



INSPECTION OF MATERIALS

Upon receipt of shipment – immediately check that you have received the correct number of pieces, and that the entire shipment is intact and complete. Any damage or shortages should be noted on the freight carrier's bill of lading before signing and accepting the shipment.

Should damage or shortages be found after the shipment has been accepted notify the delivering carrier at once and confirm such notification to them in writing.

Call McKEON's Customer Service Department for the cost to replace/repair the items in question and submit this information in writing to the carrier. This forms the basis for the required freight claim.

All shipments are made F.O.B. factory, freight allowed, and it is the purchaser's responsibility to file all freight claims. McKEON will provide any necessary backup paperwork to substantiate your freight claim, but McKEON cannot file these claims for you, as ownership for the shipment determines who can and must file the freight claim.

Before beginning installation – read the Safety Summary Sheet, As-Built Shop Drawings and these Installation Instructions thoroughly. If you have any questions or concerns please contact our Technical Support Department at 800-266-9392.

INSTALLATION PROCEEDURE

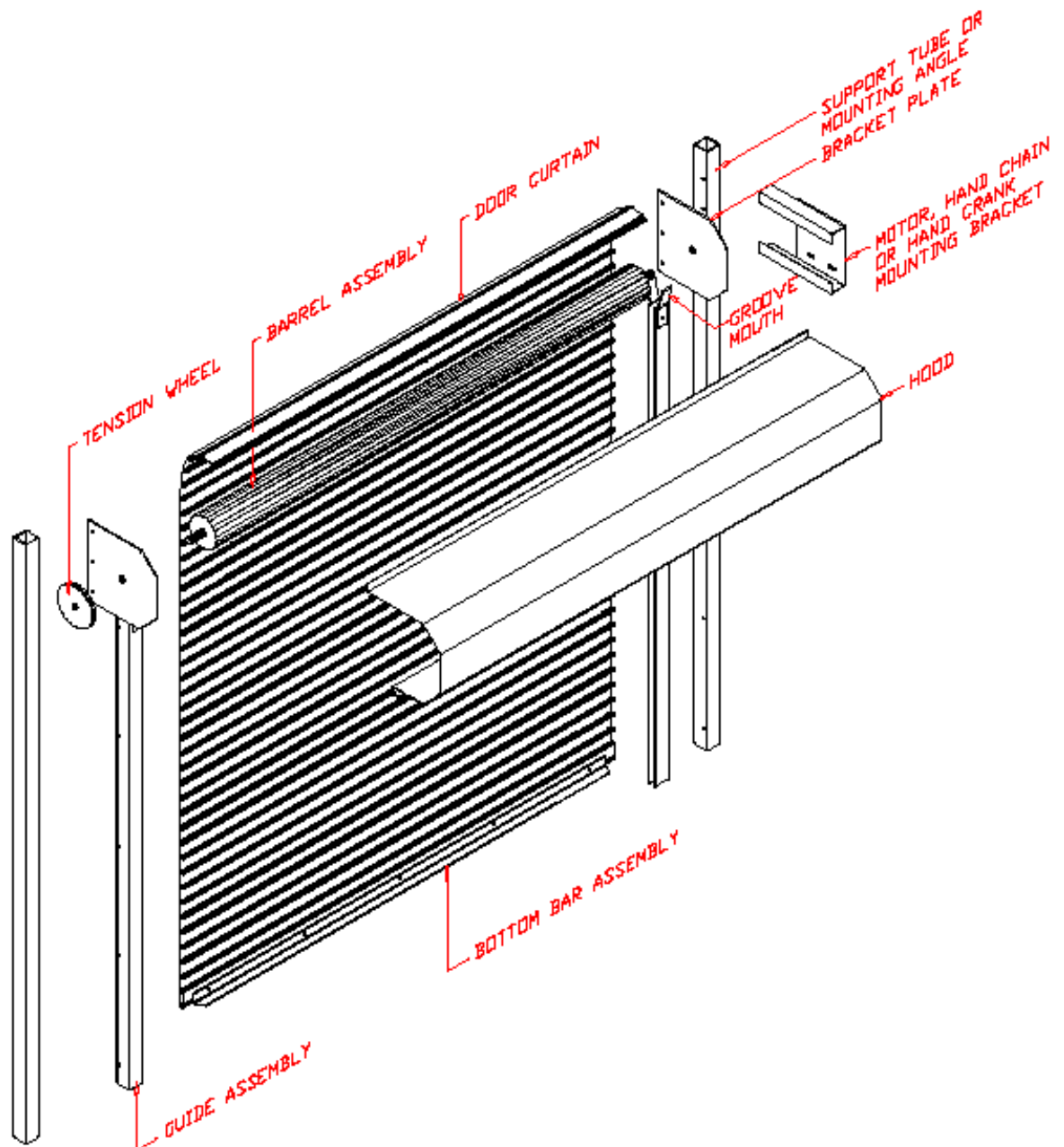
STEP 1 – A Typical Overhead Coiling Door Will Include The Following Components

