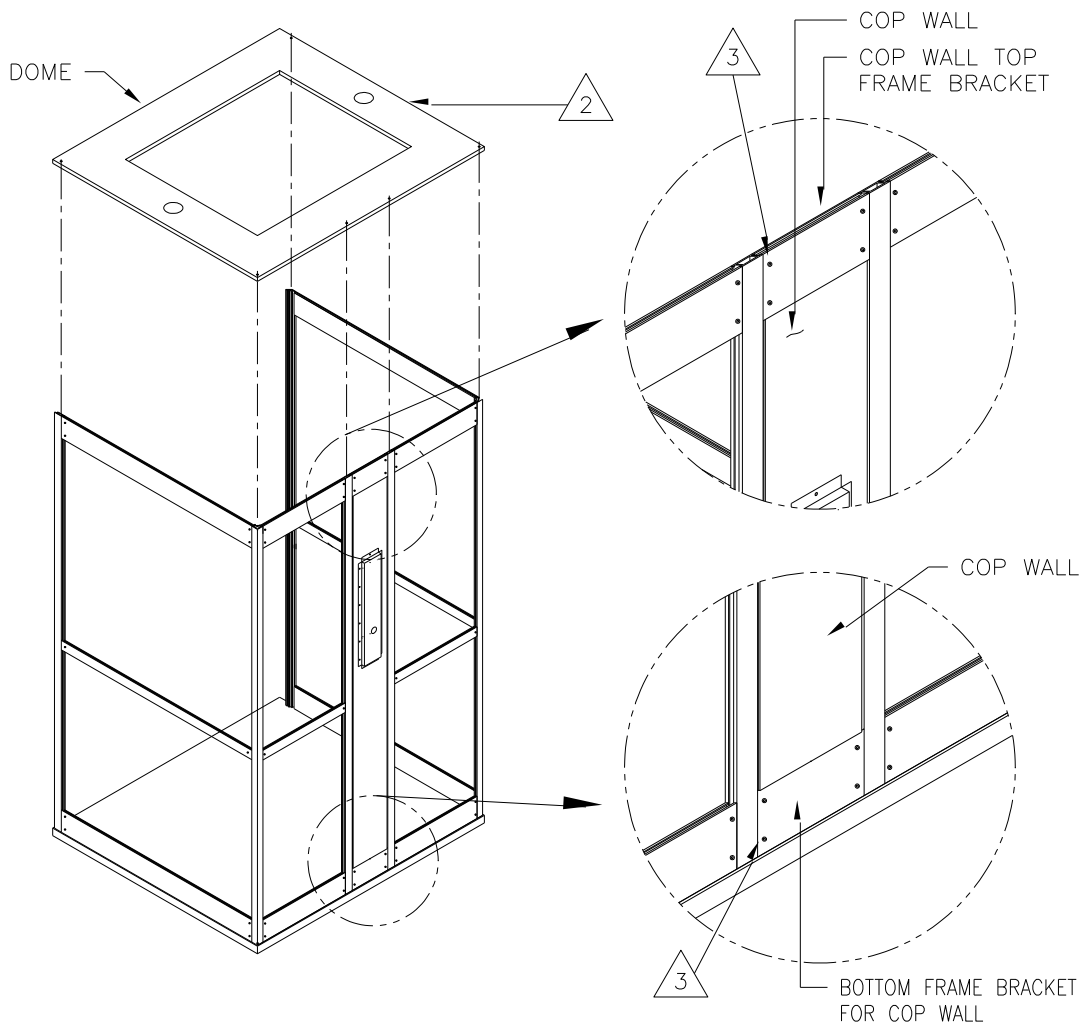
**Note:** When the motor electrical power is wired in, block the sling from moving down. Using the service operation pendant jog the motor in the down direction a small amount. This will slack the chains, and set the sling safeties. After verifying this, jog motor in up direction to disengage safeties and remove sling blocking.

## INSTALLING WOOD CAB

### NOTE:

- **If Car is shipped assembled, do not disassemble car until car is ready to be installed.**
  - Remove Gate Header attached to the side of the car for shipping.
  - When car is installed fasten the Header with the screws provided at the top of the car to cover up the edge of the gate track and plywood.
1. Remove the steel baseplate from the underside of the floorboard. Set the baseplate onto the plank and plank extension with the studs on the bottom side of the pan aligning with the slotted holes in the plank and extension. Use the hardware provided (5/16" flange nuts) to secure the pan to the car frame.
  2. Install the Plywood Floorboard onto the steel base, align the holes in the underside of the floorboard with the holes in the base, then secure with the lag screws that came with the car. Run the platform from the bottom to the top floor to insure there is adequate running clearance on all sides.
  3. Install rail side panel first. Secure with screws through the steel pan and floorboard. The car support brackets can be fastened to the back side of this wall, as shown on pg. 16, at this time.
  4. Install the adjoining panels by aligning the panel brackets above those on the fixed panel and then lower the panel so the brackets lock together. Fasten panels to floorboard with screws.
  5. Install the car dome and secure with screws.
  6. To install accordion gate, position the car at or slightly below floor level. Set the gate into the lower track and slide the upper track over the gate rollers then re-attach the upper track to the cab dome. Fasten the gate jamb panel to the steel return. If removed, install gate switch arm to gate leading post, make sure key aligns properly with the gate switch.

