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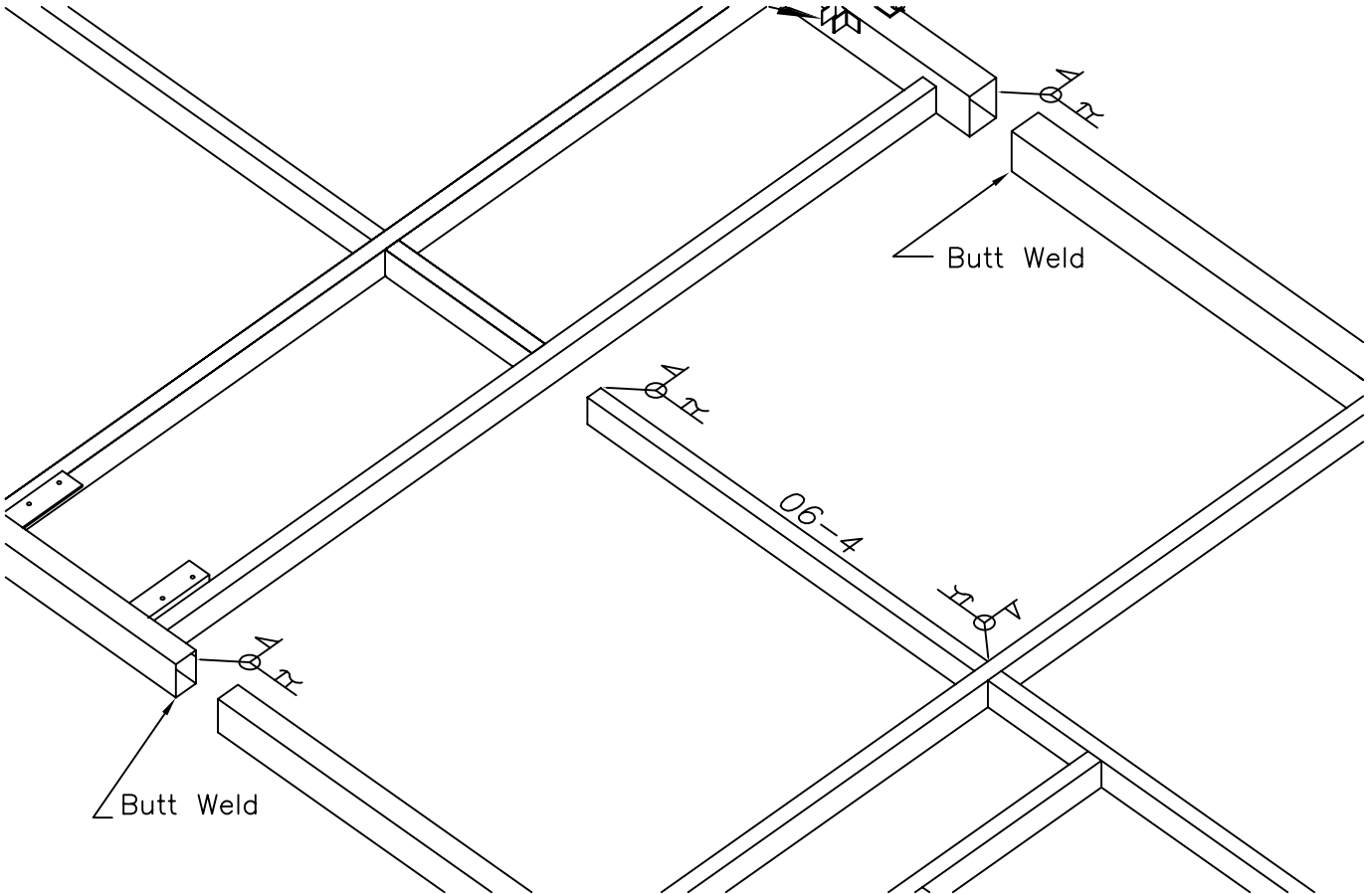
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STEP 1:

Check door opening frame to be sure height and width are correct. Header must be straight and level. Jambs must be plumb.

STEP 2:

Place the bottom two panels out on a flat level surface with the bottom of the door against the door column. Locate the girts numbered 06-4 and slide the two panels together and butt weld the top and bottom tubes. Then place the 06-4 girts even with the girts on either side and weld in place.

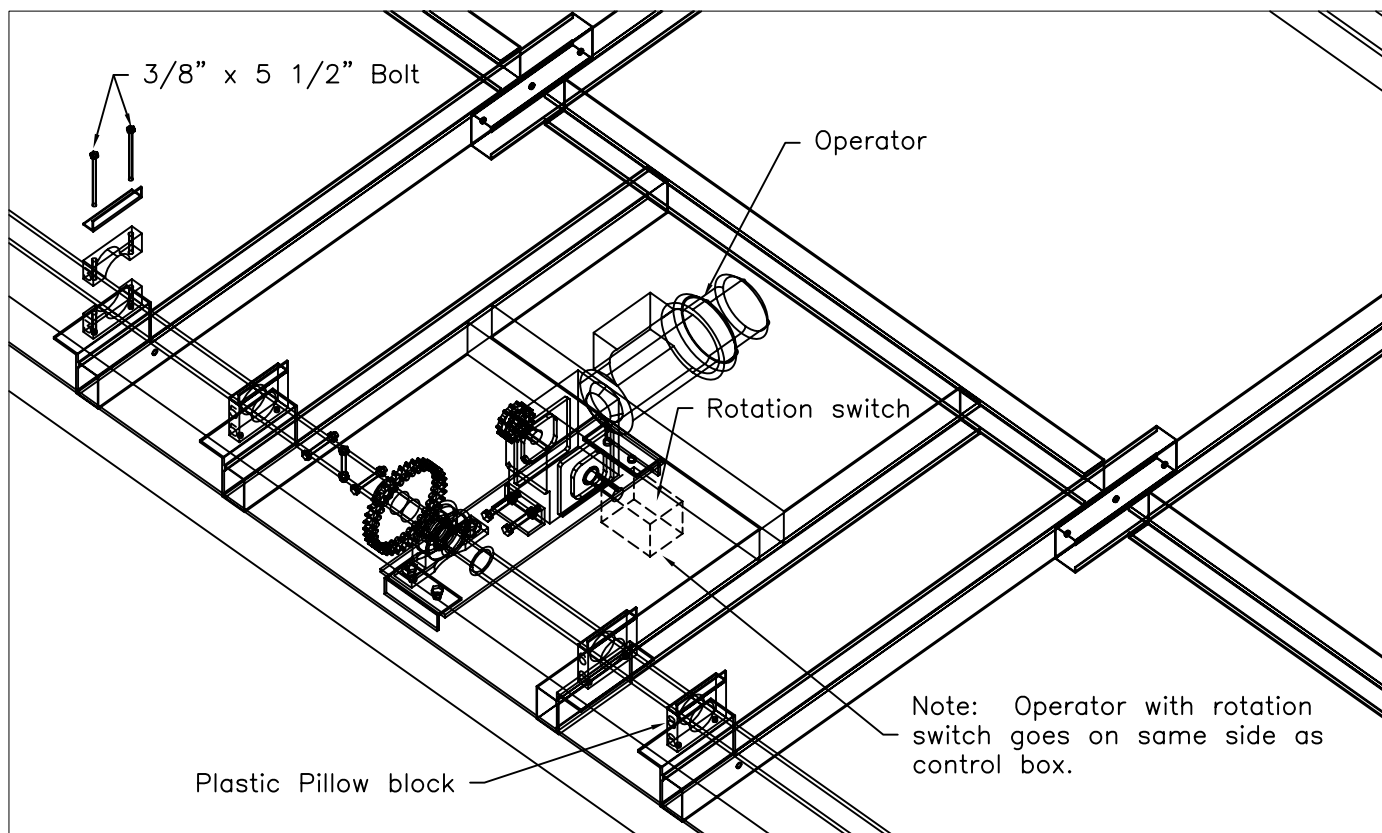
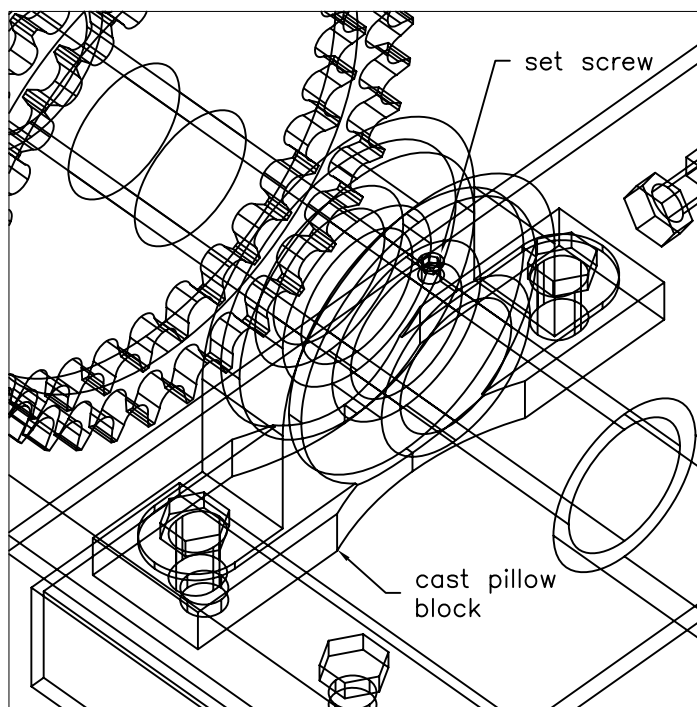
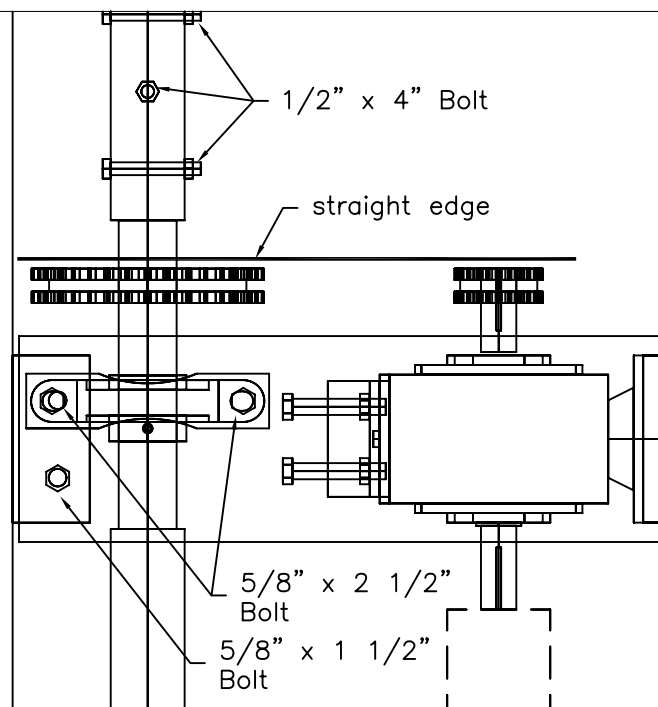


STEP 3:

Place the two top panels on a flat level surface above the bottom panels and locate the other two 06-4 girts. Butt weld the top and bottom tubes. Then place the 06-4 girts even with the girts on either side and weld in place.

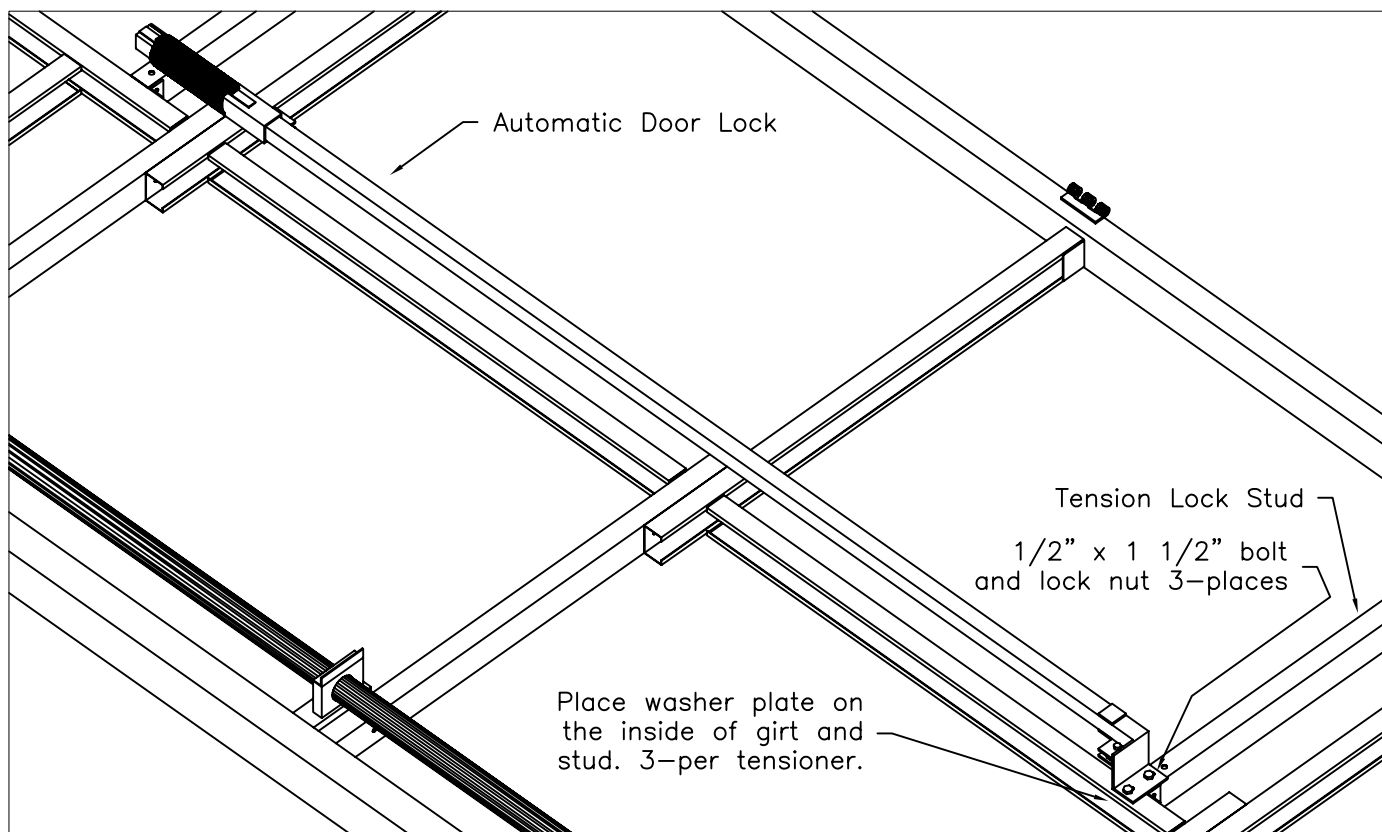
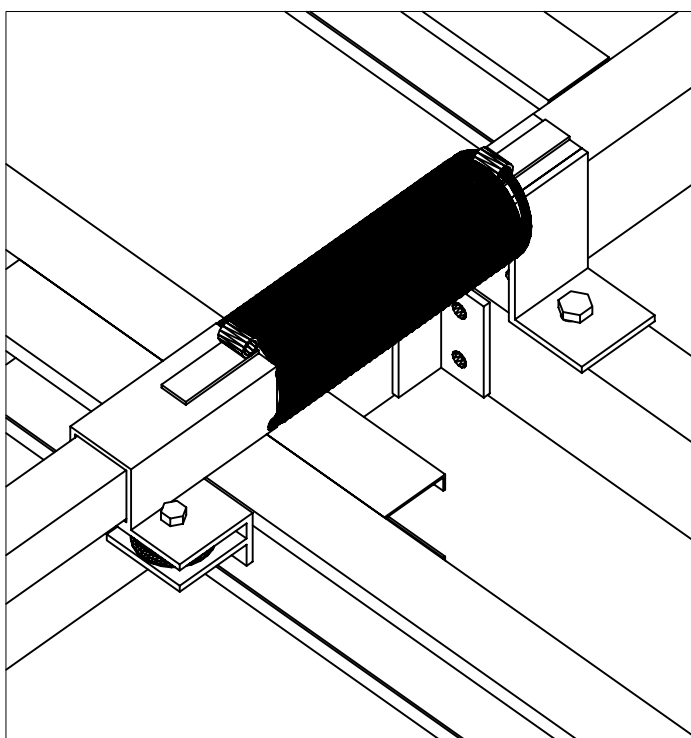
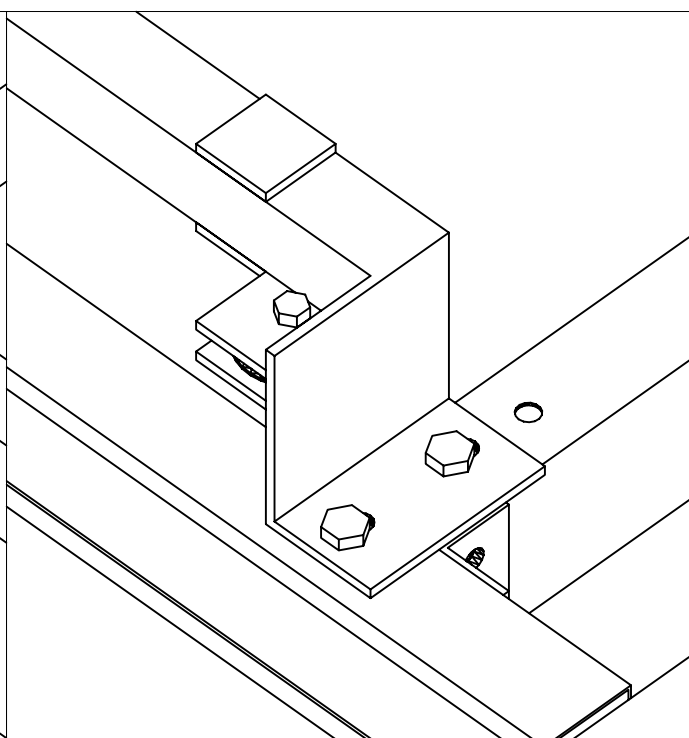
STEP 3:

Install and bolt operator in place, next place the driveshaft with the cast iron pillow block in place. Put 1/2 of the poly-plastic pillow block in place, keeping the numbers on the side of the blocks match. Place lineshafts in and align lifting eyes to the top of the door. Tighten set screws on cast pillow block. (See Detail 4) Put other half of pillow blocks on and tighten. Line up both sprockets with a straight edge and tighten the bushing and set screws (See Detail 5) Place chain on. Do not weld lineshaft at this time.

**Detail 3****Detail 4****Detail 5**

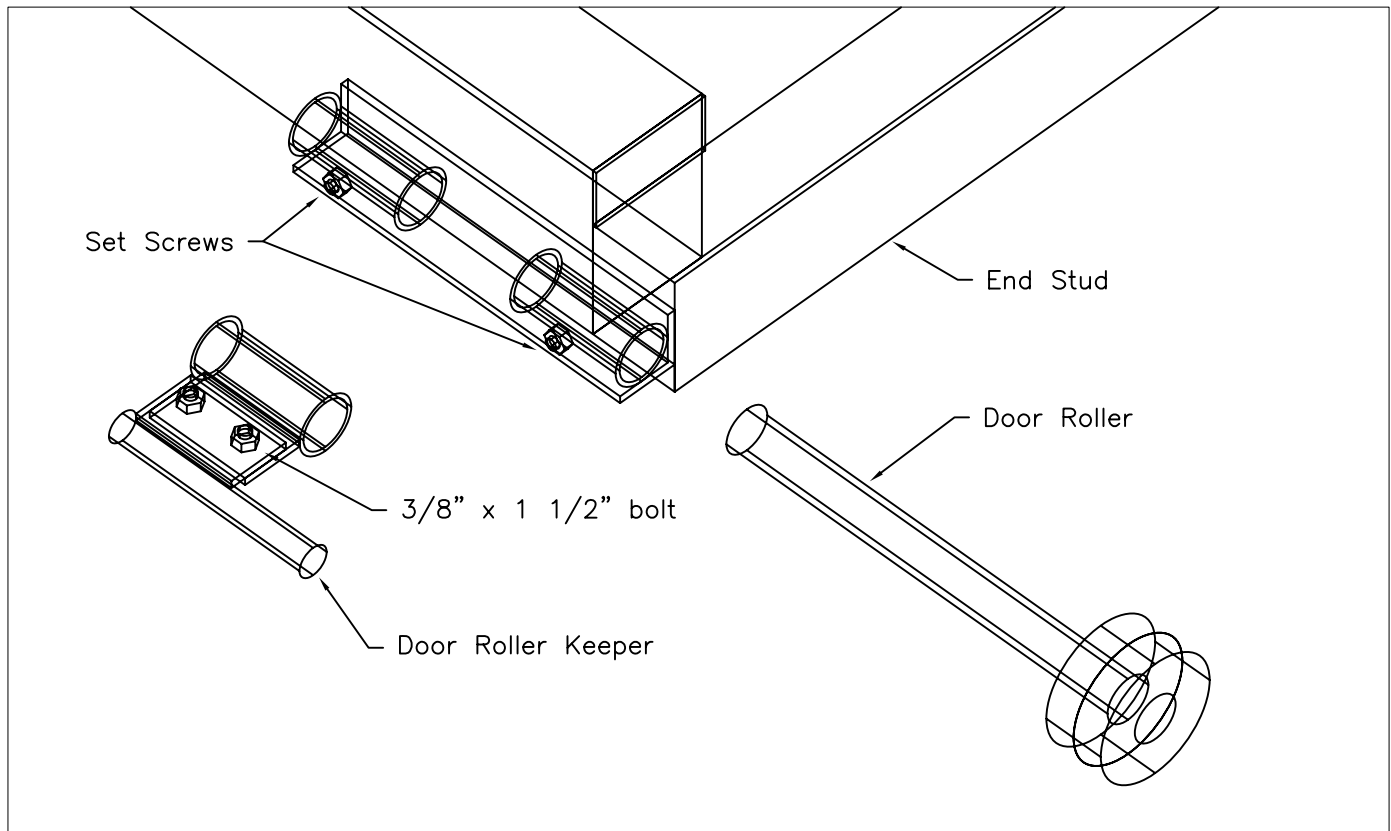
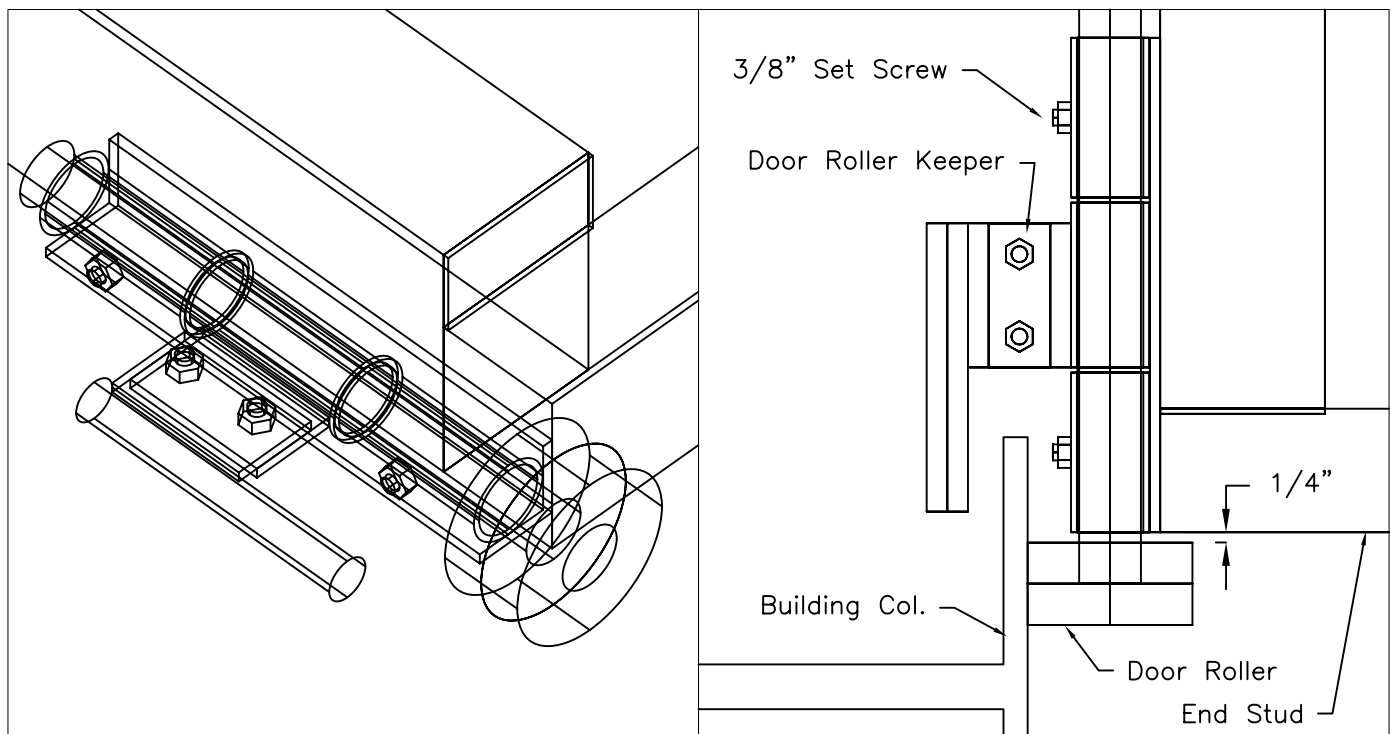
STEP 5:

Place Automatic Door Lock in place and tighten.

**Detail 8****Detail 9****Detail 10**

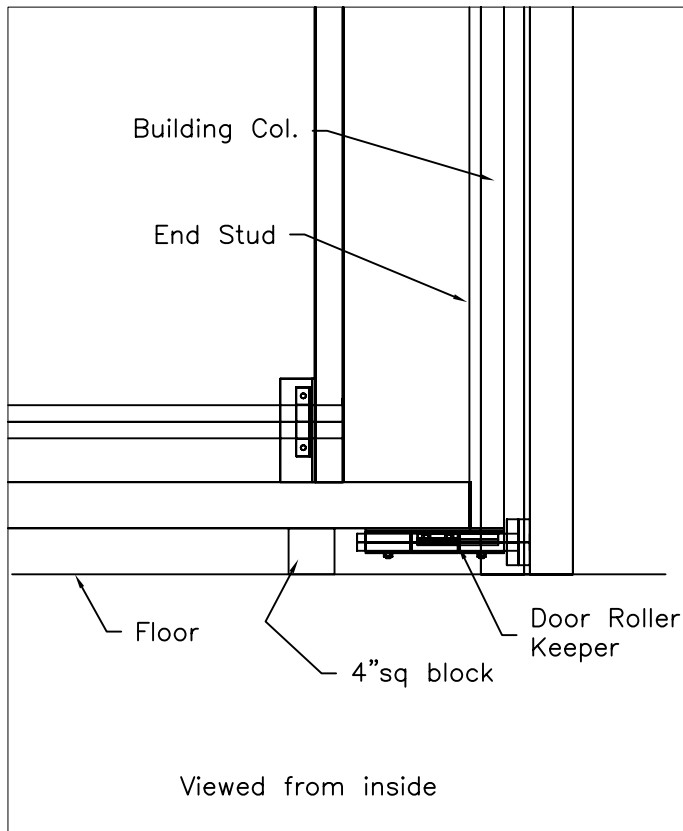
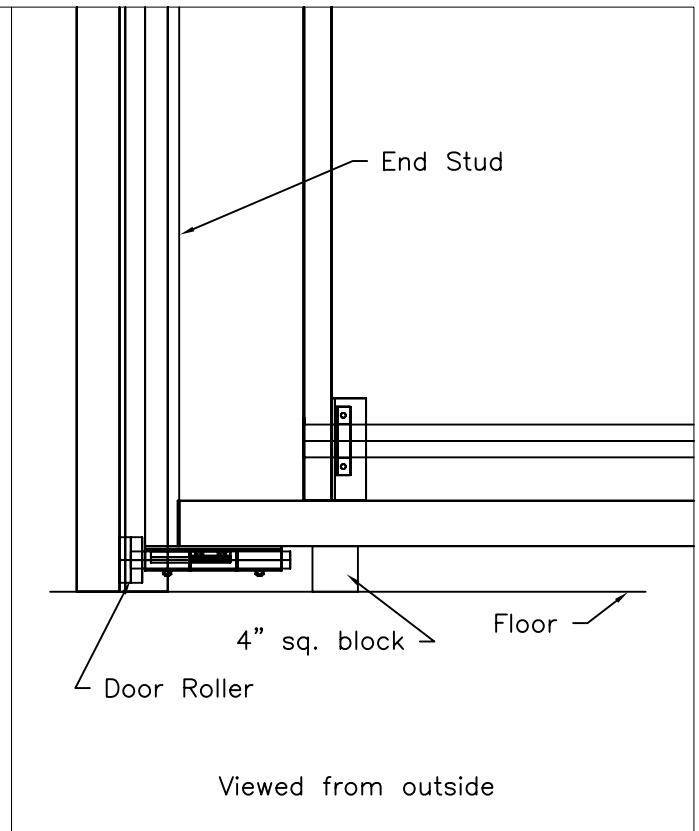
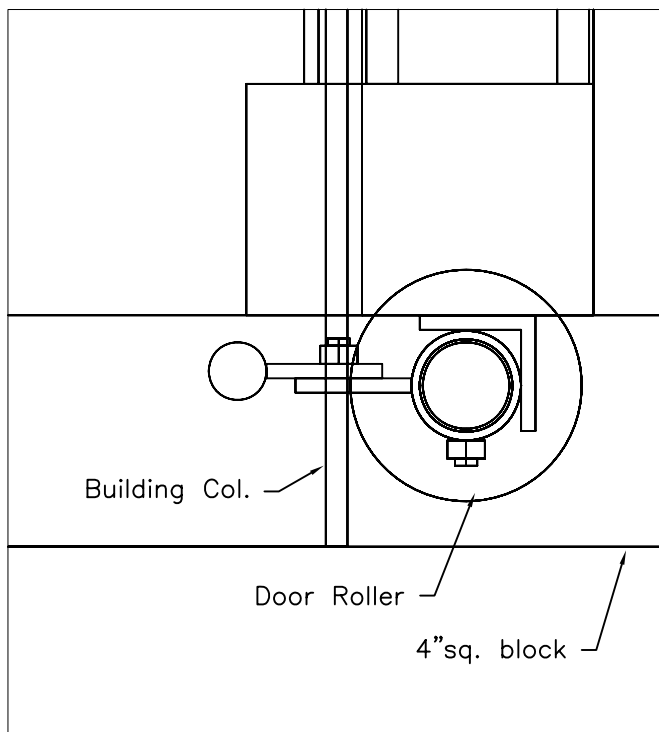
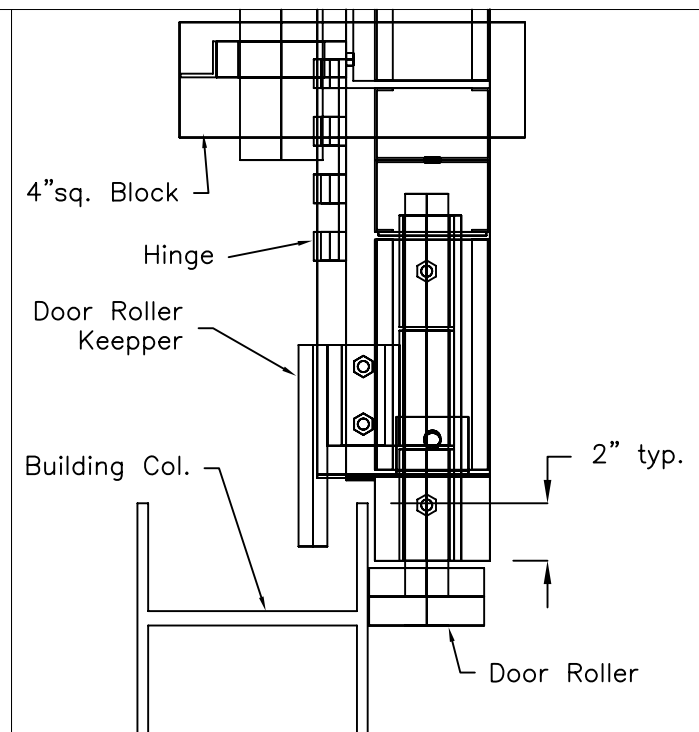
STEP 6:

Install door roller and door roller keeper as shown in detail 11. Place around building col. as in detail 13. Be sure to leave 1/4" between roller and end stud on door. Then tighten the set screws to hold door roller in place.

**Detail 11****Detail 12****Detail 13**

STEP 7:

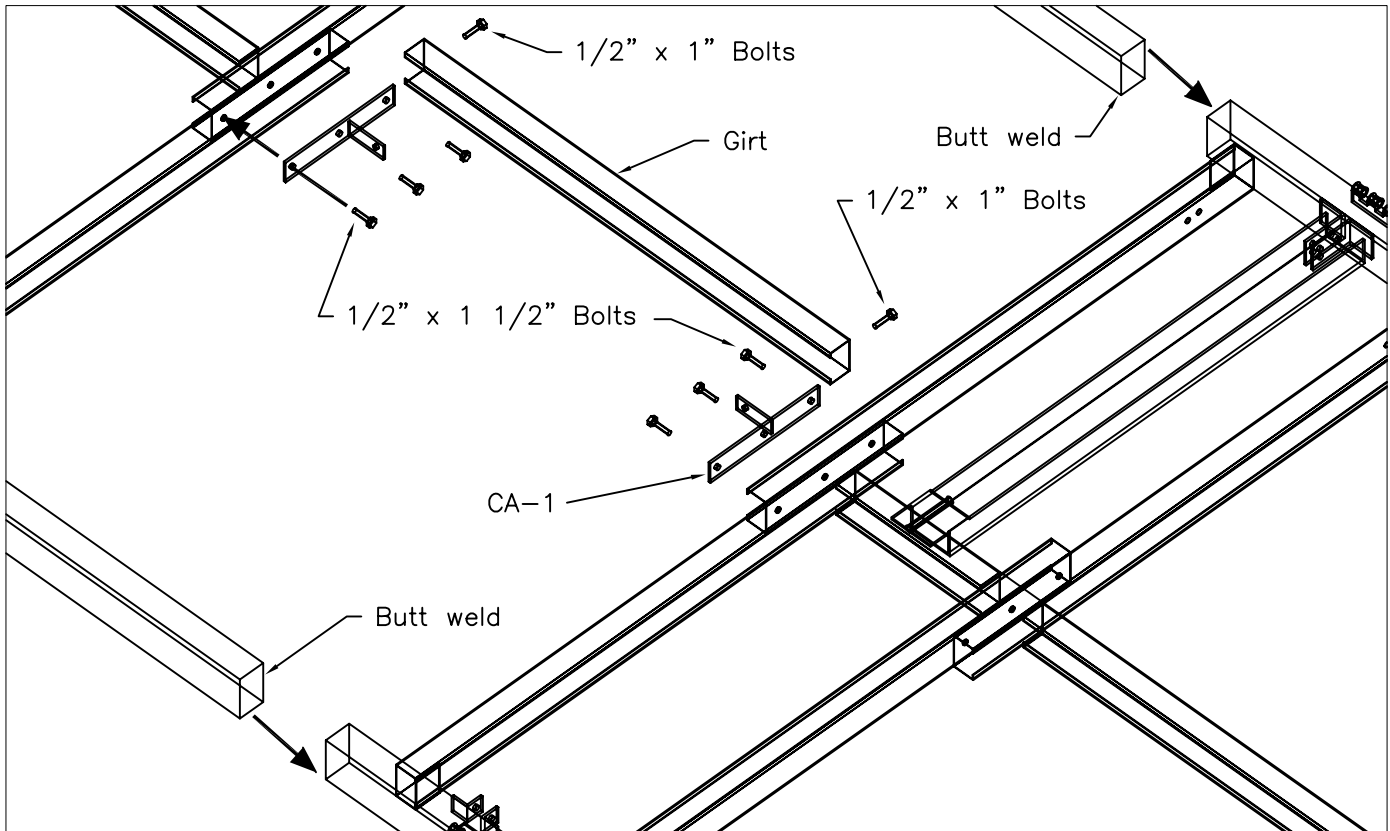
Now set door in opening putting door on top of blocks 4' above finished floor. Be sure door is centered in opening and that door panel is level. Clamp or tack weld panel to building columns.

**Detail 14****Detail 15****Detail 16****Detail 17**

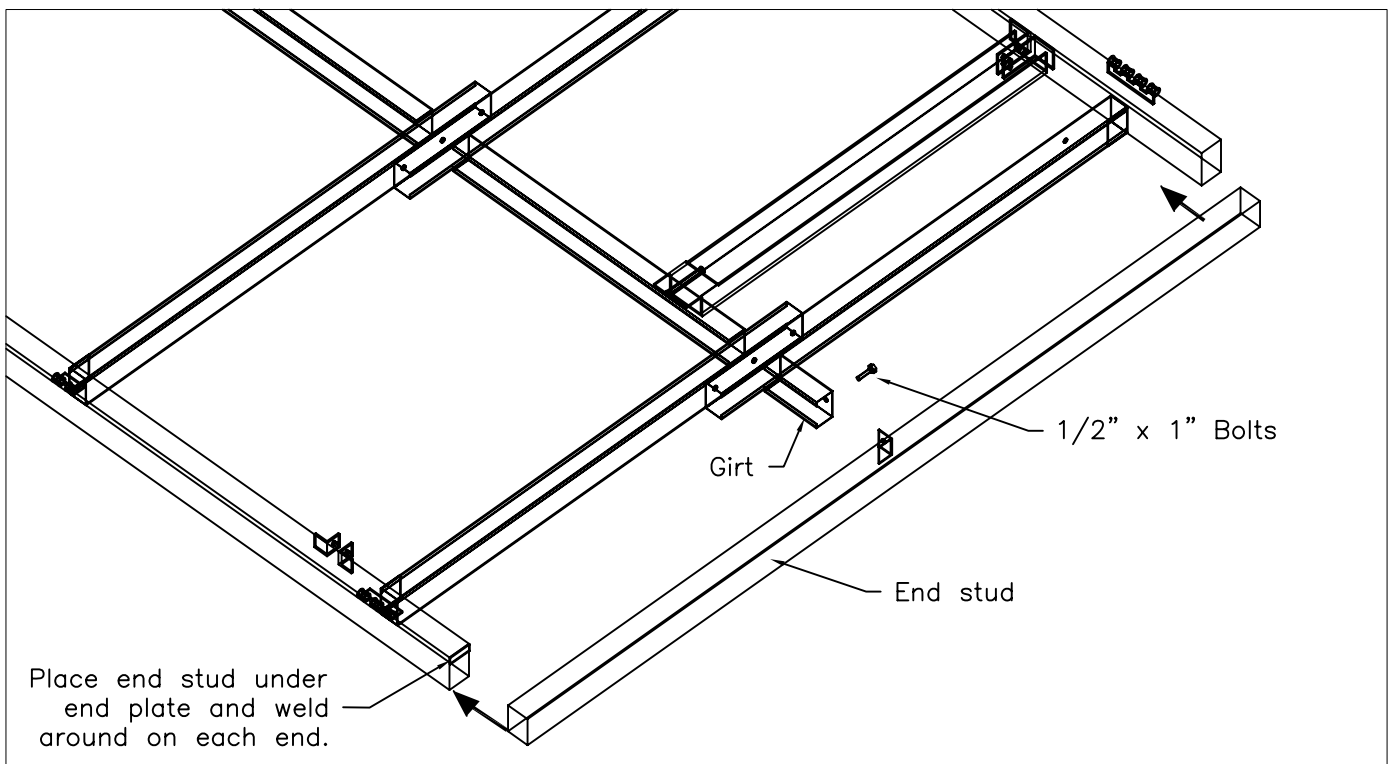
STEP 8:

7

Place the top two panels out on a flat level surface with the bottom of the panels closer to the building, unbolt and spread panels out. Then rebolt using CA-1 clips. Install girts between studs at CA-1 clips as shown in detail 18. Weld end tube studs in position at end of each panel as shown in detail 19. Line the panels up straight and level and butt weld the tubes together at center of door as shown in detail 18.



Detail 18



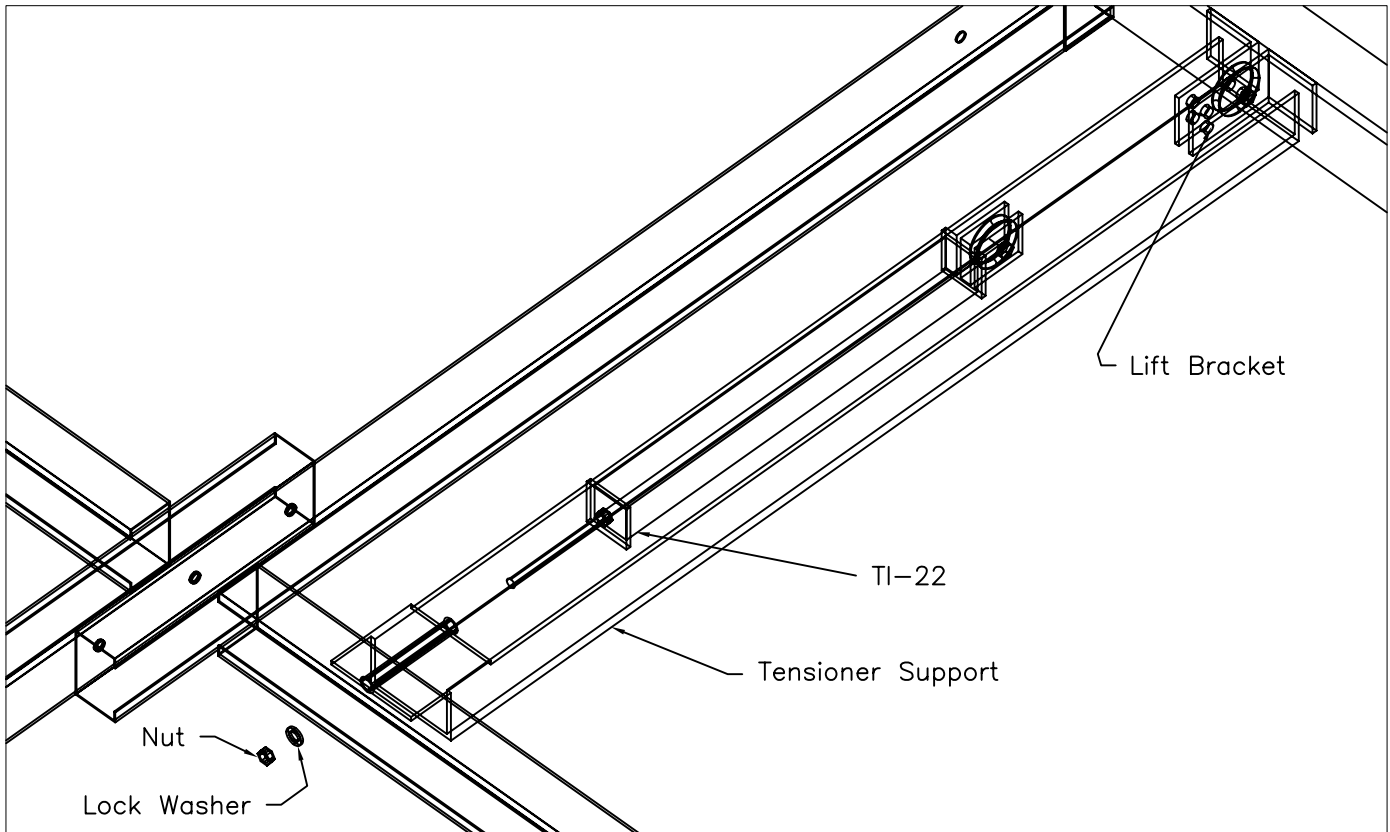
Detail 19

STEP 9:

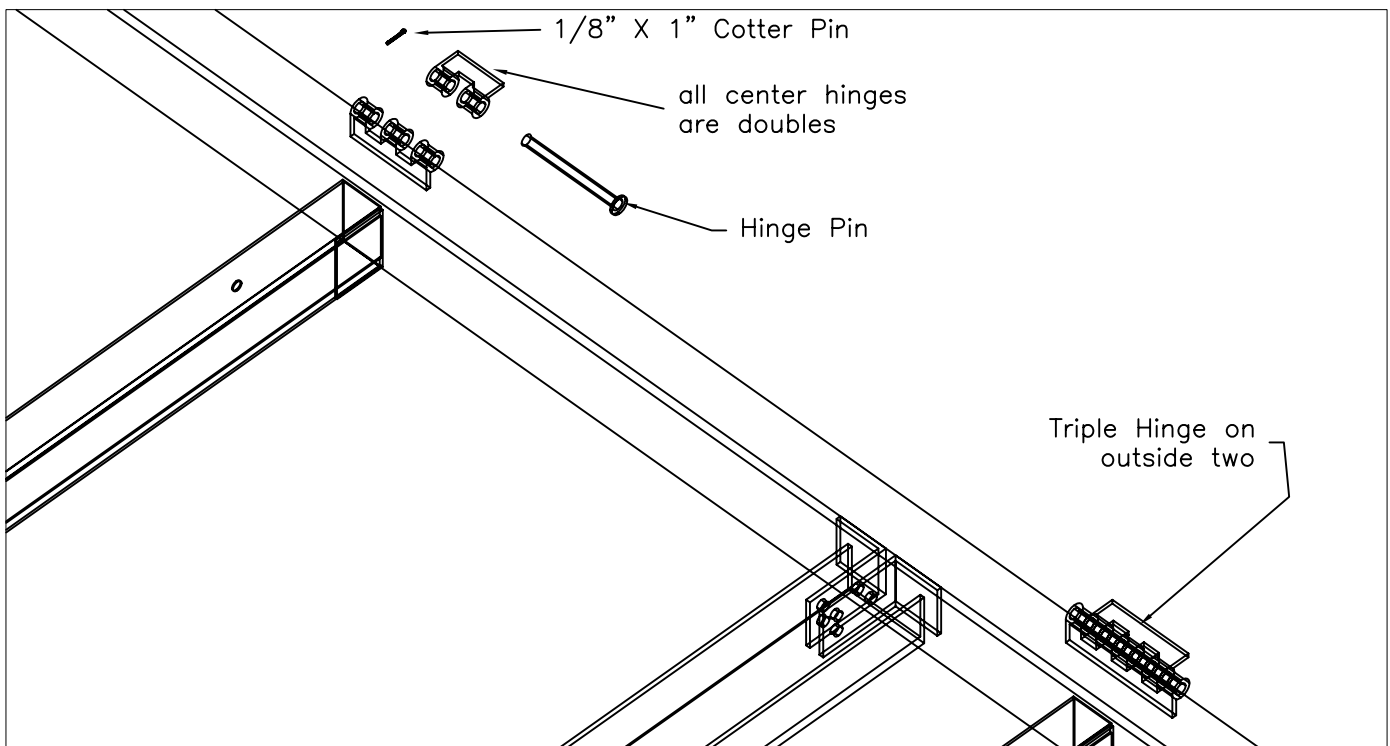
8

Installing the TI-22 in the tensioner support as followed. With the Cable Tensioner (TI-22) under no tension run one nut up to the bottom of the Tensioner. Slide Tensioner (TI-22) into the bracket at the bottom of the tensioner support and place lock washer and other nut on and tighten. See detail 20.

Installing the header hinges to the hinges welded to the top of the door. Be sure to grease the hinge pins before assembly. Use 1/8" x 1" cotter pins in the end of hinge pin. As in detail 21.



Detail 20

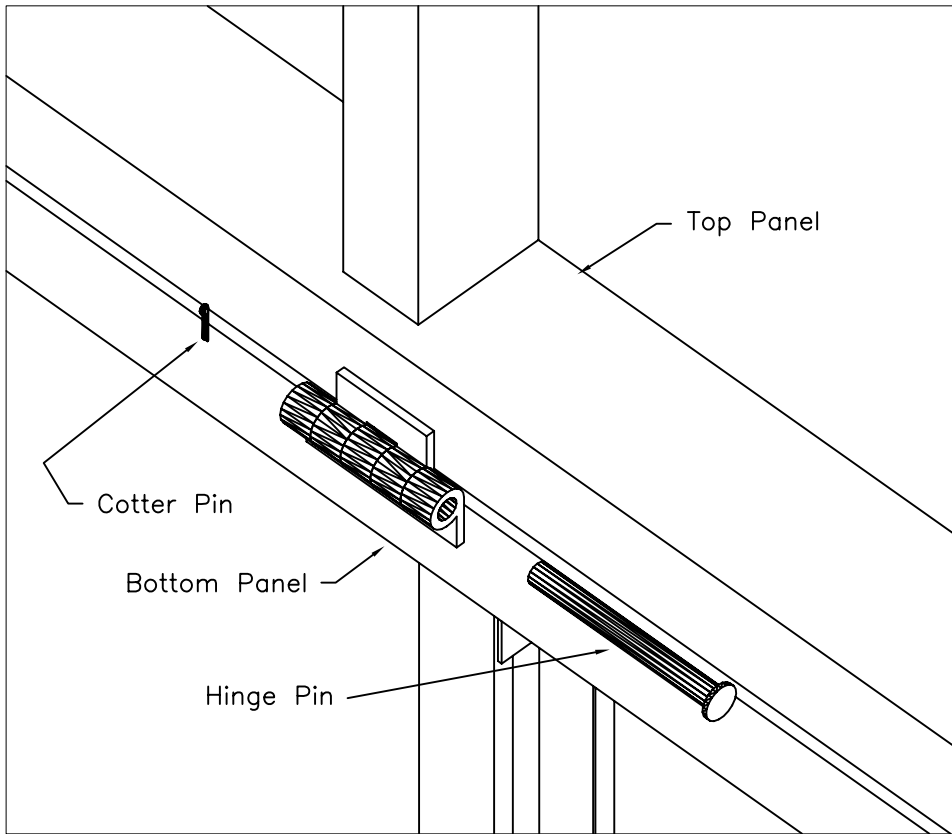


Detail 21

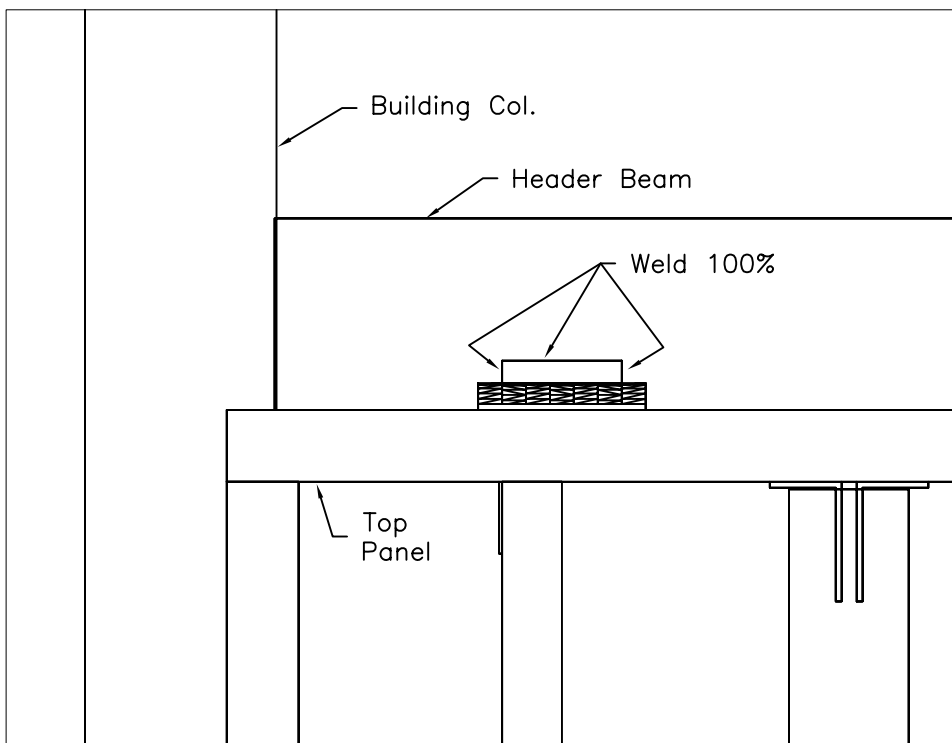
STEP 10:

9

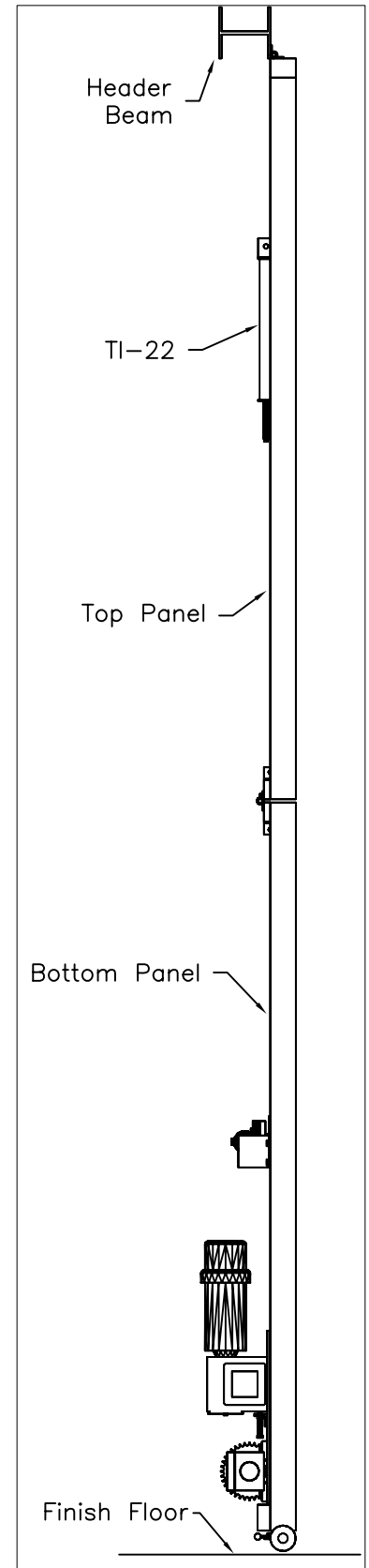
After top panel is assembled tip up and lift into position on top of bottom panel. Install hinge pins and cotter pins at all center door hinges as in detail 22. Be sure to grease hinge pins before installing. Check door to be sure it is centered in the opening and that it is level. The door should be 4" off the finish floor. After checking to be sure that the door is centered and level, field weld header hinges to the header beam as shown in detail 23.



Detail 22



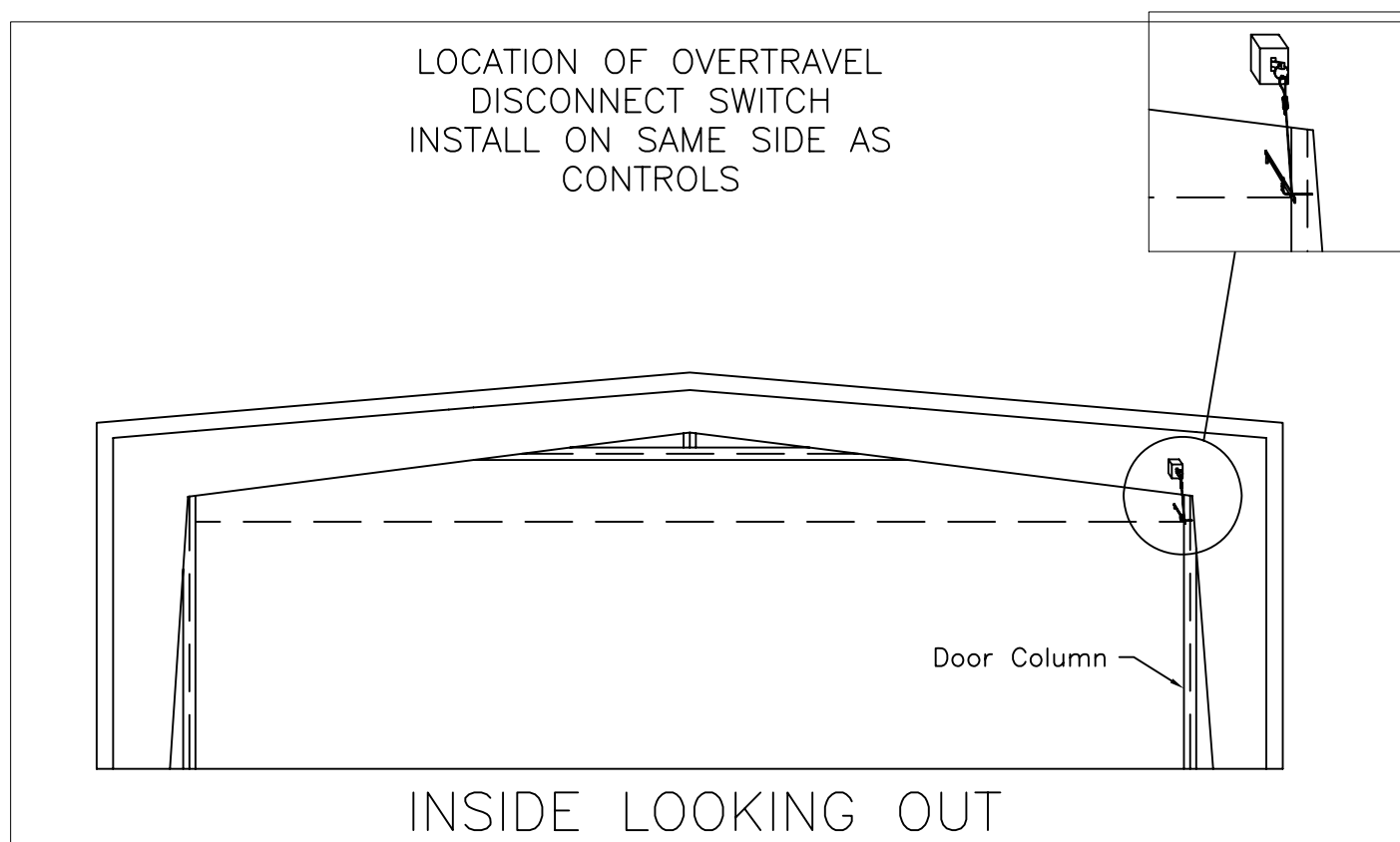
Detail 23



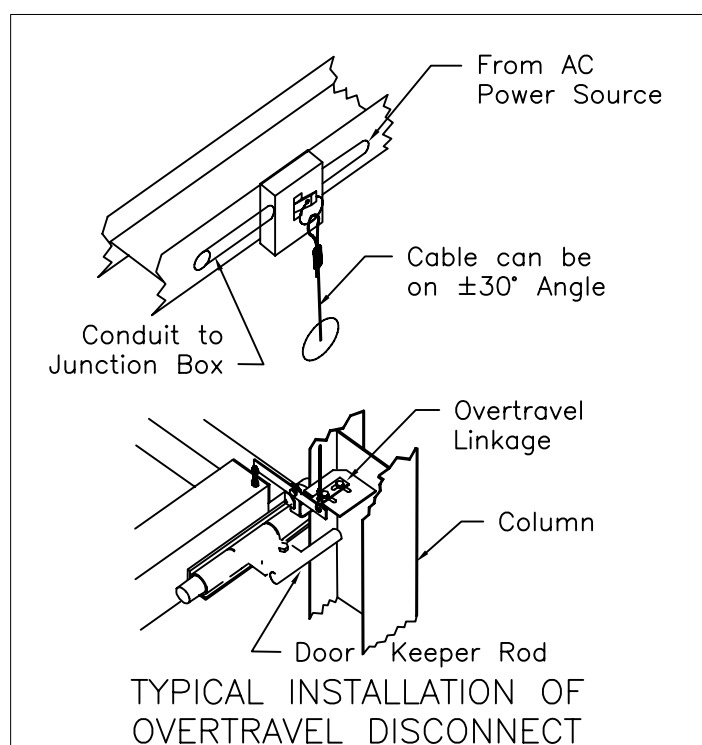
Detail 24

OVERTRAVEL DISCONNECT SWITCH

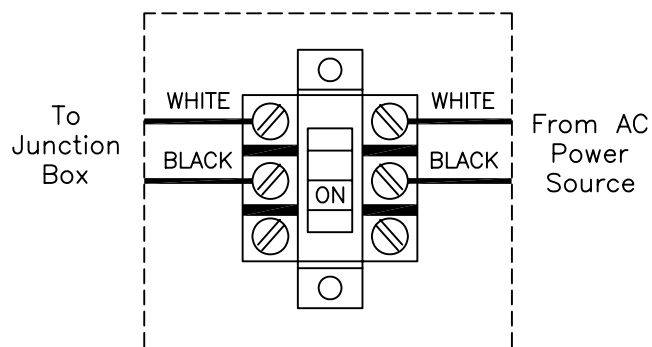
This switch is activated mechanically by the door if it travels over the set clear opening height. The mechanical part is designed to be mounted on the interior of the column and welded in place. The activator arm makes contact with the bottom door cord and pulls on the disconnect switch. See figures below.