- a) Door curtain, consisting of a series of insulated slats assembled and held together with endlocks, windlocks or both with a bottom bar assembly typically already installed.
- b) Two (2) sets of guide assemblies of length and configuration as indicated on the As-built shop drawings.
- c) Mounting brackets and mounting hardware.
- d) Counterbalance shaft assembly.
- e) Hood and if required fascia and hood supports.
- f) Motor operator assembly and mounting hardware.



INSTALLATION INSTRUCTIONS OVERHEAD COILING DOORS SAFESPACE SS500

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GENERAL DOOR COMPONENTS



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General Installation NOTE: The door guides may be reversible, therefore, refer to the correct back of guide to back of guide dimension as indicated on the plan detail of the As-built shop drawings. Your door may also be provided with 'additional' angles for conditions that may require between jamb mounting. If so, refer to the plan and guide details in the As-built shop drawings in order to determine the proper positioning in the opening. If you do have 'additional' angles install the guides directly to the mounting angles. Attention should be exercised to insure that the mounting angles are plumb and adequate side room clearances have been provided.

STEP 2 – Layout and Mounting Angle Installation (Refer to Figures 1A & 1B)

- Locate the center of the opening at the top of the opening. You can use a "plumb bob" to locate the center of the opening on the floor.
- Locate the back of guide to back of guide dimension as noted on the plan detail of the As-built shop drawings. **This dimension is very critical.** Mark this dimension at both the top and bottom of the opening.

NOTE – In some cases the back of guide to back of guide dimension is offset from the center line. This will also be indicated on the plan detail of the As-built shop drawings.

- Refer to the plan detail on the As-built shop drawings in order to identify which guide is for the left and which guide is for the right. Take the guide assemblies apart, stand the mounting angles against the wall and align the back of the mounting angles with the back of guide to back of guide marks that you put on the wall. Make sure the angles are plumb. Check the back of guide to back of guide mounting angle dimension, both at the top and bottom of the opening.
- Check the floor level. If the floor is not level, raise one mounting angle to compensate for the difference. The top end of each of the mounting angles should be in alignment with each other. Use a chalk line from top and bottom holes to check that all holes are in line. Mark each hole on the wall for drilling.

NOTE – Check back over steps 1, 2, & 3. McKEON cannot warranty any door that has mounting angles that are not plumb, level, or are not set at the proper distance apart.