## INSTALLING 500 STYLE CAB



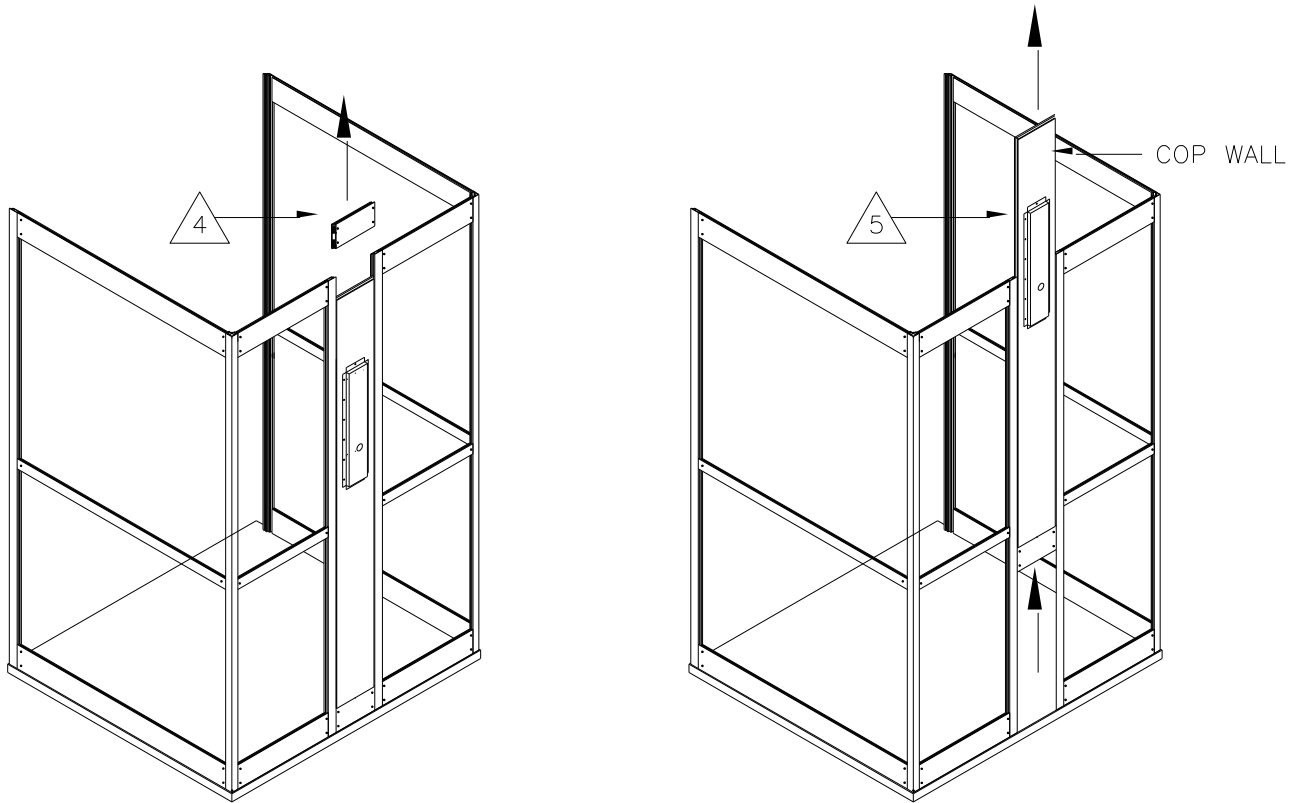
### 500 Cab DISASSEMBLY INSTRUCTIONS:

1. If a steel base is attached to the cab floor, remove it. If gates are installed, remove them.
2. Separate the dome from the cab walls by removing the  $\frac{1}{4}$ -20 x  $1\frac{3}{4}$ " Lg. Hex Hd. bolts and flat washers along the perimeter of the dome.
3. Using a 5mm (Allen) wrench, loosen the four (4) set screws in each frame bracket above and below the COP wall of the cab. Turn each set screw  $1\frac{1}{2}$  TO 2 turns CCW.

(Disassembly instructions continued on next page.)

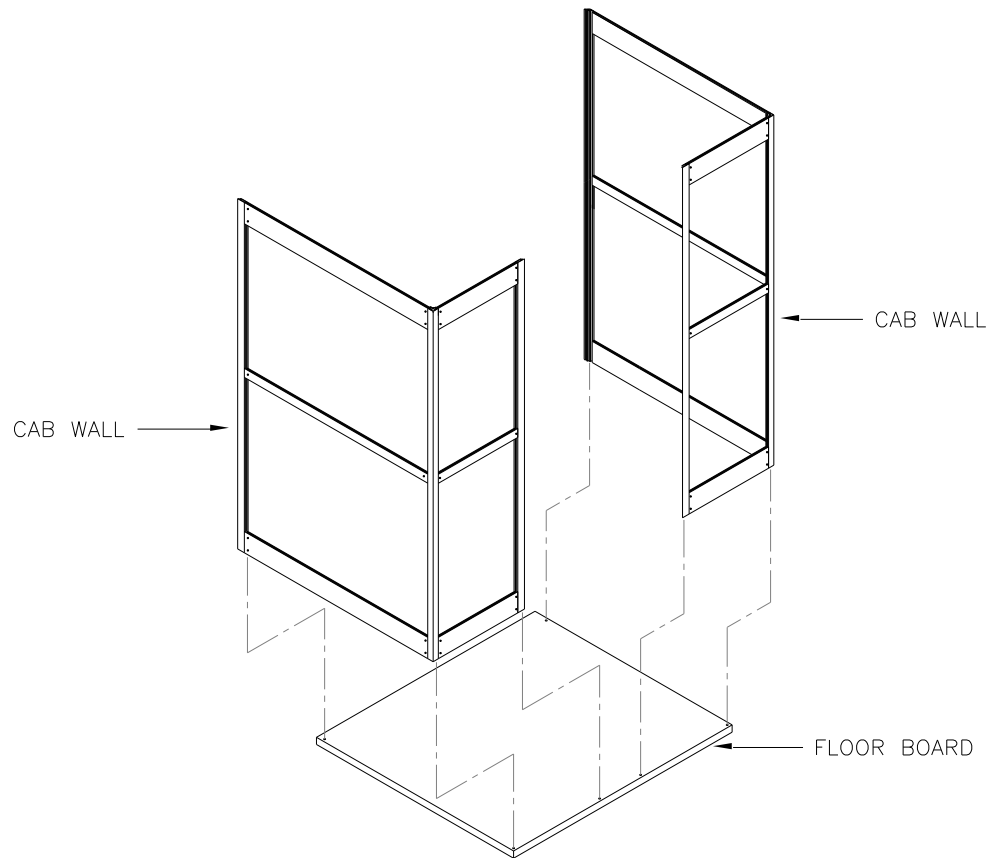


## INSTALLING 500 STYLE CAB (CONT.)



4. Remove the COP wall top frame bracket. If necessary, place a wood block on the bottom edge of the bracket and tap lightly with a hammer to separate the bracket from the COP wall.
5. Remove the COP wall along with the bottom frame bracket from the cab wall by pulling upward on the COP wall and/or pushing up on the bottom frame bracket.
6. Separate the remaining cab walls from the floor board by removing the ¼-20 x 2" Lg. Hex Hd. Bolts and flat washers located along the perimeter of the floor. **DO NOT ATTEMPT TO DISASSEMBLE THE WALL SECTIONS ANY FURTHER.**