Detail 27



Detail 28



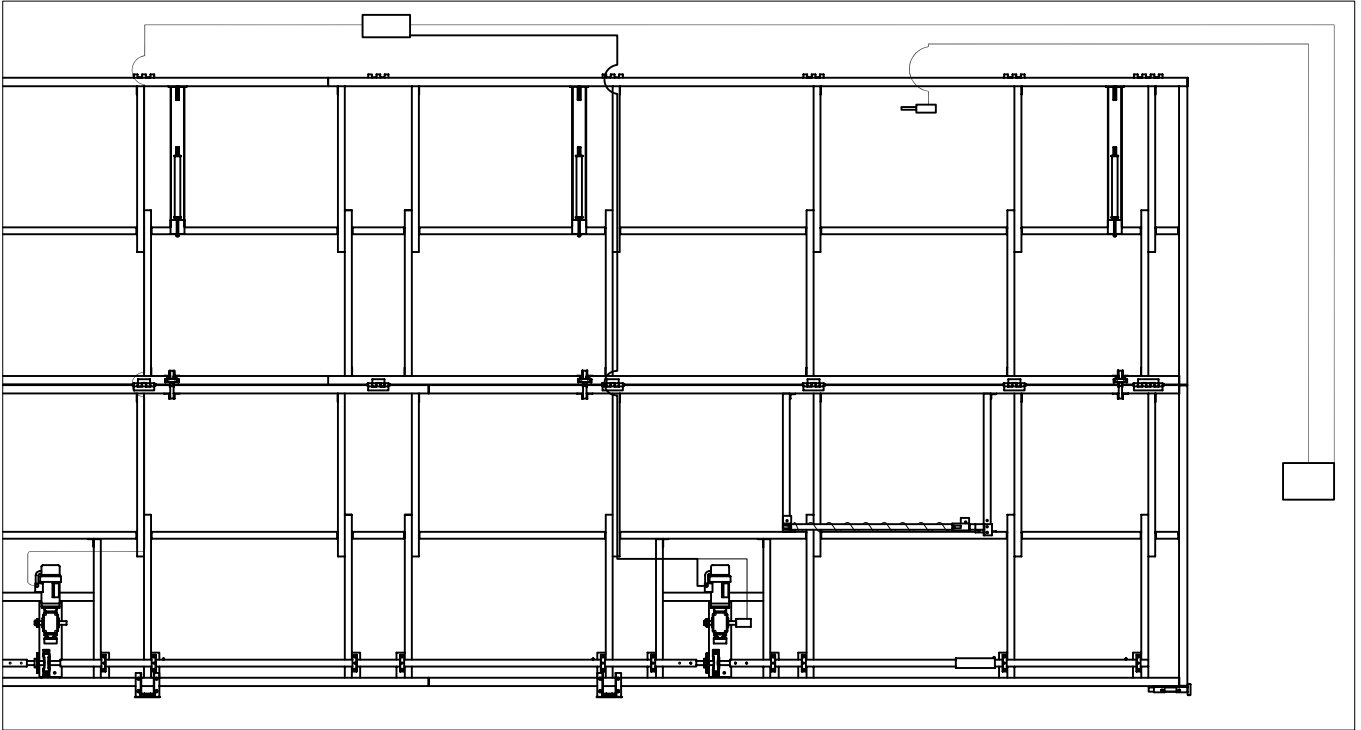
OVERTRAVEL
DISCONNECT
WIRING DIAGRAM

Detail 29

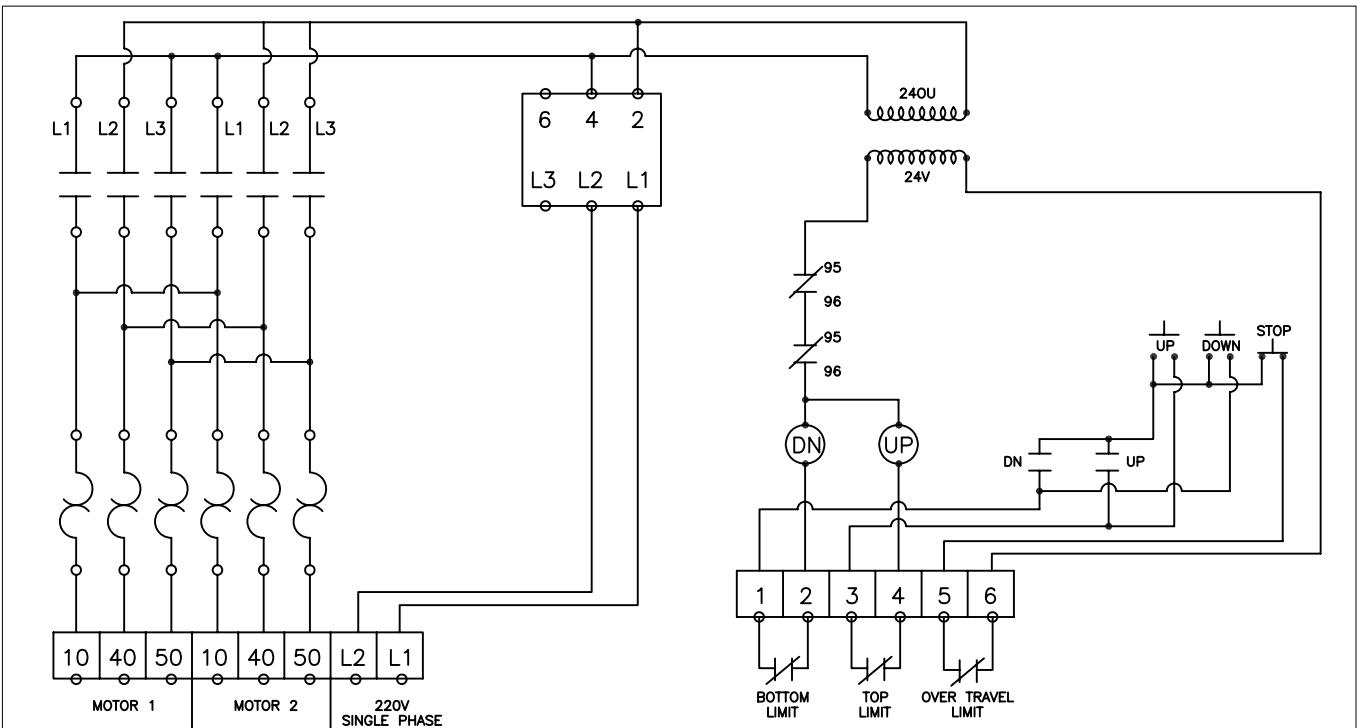
NOTE: If your door is equipped with miller edge. See page 19 for step 12.
 If your door is equipped with radio remote. See page 20 for step 12.
 If your door is equipped with both radio remote & miller edge. See page 21 for step 12.

STEP 12:

Run electric cord from the motors to top of door into junction box (by others).
 Be sure to leave a loop at the center of the door and a longer loop at the top of the door.
 Run wires (by others) from junction box to control box and hook wires into box.
 Run motors and check direction of the rotation. To check the rotation, place right shoulder on the inside of the door. The line shaft should turn clockwise for down and counterclockwise for up. Make wiring changes if incorrect. **CAUTION: CONTACT HANGAR DOOR CO. BEFORE MAKING ANY WIRING CHANGES TO AVOID VOIDING OF FACTORY WARRANTY ON THE ELECTRICAL EQUIPMENT.**



Detail 28

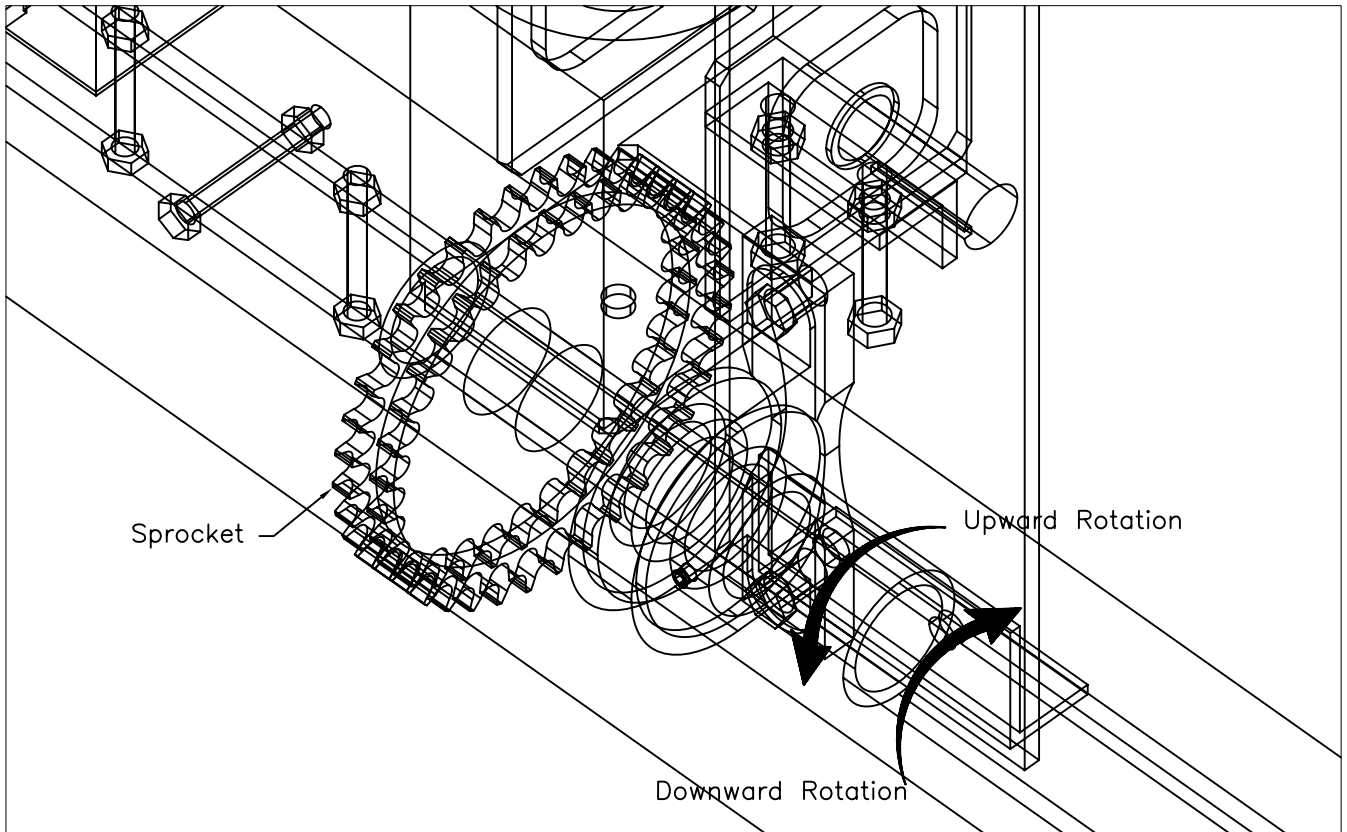


Detail 29

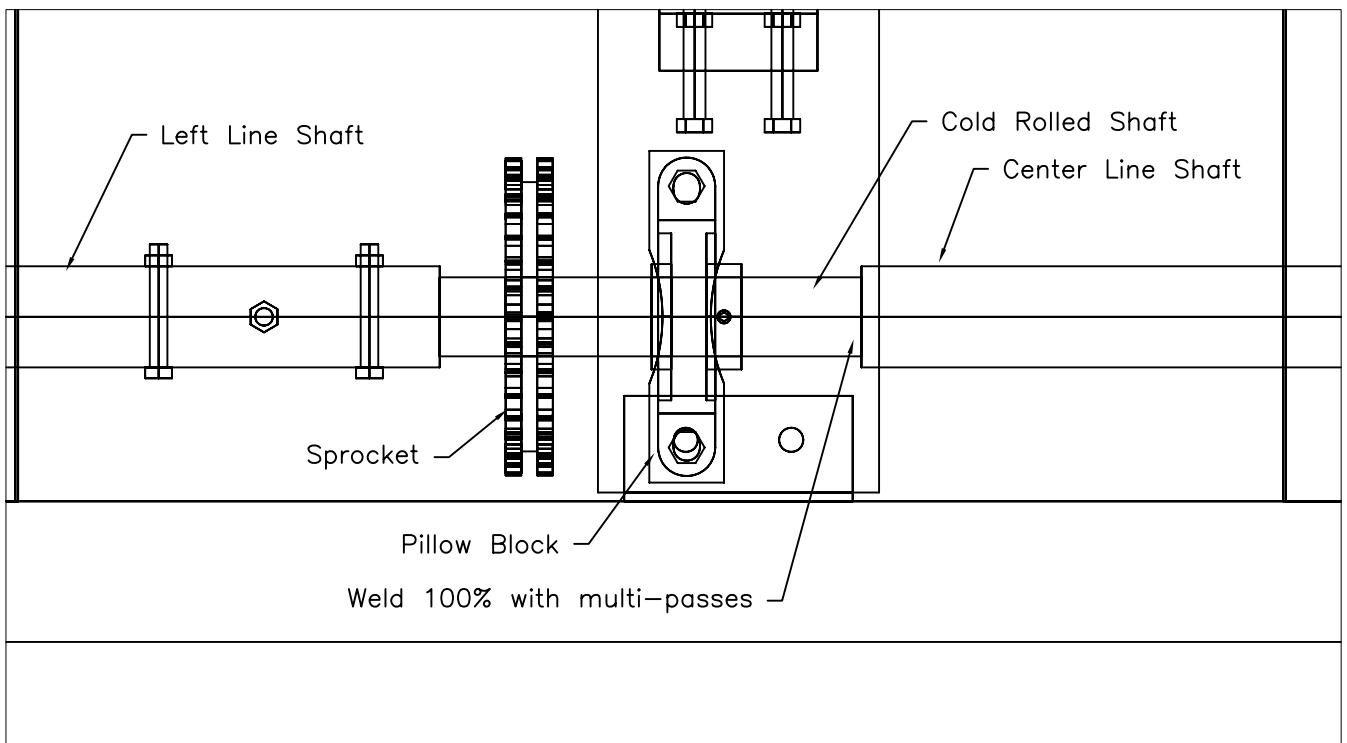
STEP 13:

12

After lineshaft is assembled and gear units have been hooked up and before installing any door cables run motors to be sure both units are driving lineshaft in the same direction as shown in detail 30. Then field weld lineshaft where it is slipped over cold rolled shaft. After shaft is field welded run operators until they shut off automatically at full down position.