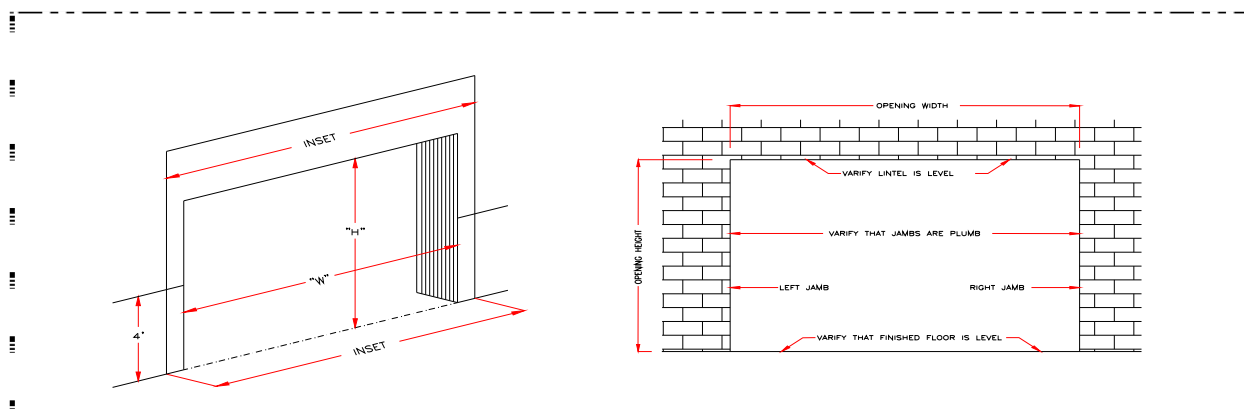


FIGURE 1A

FIGURE 1B

STEP 3 – Placement and Installation of Mounting Support Angles or Steel Support Tubes

FACE MOUNT TO CONCRETE/MASONRY APPLICATIONS (Refer to Figure 2)

- a) Drill wall bolt holes.
- b) If your door is provided with a fascia and you have determined that the fascia must be installed prior to the door itself, then install it now (some installations require that the fascia be installed between the mounting angles and the wall). Bolt both of the mounting angles into place.

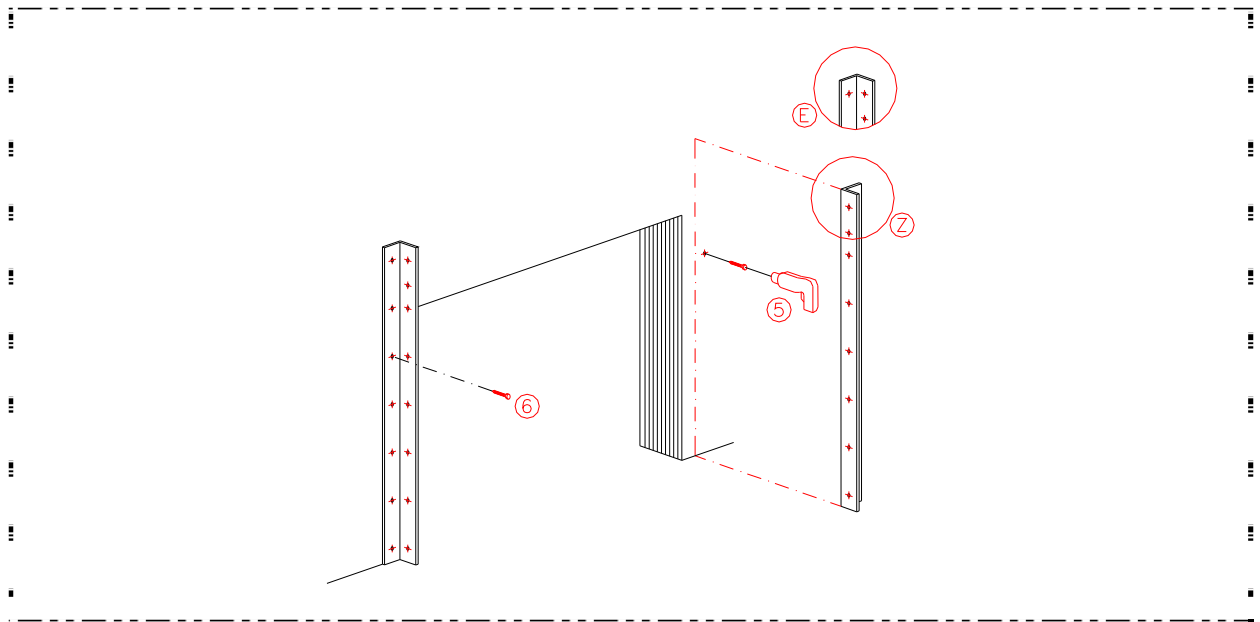


FIGURE 2

FACE MOUNT TUBES (Refer to Figure 3)

NOTE – When mounting fire doors to steel support it is important that you verify with owner or contractor that the steel support layout will be proper in accordance with the Approved Shop Drawings and the As-built shop drawings.