## INSTALLING 500 STYLE CAB (CONT.)



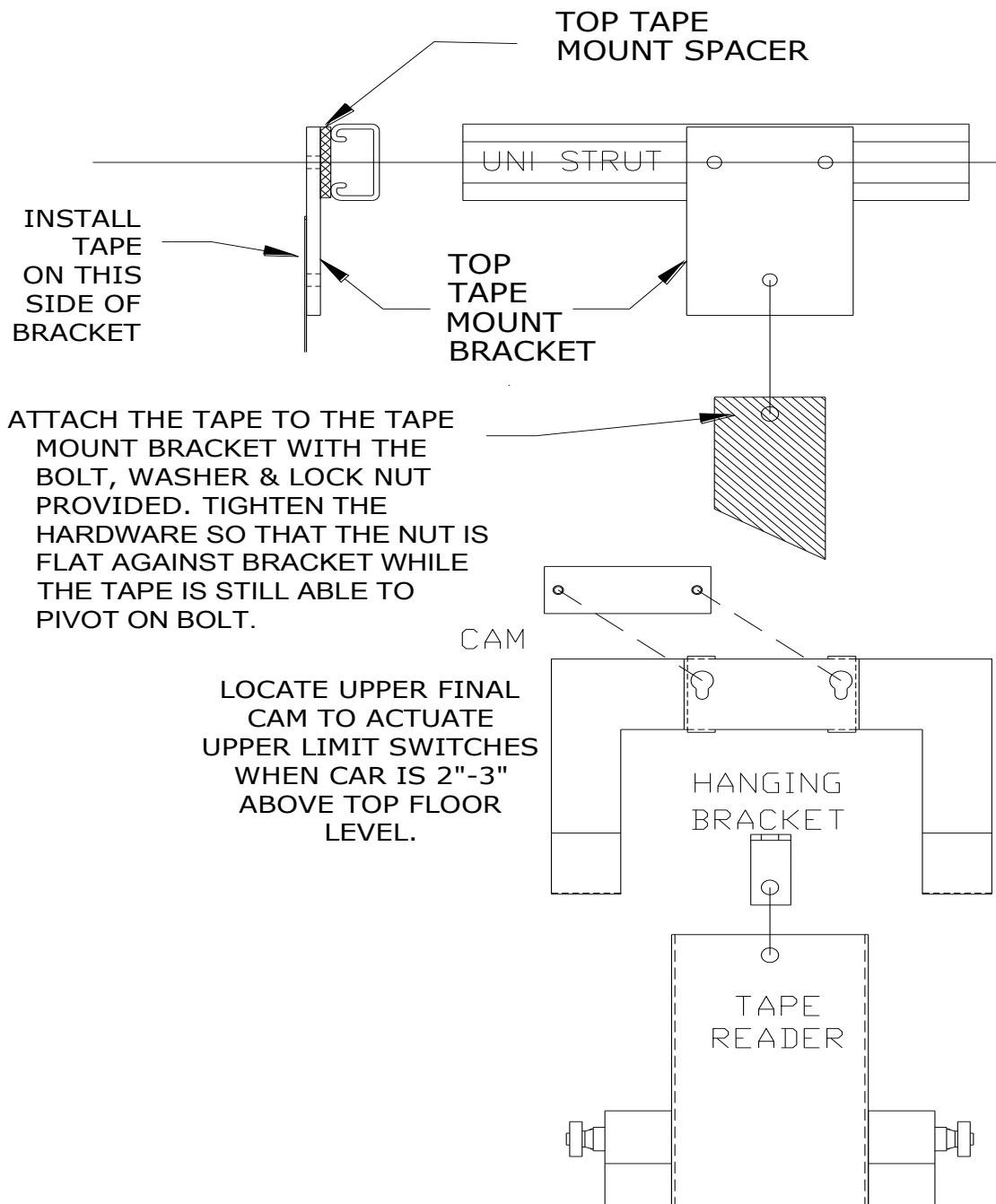
### 500 Cab Assembly Instructions

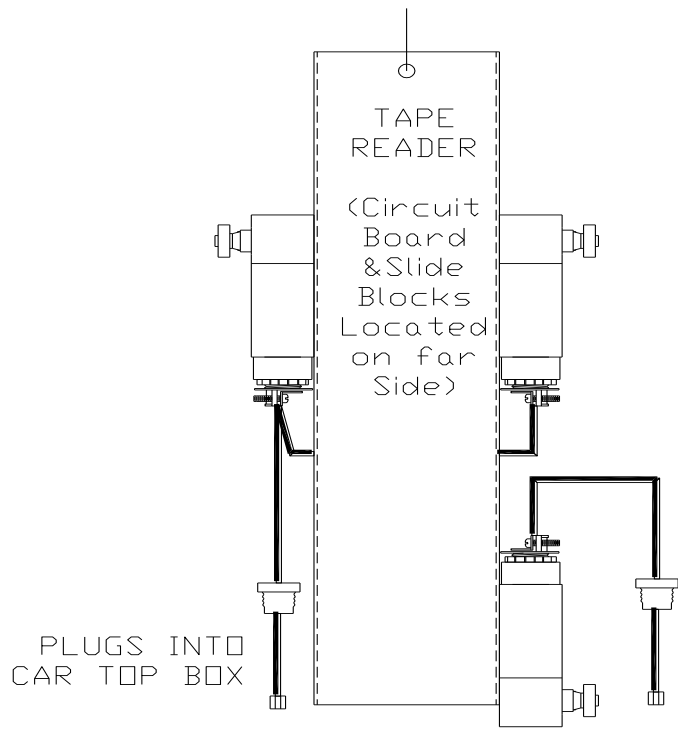
1. With the cab floor board secured to the cab platform frame, move the wall assemblies into the shaft and set on the cab floor.
2. Position each wall on the cab floor and secure with the  $\frac{1}{4}$ -20 x 2" lg. bolts and flat washers, but do not tighten at this time.
3. Re-install COP wall then tighten all set screws in the bottom and top frame brackets. Be certain the top frame bracket is flush with the walls. Tighten all bolts holding walls to floor.
4. Set dome on top of walls and secure with  $\frac{1}{4}$ -20 x 1  $\frac{3}{4}$ " Hex Hd. Bolts and flat washers.
5. Assemble gate(s) onto cab.