Detail 30

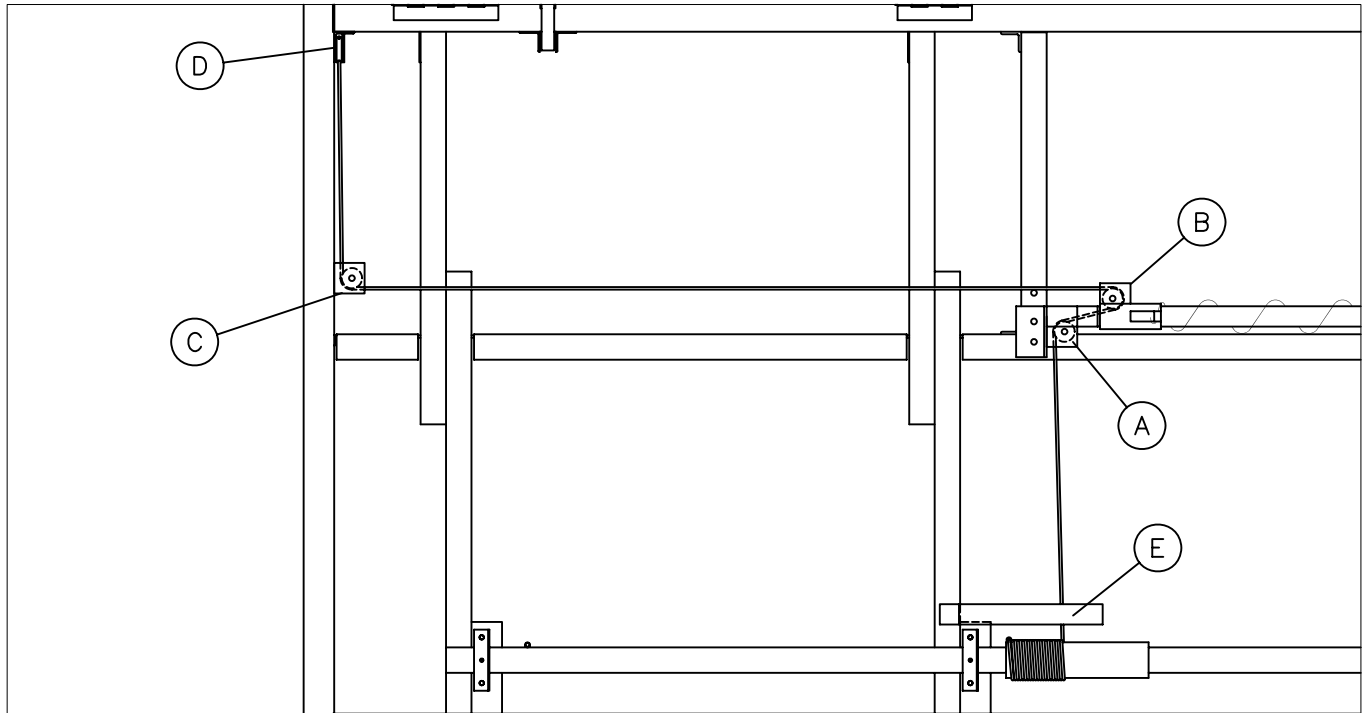


Detail 31

STEP 14:

13

Install closing Tensioner cables.



Detail 32

Important Note Prior to installing door lock cables; be sure door is at full closed position and that the down limits switch has automatically shut off.

Automatic Jamb Lock Installation Instructions

Step A: Field weld pulley bracket "C" to inside edge of end stud so that the cable will travel straight from pulley bracket "B" to the bottom edge of pulley "C". Weld pulley bracket "d" to the inside corner of the end stud as shown. When installing pulley "C", angle it slightly to direct the cable to the back of pulley "D".

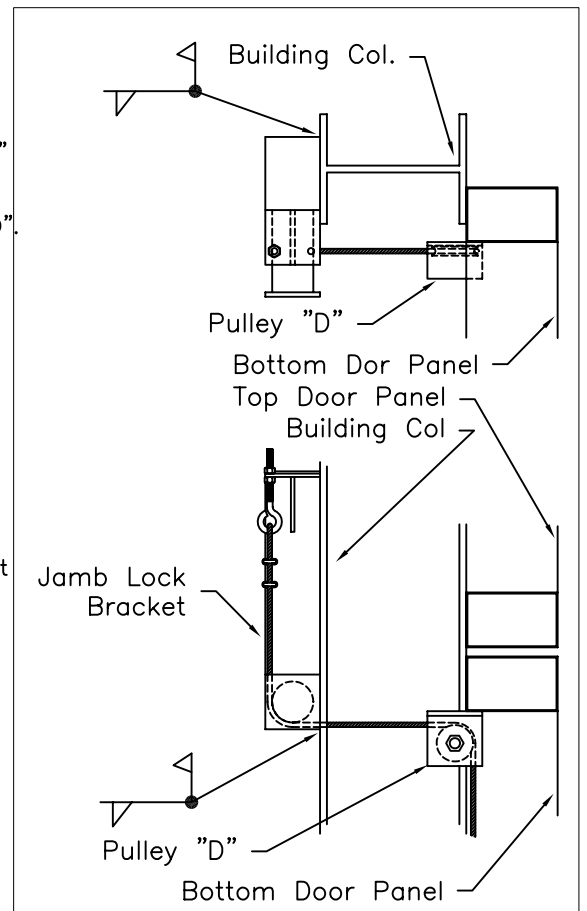
Step B: Install Jamb Lock bracket on inside surface of the jamb column as shown. Line up the eye bolt with the top edge of pulley "D". Weld to Jamb column.

Step C: Install locking cable. Pass thru pipe sleeve welded on locking cable drum on line shaft. Make correct number of wraps on the line shaft drum (see chart for correct number of wraps for your specified door height & opening clearance.) Keep cable wraps neat & tight on drum. Be sure that the cable feeds off the line shaft between the shaft & the door.

Step D: Take cable around pulley "A" then around pulley "B" on tube sleeve, around pulley "C", around pulley "D", and straight back & clamp to the eyebolt using two cable clamps.

Door Clear Opening	Number of Wraps on Drum
14'-0"	21 Full Wraps
16'-0"	24 Full Wraps
18'-0"	27 Full Wraps
20'-0"	29 Full Wraps
24'-0"	33 Full Wraps

Step E: Install ALS guard at location "E" on both sides of door approximately 1/2" above pillow block.



Detail 33

STEP 15:

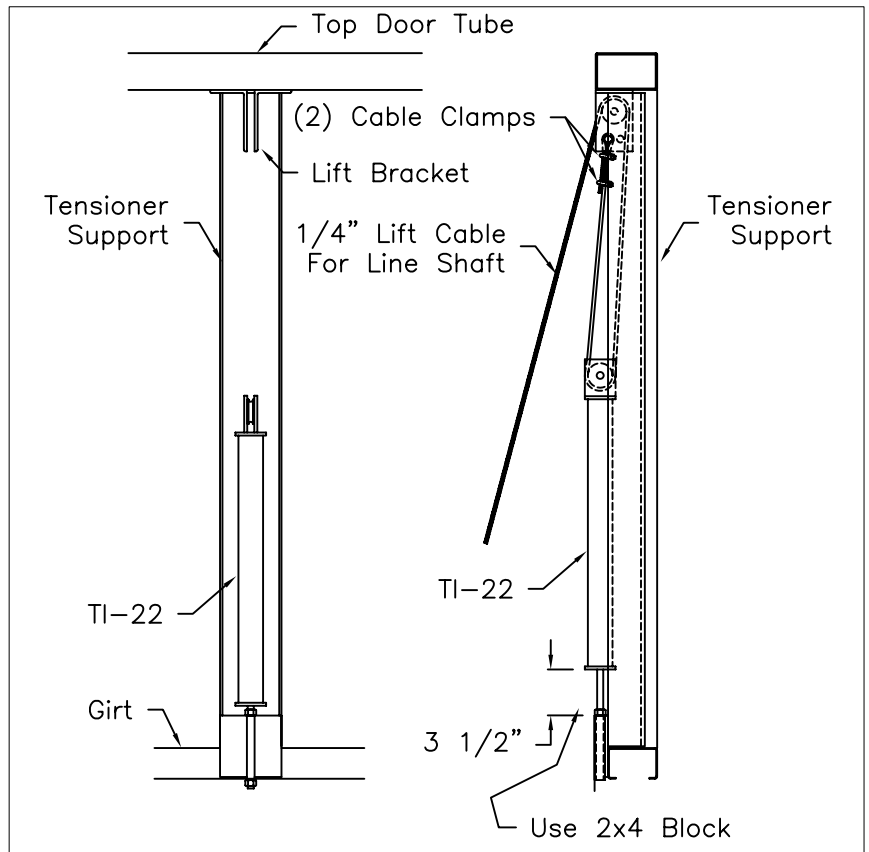
Install lift cables.

14

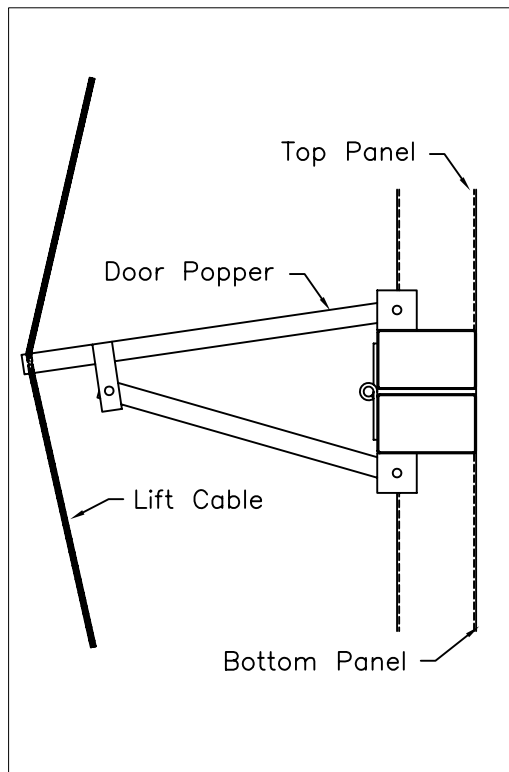
Step A: With cable Tensioner (TI-22) under no tension run one nut up to the bottom of the tensioner. Slide the TI-22 in to the bracket at the bottom of the tensioner support & place a lock washer & a 2nd nut on and tighten.

Step 2: When door is ready for cabling, pull up on the TI-22 and insert a 2x4 block under it. This will provide the 3 1/2" space needed. Next run the cable thru the cable catch on the line shaft & around the shaft to make 2-full wraps, thru the cable guard, over the door popper, thru the pulley in the lift bracket, down to the cable tensioner (TI-22), thru the pulley & back up to the lift bracket. Work the slack out of the cable, BE SURE NOT TO LIFT THE TENSIONER OFF THE BLOCK. Clamp using (2) cable clamps, remove the block from under the TI-22.

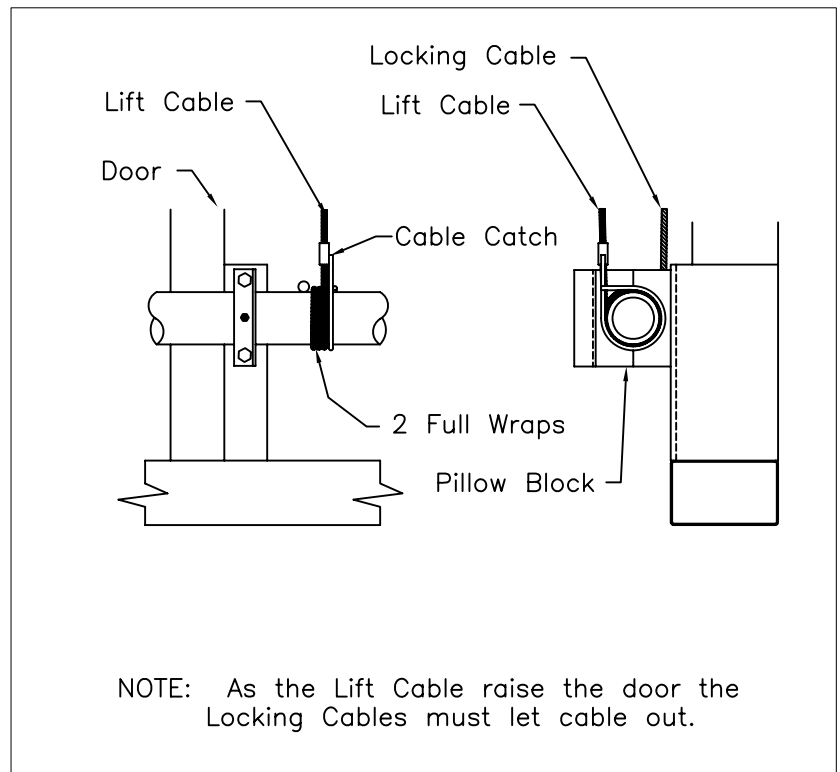
(Follow this procedure for the other tensioner. When done all the TI-22 should be 3 1/2" off the tensioner support brackets.)



Detail 34



Detail 35



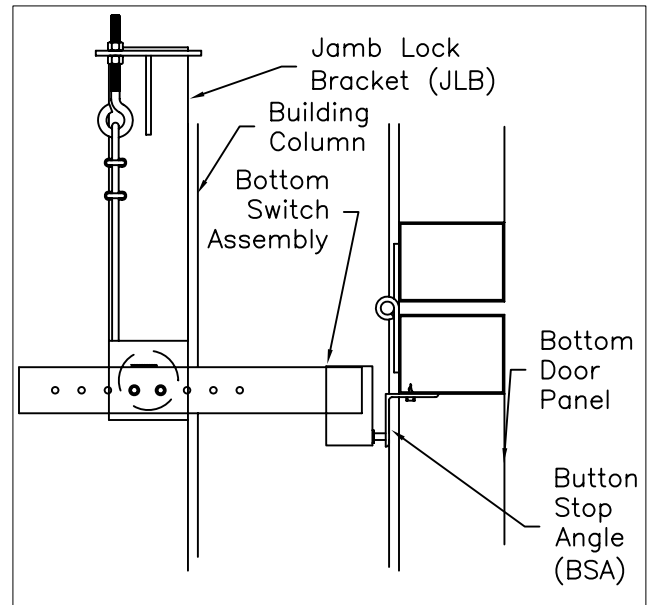
NOTE: As the Lift Cable raise the door the Locking Cables must let cable out.