- a) If the door is face mounted to steel support, then install mounting angles to the steel support.
- b) Make certain to maintain the back of guide to back of guide dimensions that are indicated on the As-built shop drawings.

NOTE – If your door is provided with a fascia and you have determined that it must be installed prior to the door itself, then it should be installed now.

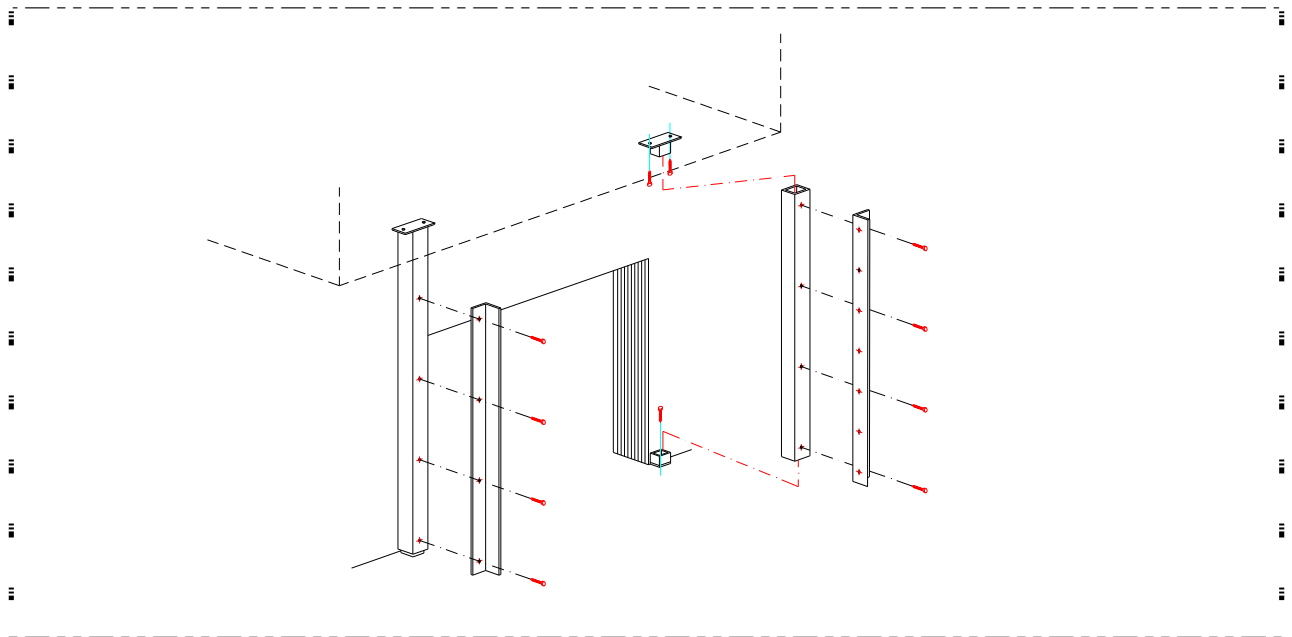


FIGURE 3

STEP 4 – Assembling Barrel Assembly & Bracket Plates

- a) When assembling barrel to the bracket plates take note:
 1. **CAUTION** – the barrel weight is not symmetrical about the centerline. The barrel is heavier on the tension side.
 2. The drive side bracket plate **HAS** a bearing in it and should be installed on the barrel drive side which **DOES NOT** have a bearing it.
 3. The tension side bracket plate **DOES NOT** have a bearing in it and should be installed on the barrel side which **HAS** a bearing in it.
- b) The barrel assembly is marked either right hand or left hand. Refer to the As-built shop drawings to determine the correct drive side.

NOTE – These instructions are based on the installer facing the coil side of the door.

- c) Install the drive side and tension side brackets onto the barrel assembly in accordance with the notes indicated in STEP 4A.
- d) The tension side bracket needs to be installed so that the tension pin retaining channel is opposite the side of the barrel assembly.
- e) The drive side bracket needs to be installed so the hub of the bearing is facing on the same side as the barrel assembly.
- f) Secure the door drive sprocket onto the drive side shaft of the barrel assembly by inserting the key into the keyway slot in the drive shaft and securing it there with the set screw located in the drive sprocket.
- g) The barrel should be snug toward the drive side bracket so it is approximately centered between the bracket plates.