# MOUNTING THE STEEL TAPE & THE TAPE READER GEN III

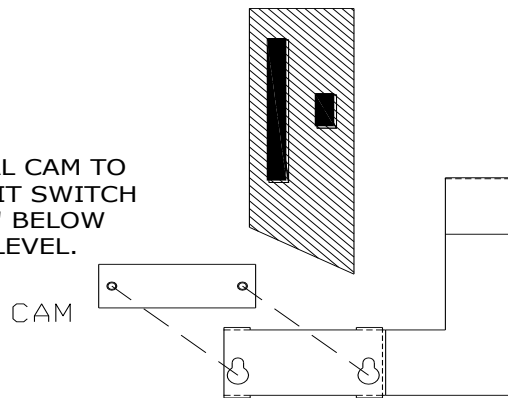
Reference drawing 80211227, Tape Reader Installation.

1. Unpack all the Tape Reader System parts and verify against the installation drawing.
2. Decide which side of the car the Tape Reader will be mounted on. Insure that the tape reader will not be interfered with by the traveling cable or any other obstructions.
3. Refer to the installation drawing listed above for installation details.

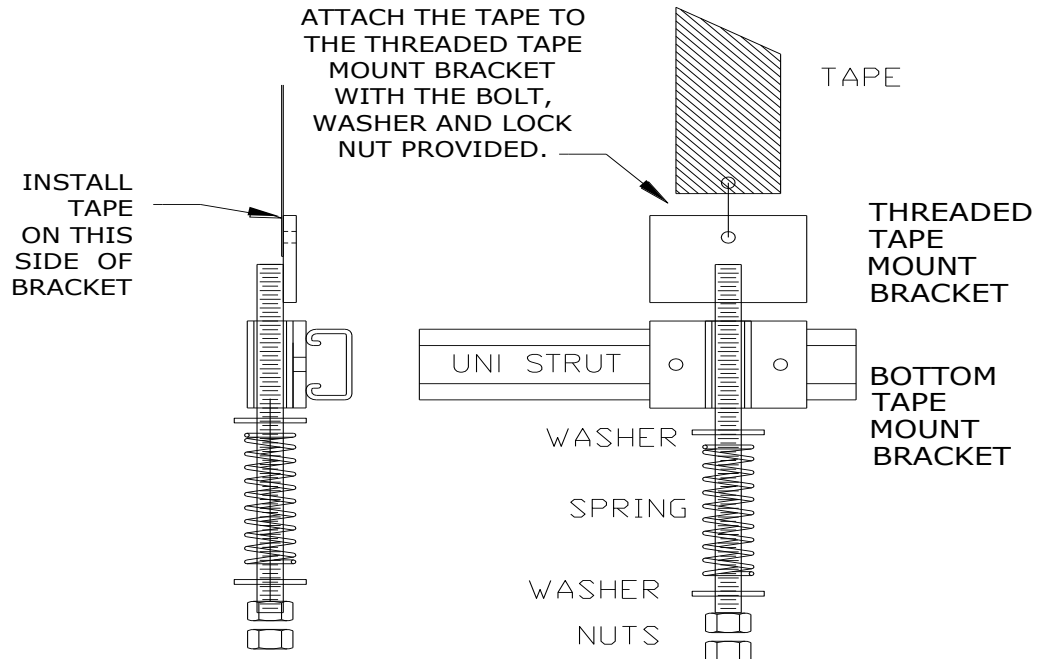




LOCATE LOWER FINAL CAM TO ACTUATE LOWER LIMIT SWITCH WHEN CAR IS 2"-3" BELOW BOTTOM FLOOR LEVEL.



ATTACH THE TAPE TO THE THREADED TAPE MOUNT BRACKET WITH THE BOLT, WASHER AND LOCK NUT PROVIDED.



# INSTALLATION OF ELECTRICAL COMPONENTS

Refer to Inclinator's Electrical installation instructions for electrical component installation including the two controller boxes, top of car box, traveling cable, remote plates, primary disconnects and secondary disconnects. Refer to any national, state and/or local codes required by the local authority having jurisdiction.



## ELECTRICAL DANGER

**Extreme caution must be taken when working around electrical circuits. There must be a reliable ground and neutral available for the elevator system in compliance with the National Electric Code. Do not use temporary power.**

## MOUNTING DISCONNECT SWITCH & CONTROLLER

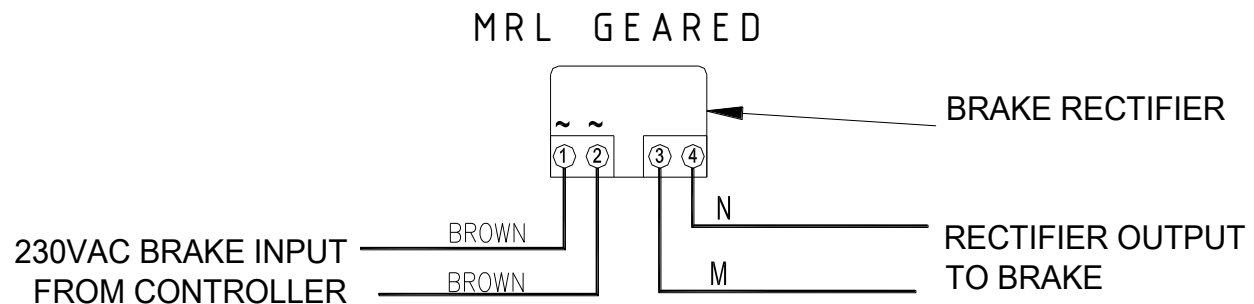
Mount both a 208/240VAC and a 110VAC disconnect in the machine room. Become familiar with N.E.C. and local codes for proper wiring and clearances. Remember to run a separate ground lead.