Detail 36

STEP 16:

15

After cables are installed, be sure to take clamps off or brake tack welds. Adjust the lock cable so that the door is fairly snug. Install Bottom Limit Switch assembly as shown in Detail 37. Attach the Bottom Switch Angle (BSA) to the door with two (SMS) sheet metal screws. Place Switch Assembly so that the switch plunger is approximately 1/2 way depressed when the door is fully closed. Attach switch assembly to the Jamb Lock Bracket with sheet metal screws and the stitch weld in place. If it is necessary for additional adjustment, move the Bottom Stop Angle and tack weld in place.

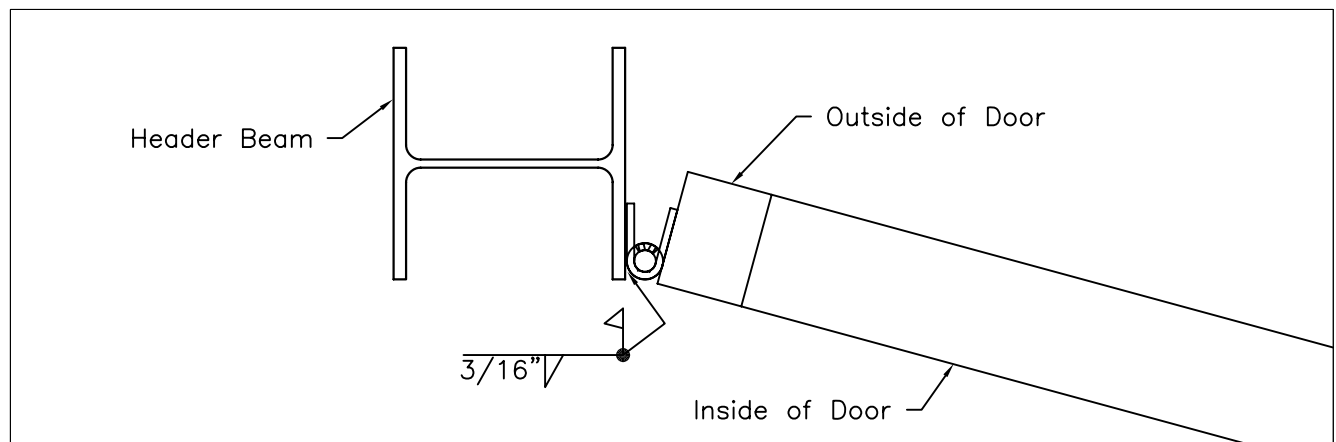


STEP 17:

IMPORTANT:

Open door and weld along the bottom edge of the hinges on the header beam.

Detail 37



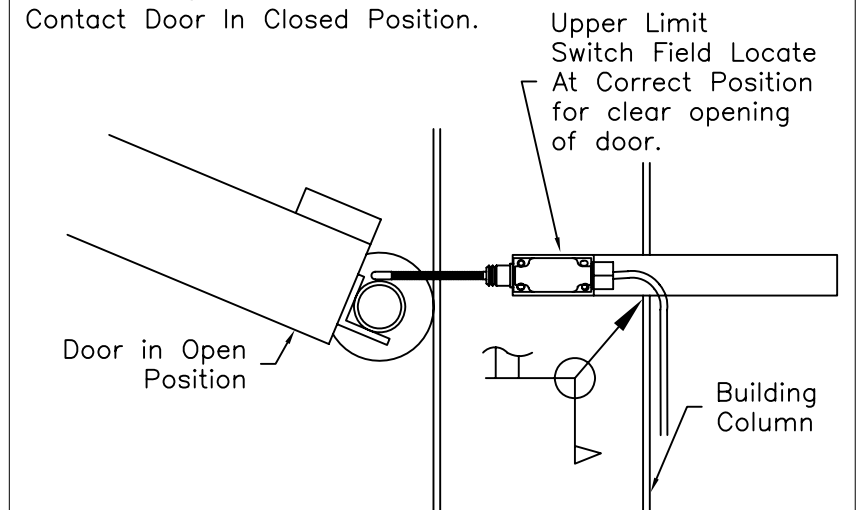
Detail 38

STEP 18:

Install Top Limit Switch Assembly (TSA) Clamp switch assembly to door column so switch contacts the door roller bracket and is clear of door keeper rod. Raise the door to the full open position (NOTE: Do not go over the full open height for the door, because this will damage the door.) Position the switch so that the top limit switch will strike the door roller bracket and is clear of the door keeper rod. When in place be sure the switch is level and weld the switch assembly to the door column. Then work door up and down several times to a height of 8 to 12 feet to check cable wrap and to see that cables are lifting even. If some cables are loose tighten cable tensioner bolt slightly to get an even lift.

Important:

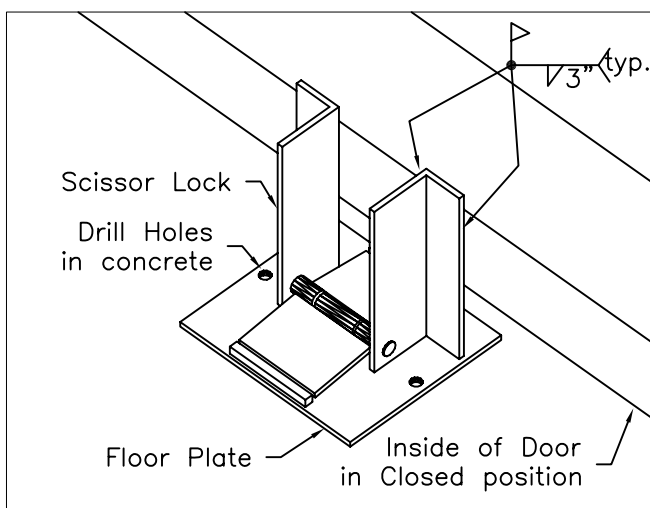
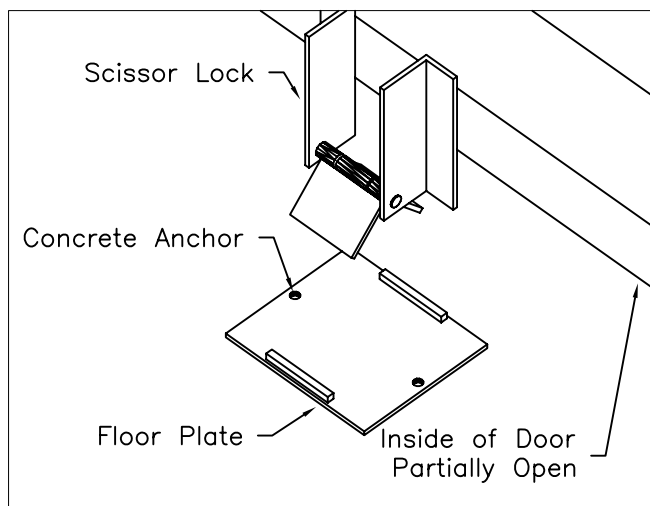
Position Cat Wisker So It Will Not Contact Door In Closed Position.



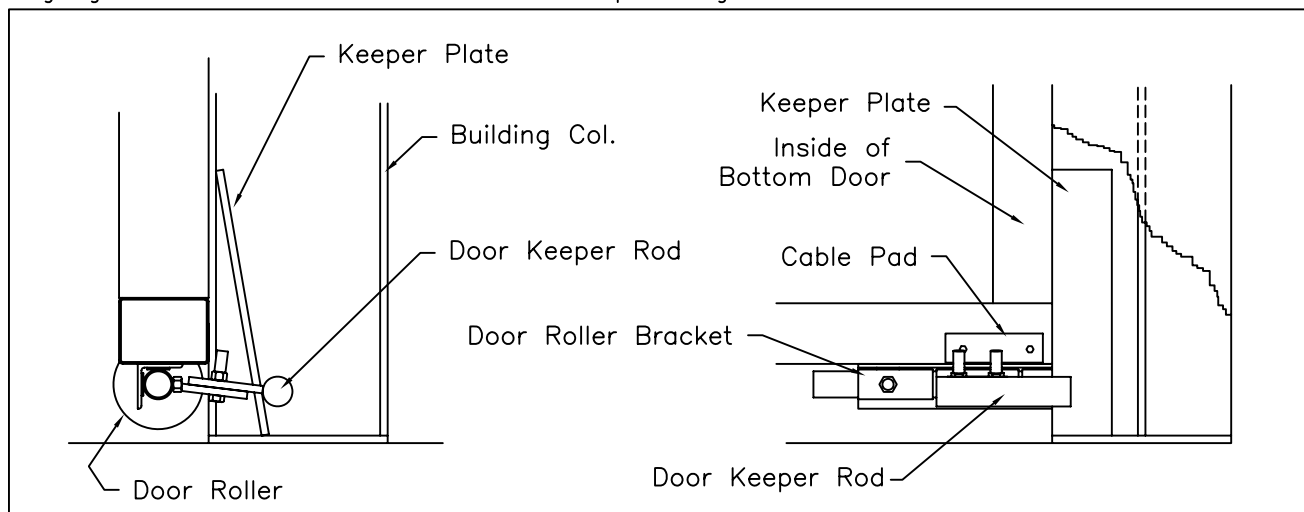
Detail 39

STEP 20:

Install door base automatic scissor locks on bottom inside of door. Field weld scissor lock angles to bottom door tube. Field drill floor plate for concrete anchors.

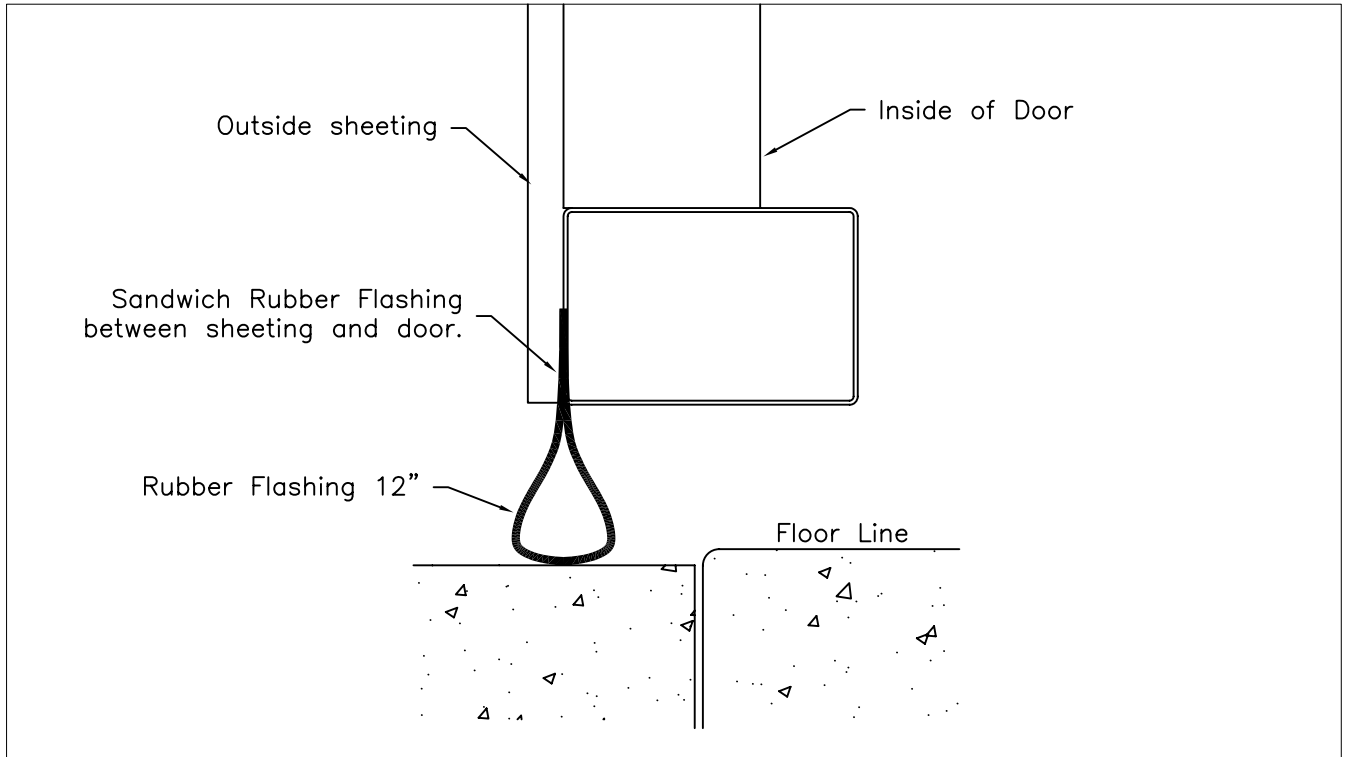
**Detail 41****Detail 42****STEP 21:**

Place keeper plate in position as shown below, tack into place. Then open door & check to make sure that door keeper doesn't bind on keeper plate. If not weld in place. Open door to locate where the cable is going to run on bottom tube and add a cable pad using sheet metal screws.

**Detail 43**

STEP 22:

Base seal installation.

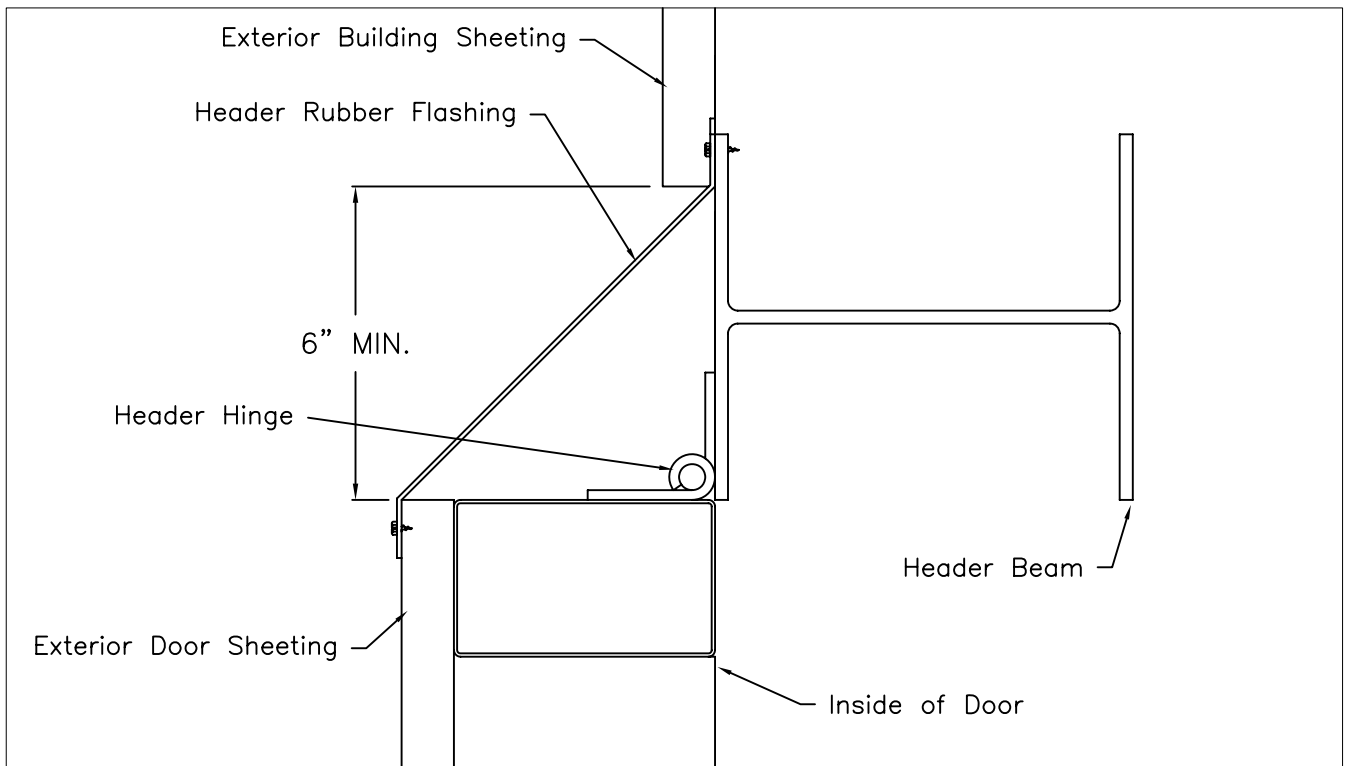


Detail 44

NOTE: If your door is equipped with a pass door, See page 17 before continuing.