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- h) The top slat of the coiling curtain is punched to match the curtain fastening screws which are located on the barrel assembly. These are the machine screws and washers that are in-line on the barrel assembly. Remove these screws and washers and save them for use in attaching the coiling curtain later.

STEP 5 – Installation of Barrel Assembly & Bracket Plates (Refer To Figures 4A & 4B)

- a) Hoist the barrel assembly and brackets up into position and bolt the brackets to the inside face of the mounting angles or steel tube supports (if between jamb mounted) using the bolts, washers, and nuts as shown.

CAUTION – use either a ‘C’ clamp or vice grips on the tension shaft to make sure the tension bracket doesn’t fall off the shaft during the hoisting.

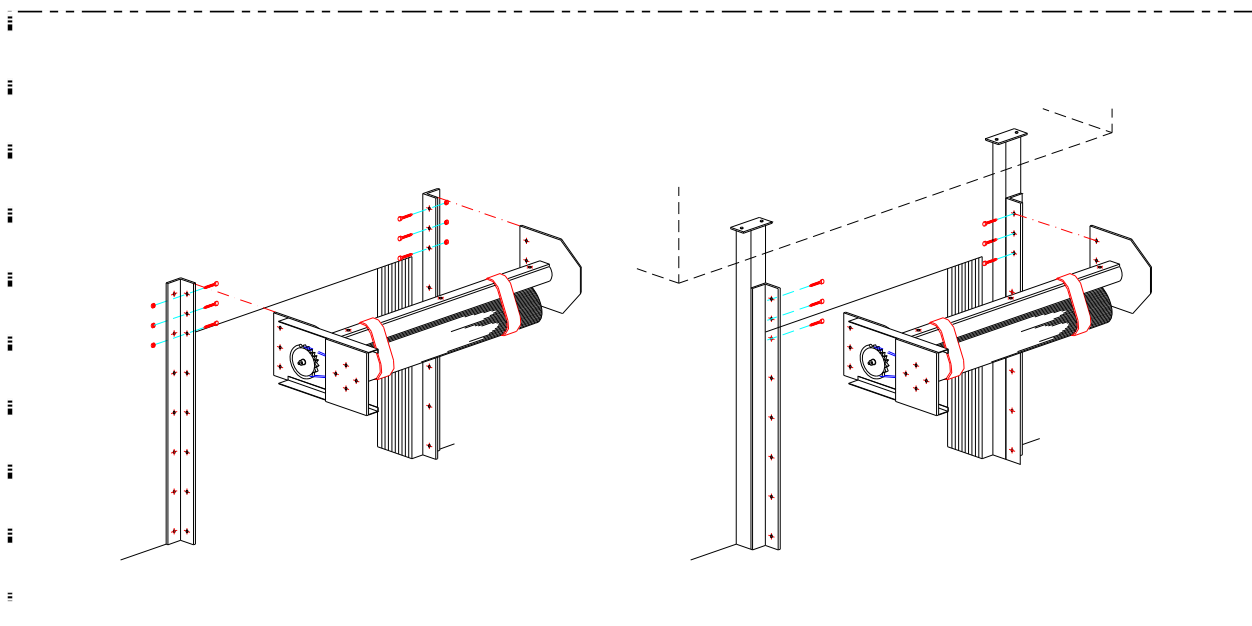


FIGURE 4A

FIGURE 4B

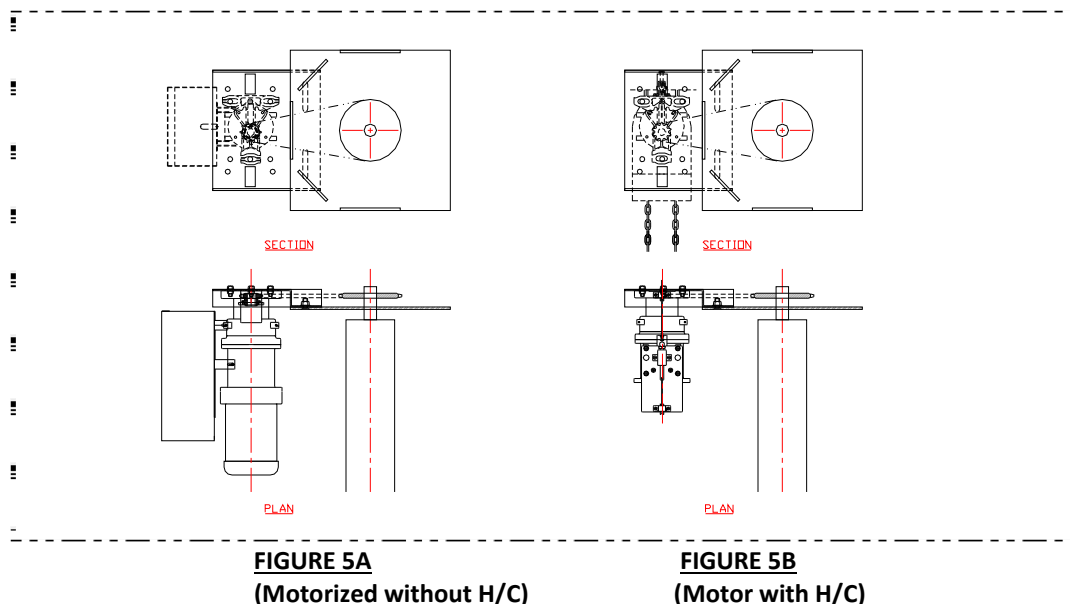
- b) After bolting the brackets to the mounting angles or steel support tubes, check to make sure there is clearance between the tension side bracket plate and the barrel assembly. It is extremely important to have the barrel assembly level and rotating freely.
- c) Level the barrel assembly by carefully raising or lowering the mounting angles.
- d) Tighten the wall bolts again and try to rotate barrel assembly to ascertain if it turns freely. If barrel assembly does not turn freely, check the installation of the bracket plates and the mounting angles to make sure that they are plumb and square.



STEP 6 – Installation of Drive Mechanism and Alignment of Gears & Sprockets (Refer To Figures 5A & 5B)

- a) Install motor operator by bolting it to the drive side bracket plate.
- b) Install the drive chain around the door drive sprocket and the drive mechanism's drive sprocket, adjust the drive chain to the proper length and connect the two ends together with the master-links and half-links that were included. Double check all bolts to make sure they are tight.