Install a light and outlet box in the machine room as well

Become familiar with N.E.C. code procedures. Be sure to run ground lead.

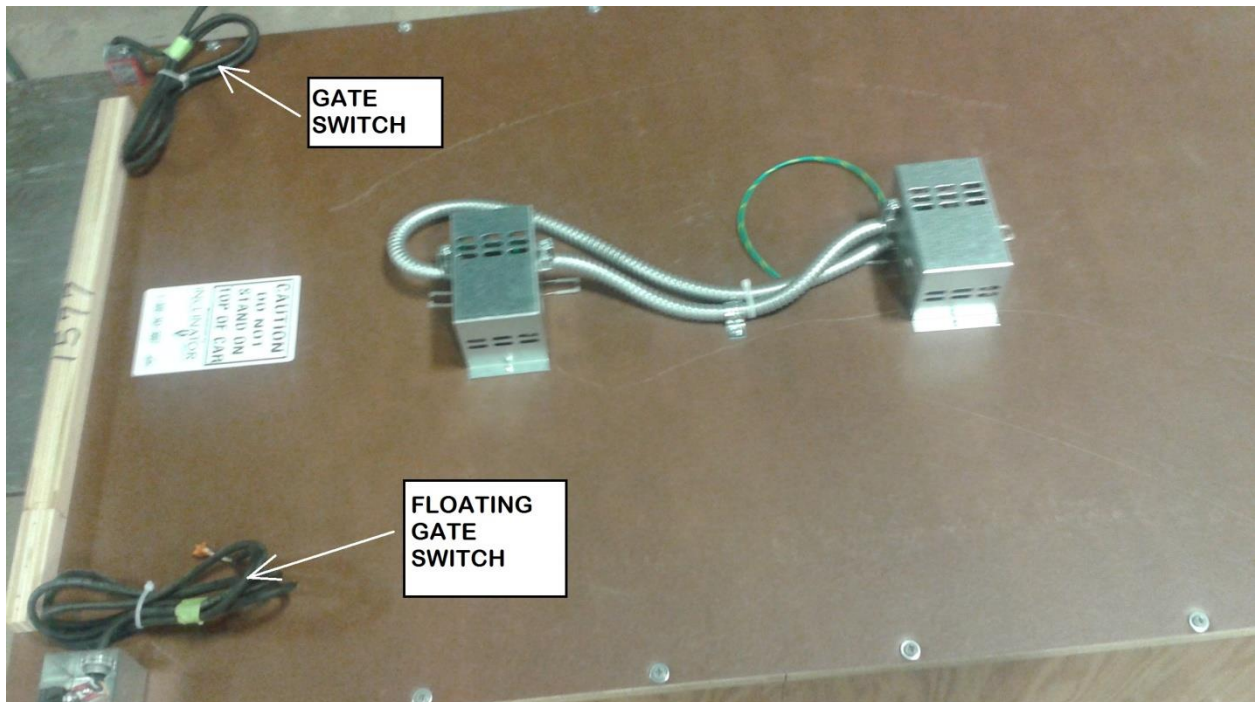
## BRAKE WIRING CONNECTIONS

The brake used on the MRL Geared machine requires a DC voltage. Therefore a rectifier is required between the controller wiring and the brake. The brake rectifier is located in the motor electrical box. Refer to electrical installation instructions to make electrical connections from the controller to the rectifier.



## TOP OF CAR WIRING

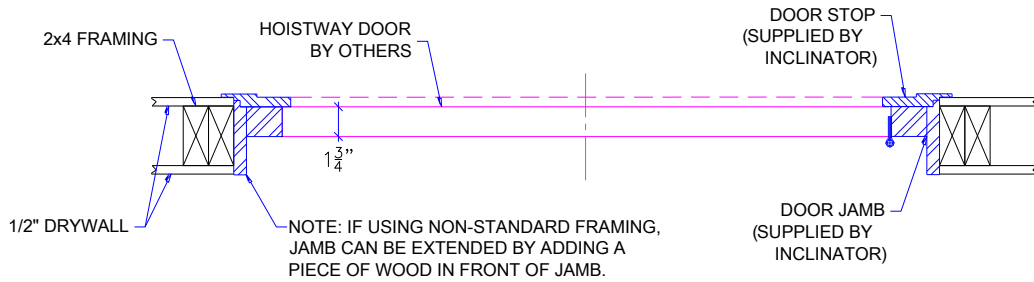
Mount the Top Of Car (TOC) enclosure in a convenient location but in close proximity to the LED light boxes. See UC601 electrical installation instructions for wiring details.