STEP 23:

Door is now ready for exterior sheeting and header rubber flashing, installed at the same time.

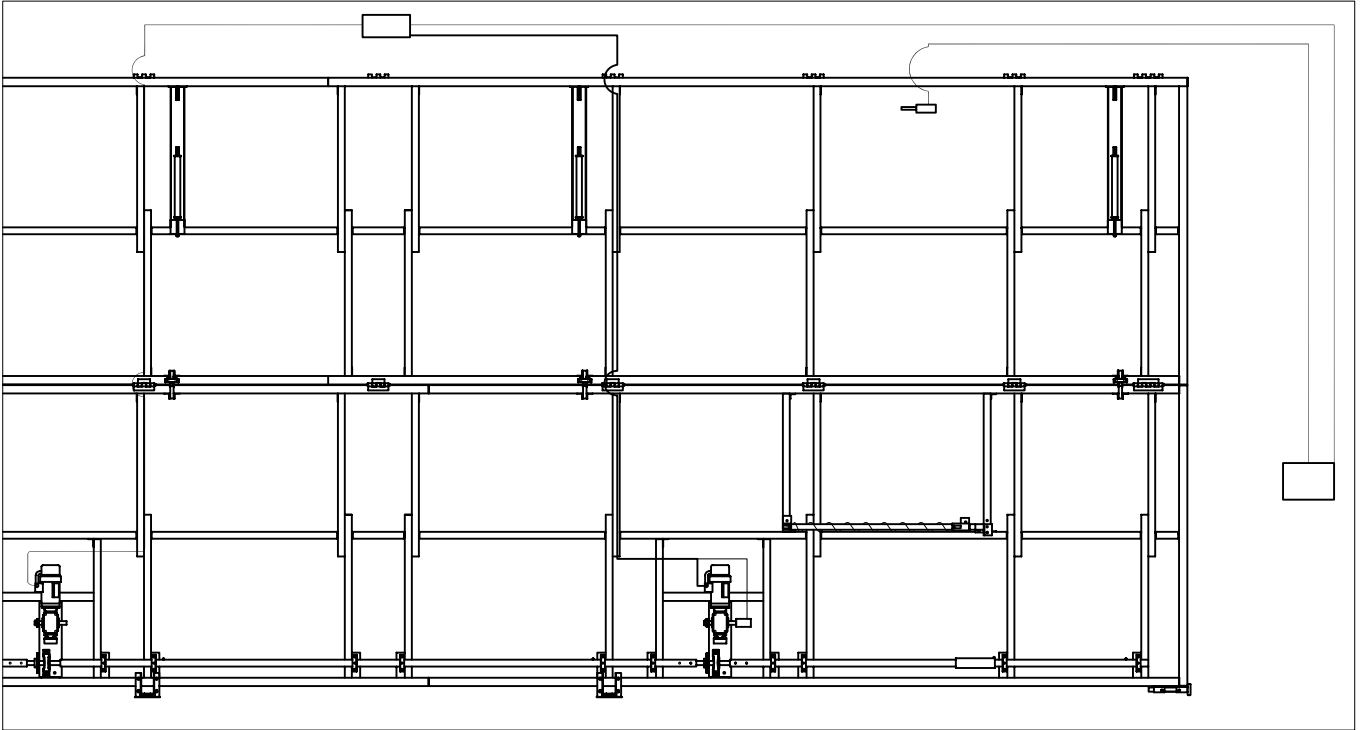


Detail 45

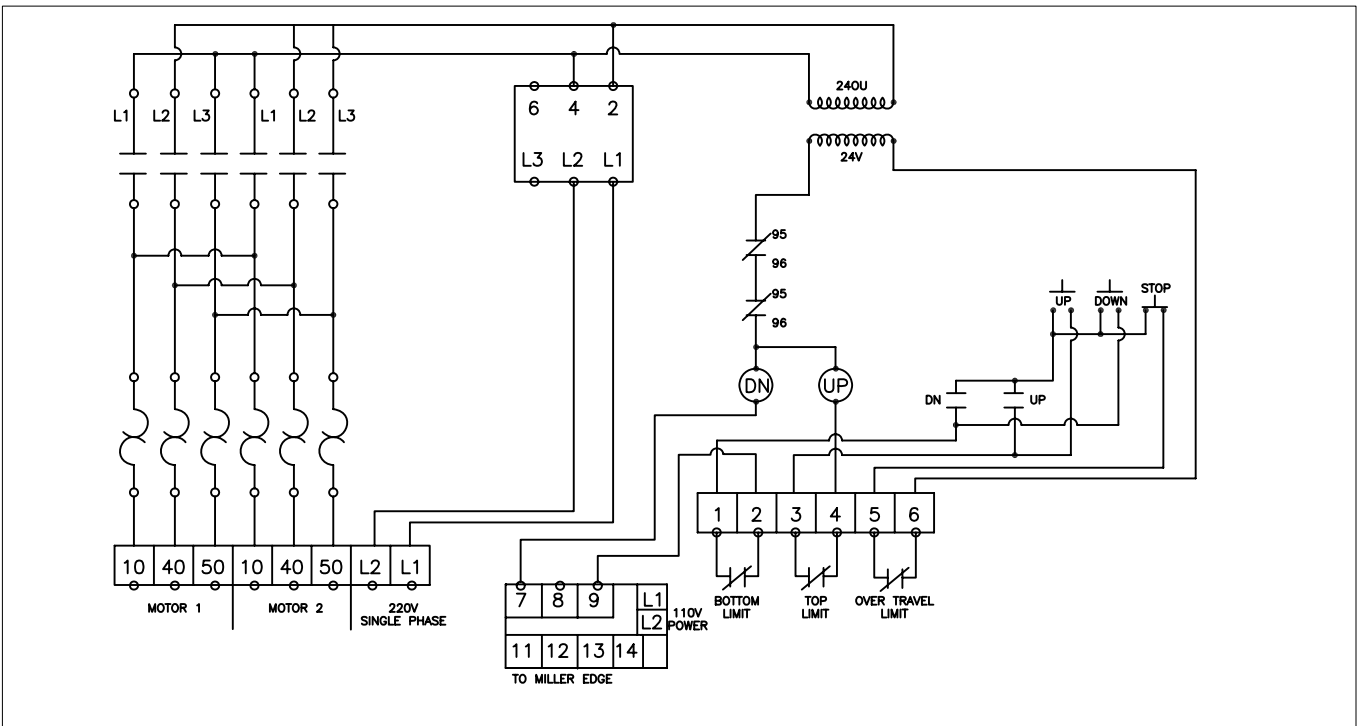
NOTE: If your door is equipped with miller edge. See page 19 for step 12.
 If your door is equipped with radio remote. See page 20 for step 12.
 If your door is equipped with both radio remote & miller edge. See page 21 for step 12.

STEP 12:

Run electric cord from the motors to top of door into junction box (by others). Be sure to leave a loop at the center of the door and a longer loop at the top of the door. Run wires (by others) from junction box to control box and hook wires into box. Run motors and check direction of the rotation. To check the rotation, place right shoulder on the inside of the door. The line shaft should turn clockwise for down and counterclockwise for up. Make wiring changes if incorrect. **CAUTION: CONTACT HANGAR DOOR CO. BEFORE MAKING ANY WIRING CHANGES TO AVOID VOIDING OF FACTORY WARRANTY ON THE ELECTRICAL EQUIPMENT.**



Detail 28

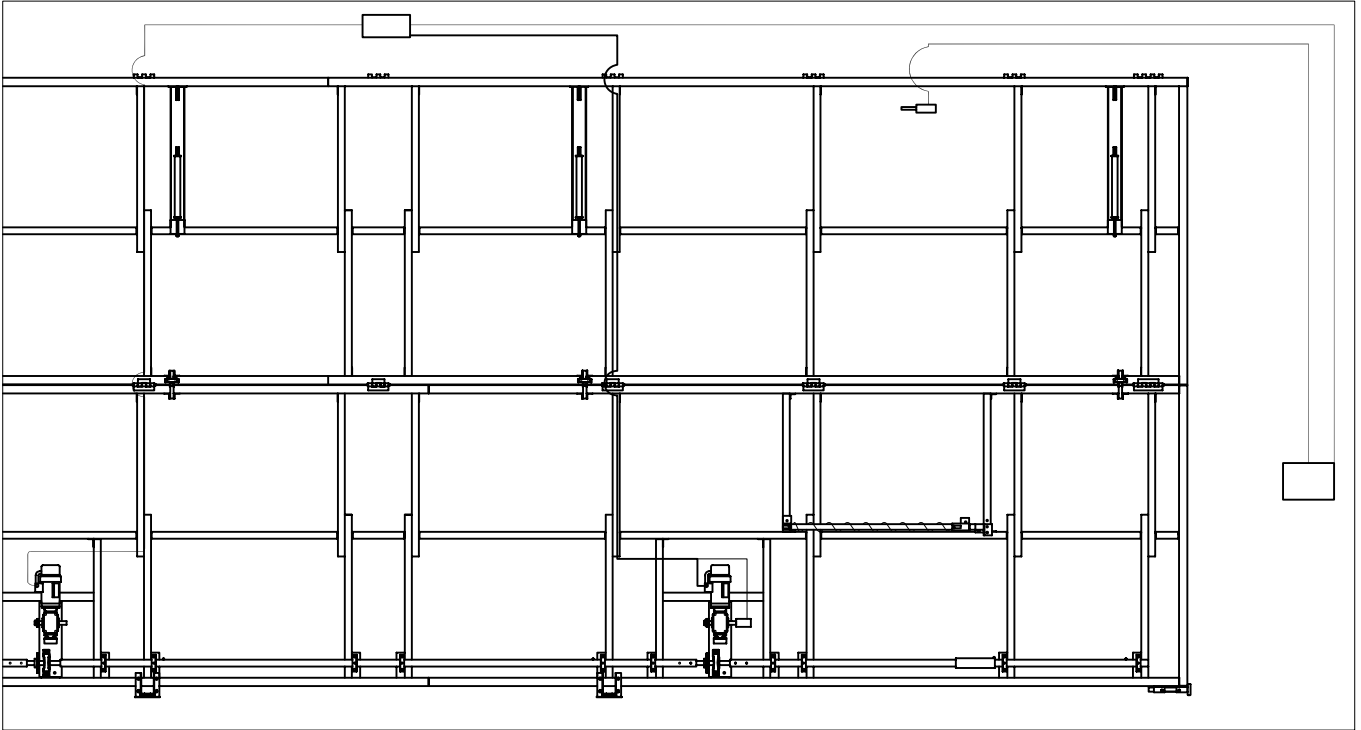


Detail 29

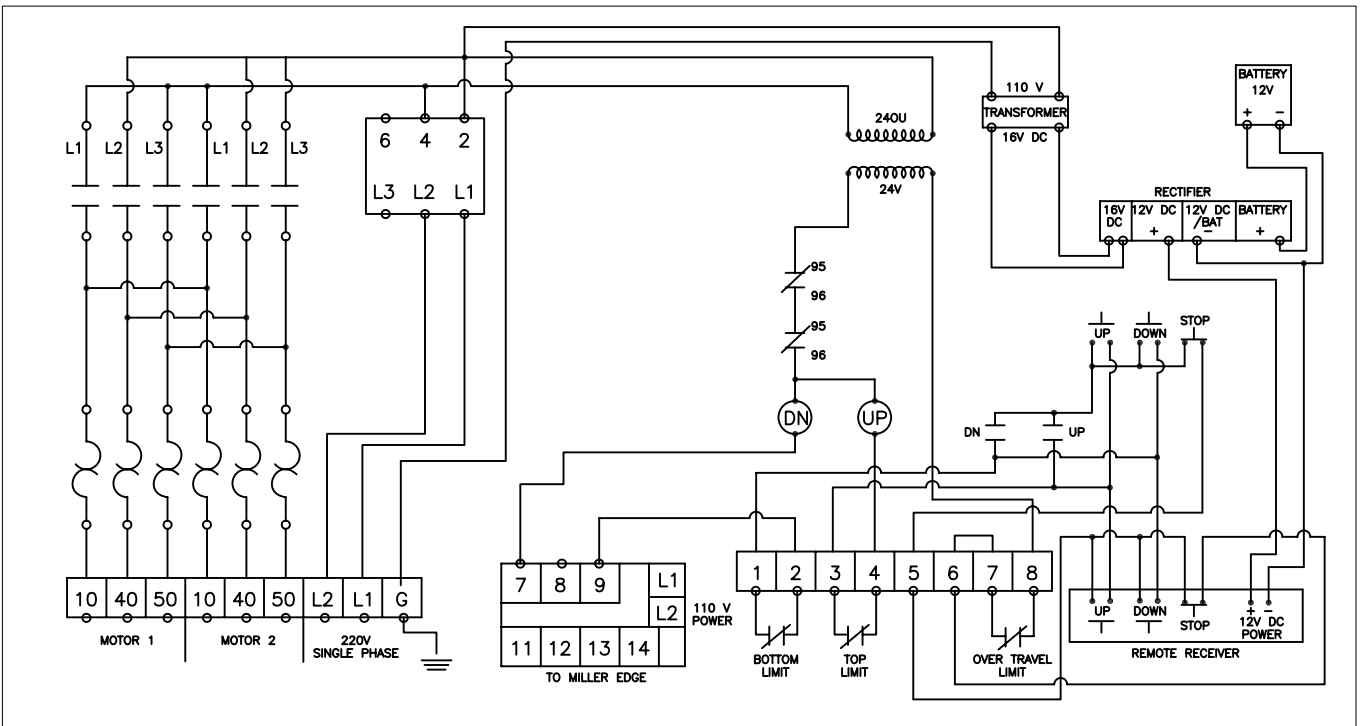
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 Run motors and check direction of the rotation. To check the rotation, place right shoulder on the inside of the door. The line shaft should turn clockwise for down and counterclockwise for up. Make wiring changes if incorrect. **CAUTION: CONTACT HANGAR DOOR CO. BEFORE MAKING ANY WIRING CHANGES TO AVOID VOIDING OF FACTORY WARRANTY ON THE ELECTRICAL EQUIPMENT.**



Detail 28



Detail 29