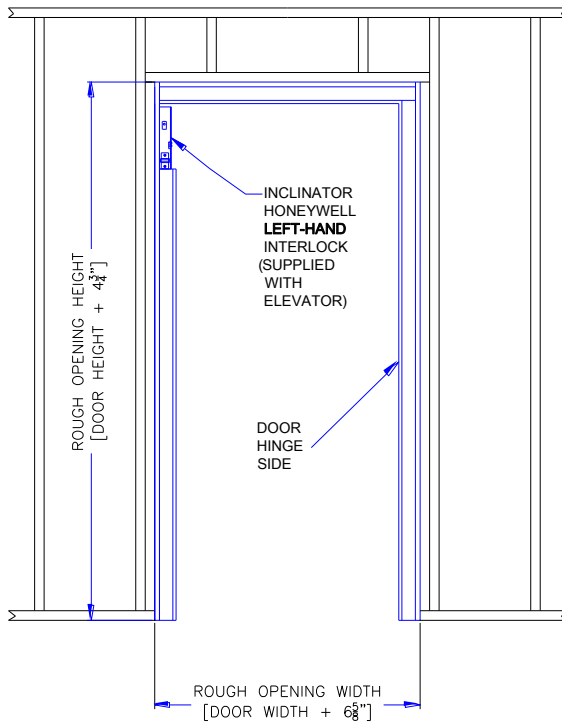
- Check continuity
- Wire carefully and be sure of connections
- Wire neatly and coil or pigtail unused wires
- Label and tag all wires when needed

# INSTALLATION OF LANDING DOOR FRAME OR PRE-HUNG DOOR KITS.

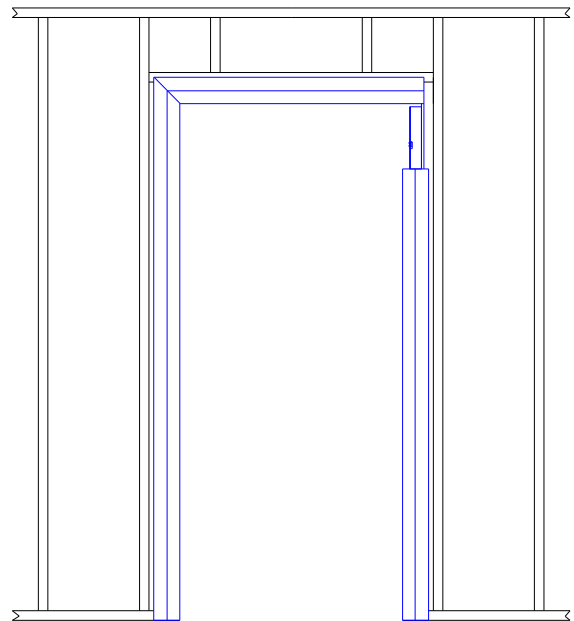
Inclinor manufactures optional ASME 17.1-2016 5.3 code compliant flush door frame kits and pre-hung flush door assembly kits. Installation is relatively straight forward using the information included with these kits as well as the diagram below. Contact Inclinor for more information.



**DOOR FRAME DETAIL**  
STANDARD 2x4 CONSTRUCTION WITH  
1/2" DRYWALL (INSIDE & OUTSIDE OF HOISTWAY)



**HALLWAY VIEW**



**HOISTWAY VIEW**

## INSTALLATION OF DOOR INTERLOCKS

### **WARNING**

**FAILURE TO INSTALL INTERLOCKS CORRECTLY MAY RESULT IN INJURY OR DEATH.**

### **GENERAL INFORMATION**

Inclinor-Honeywell residential door interlock switches are electromechanical devices designed for use in residential swing door applications. The interlock holds the door in place and prevents it from being opened in potentially unsafe conditions (e.g. the elevator car is not present at the landing door).

Inclinor-Honeywell interlocks comply with ANSI/ASME A17.1 & A18.1 :2010, (the safety code standards for elevator and escalators), CAN/CSAB44, and UL104 standards. The snap-action cam mechanism reduces adjustment set-up time and the key engagement was designed to minimize maintenance costs. The Inclinor-Honeywell interlocks has a robust zinc die cast housing and cover with a powder coat finish (white or bronze). Inclinor-Honeywell interlocks are available in left- and right-hand versions, allowing for simplified installation.

The Inclinor-Honeywell interlock must be specified as either “left” or “right” hand since it cannot be changed in the field. *When standing on the landing floor, looking into the elevator cab, if the lock mounts on the RIGHT side of the doorjamb it is a “RIGHT HAND LOCK”. If it mounts on the LEFT side it is a “LEFT HAND LOCK.”*

### **WARNING**

**INCLINATOR-HONEYWELL RESIDENTIAL DOOR INTERLOCKS ARE NOT A SEALED ASSEMBLIES. IT IS NOT RECOMMENDED TO BE USED IN THE AREAS WHERE LIQUID OR OIL MAY SPLASH.**

### **CAUTION**

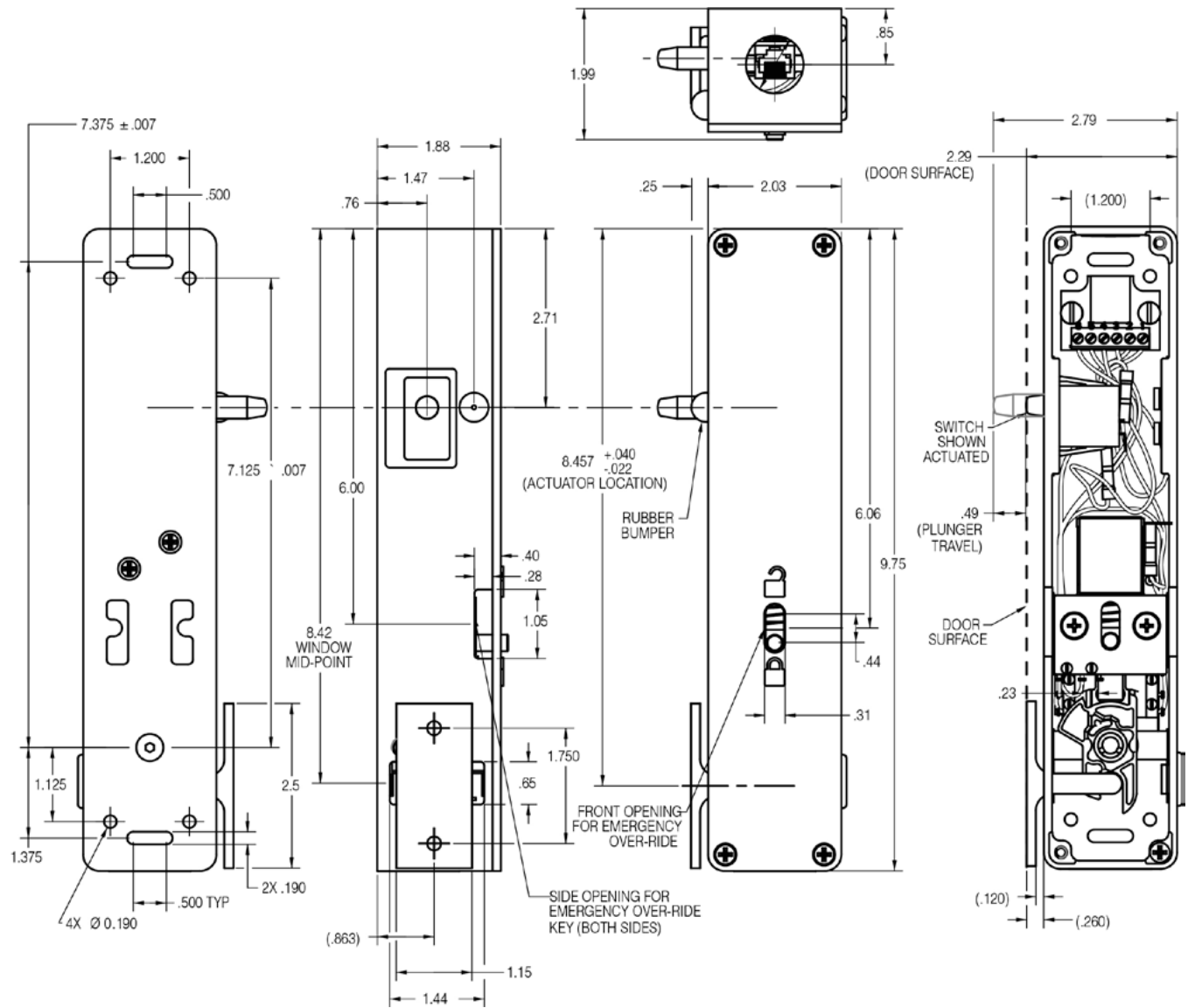
The Inclinor-Honeywell residential door interlock is not to be used for non-residential applications where interlocking of swing type doors is required.

### **MOUNTING**

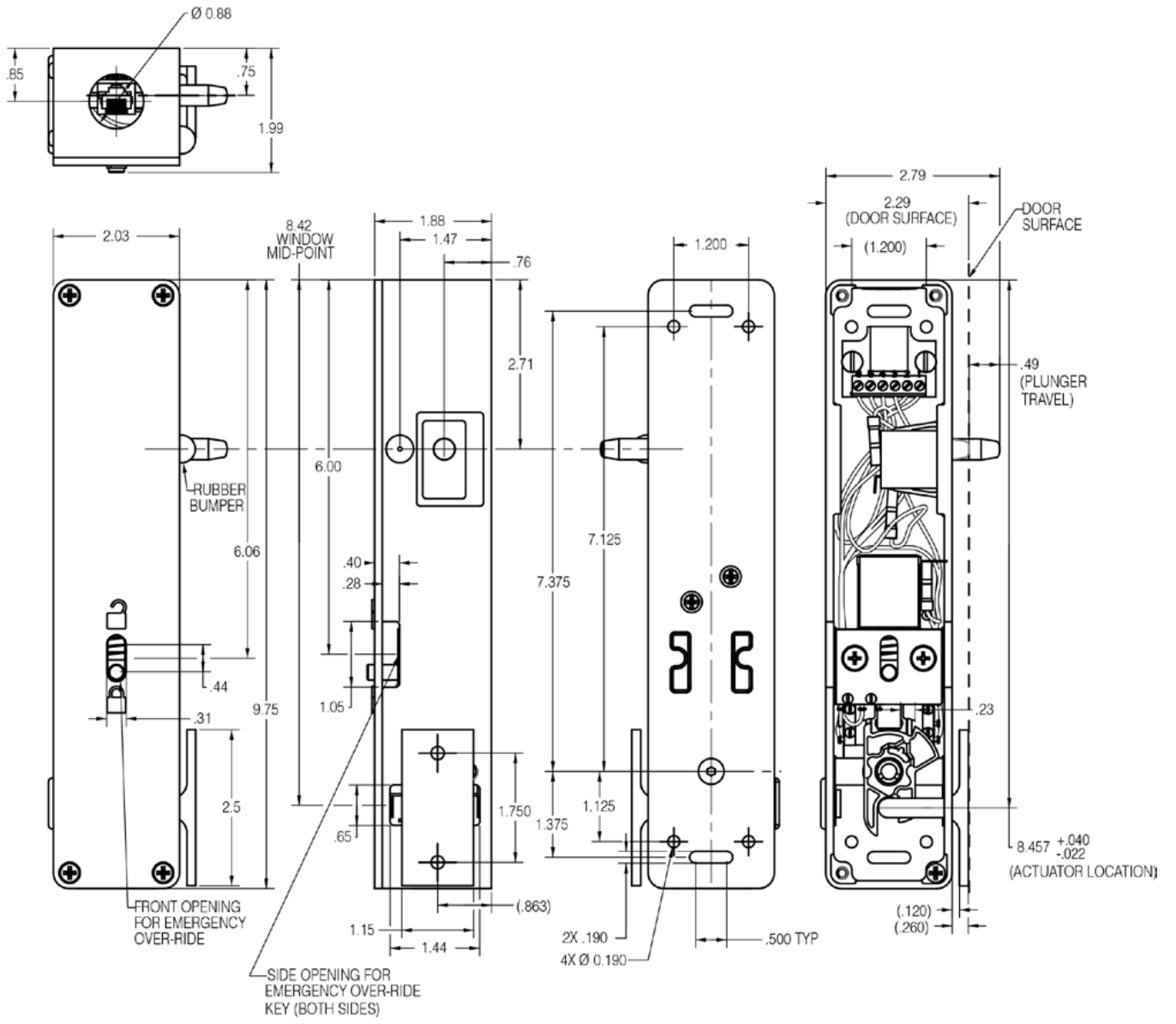
Refer to the following mounting dimension drawings for the installation locations. A separate mounting template is provided in the product packaging which will guide the installer on how to prepare for the installation of the interlock. The interlock shall be mounted only in vertical orientation with the conduit opening at the top. Remove the terminal block assembly inside the housing to reach the mounting holes. Ensure that the terminal block is assembled back onto the housing securely using the screws, once the interlock is mounted.



# LEFT-HAND MOUNTING DIMENSIONS (For reference only)



# RIGHT-HAND MOUNTING DIMENSIONS (For reference only)



## **ADJUSTMENT**

The mounting template aligns the key to the center of the opening in the interlock housing allowing for door sag over time without any adjustment.

## **IMPORTANT NOTICE**

Strict compliance with installation instructions / mounting template is essential for safety. It is the customer's responsibility to ensure they are followed. It is imperative any wear on the actuator key or on the switch itself are identified at an early stage and the necessary corrective actions implemented (replacement), thus ensuring safety.

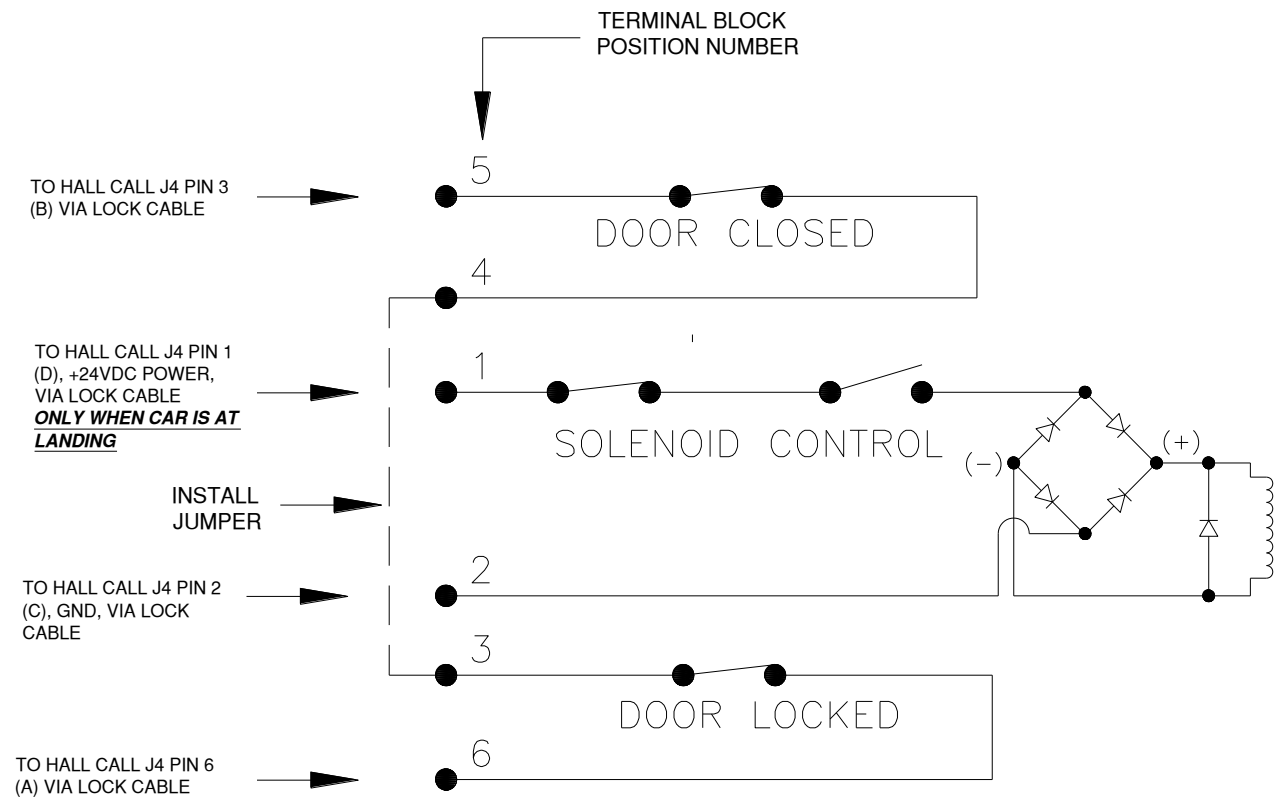
## **GENERAL DIRECTIONS**

- A. The actuator key for the switch **MUST** move freely without jamming during operation.
- B. The alignment of the key to the switch **MUST** be checked as per the mounting template.
- C. Visually ensure that no mechanical damage has occurred to the switch body or key. If damage is found the complete switch assembly **MUST** be replaced.
- D. Test the switch for correct electrical operation while installed and operated normally.

# INTERLOCK WIRING INSTRUCTIONS

The Inclinator-Honeywell interlock will be assembled with a wire harness designed to plug directly into the lock cable. If you need to disconnect the wire harness, use the following instruction and diagram to reconnect the harness.

1. Remove the cover by unscrewing the cover screw(s).
2. Unscrew the terminal screws. Connect wires per the schematic provided below. Torque all terminal screws with a tightening torque of 0.5 Nm to 0.7 Nm.
3. Reinstall the cover and securely tighten the screw(s). Recommended tightening torque for the cover screw(s) is 1.5 Nm max.



## **DOOR INTERLOCK EMERGENCY ACCESS**

The Inclinator-Honeywell interlock has a lock lift pin for manually unlocking the hoistway door.

If the interlock is being used with an Inclinator-Honeywell Keeper Mounting Bracket Kit or a Pre-hung Flush Door Assembly Kit, a special key is required to unlock the door. Insert the key through the hole and push down (outside of door) to lift the lock pin and unlock the door. This key, Inclinator part number 21301116 Door Interlock Escutcheon key, must be ordered separately.

If mounting the interlock without the Keeper Mounting Bracket, a hole must be drilled in the door to access the lock lift pin. Use the mounting template included in the packaging of the lock for details on the location and size of this hole. To unlock the door, place a long slender screwdriver or 1/4" diameter pin through the hole and push down (outside of door) to lift the lock pin and unlock the door.

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