NOTE – If your door is provided with hood support(s), you may want to lay out the support(s) now and pre drill the mounting holes. An easy method for determining the line of hood across the opening is to use a chalk line from the top of each mounting angle. Be sure to measure the hood to determine the proper location of the hood support(s).



STEP 7 – Installation of the Curtain Assembly (Refer To Figures 6A & 6B)

- a) Use two or more nylon slings of equal length to hang off the barrel. These slings will be used for installing the coiling curtain. You must use slings that will safely handle the weight of the curtain assembly.
- b) Place the coiling curtain in position on the floor below the barrel,
- c) Carefully lift the curtain assembly up making sure that the top slat is pointing away from the opening and suspend it in the nylon slings approximately two feet below the barrel assembly.
- d) Slide the tension wheel onto the tension side shaft of the barrel assembly.

DO NOT place the tension pin into tension pin retaining channel to lock the tension wheel at this time.

- e) **The curtain MUST be centered between the brackets.** Raise the top slat up between the barrel assembly and the face of the wall and measure each side of the coiling curtain top slat to make sure you have the same distance between the curtain top slat and the inside face of each bracket plate.



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- f) Attach the top slat to the barrel assembly with the machine screws and washers that you had removed from the barrel assembly earlier.

Use only those screws and washers that were provided. If any other type or length of screw is used, the screws may impede the operation of the internal torsion spring assembly.

- g) Check the curtain again to make sure it is centered between the brackets.
- h) With the curtain attached to the barrel and supported by the nylon slings, begin to roll the curtain assembly onto the barrel assembly. Use the hand chain or motor operator to roll the curtain assembly around the barrel until the bottom bar hangs down approximately 3 inches below the opening.
- i) Tie the hand chain off so that to prevent the curtain from uncoiling.

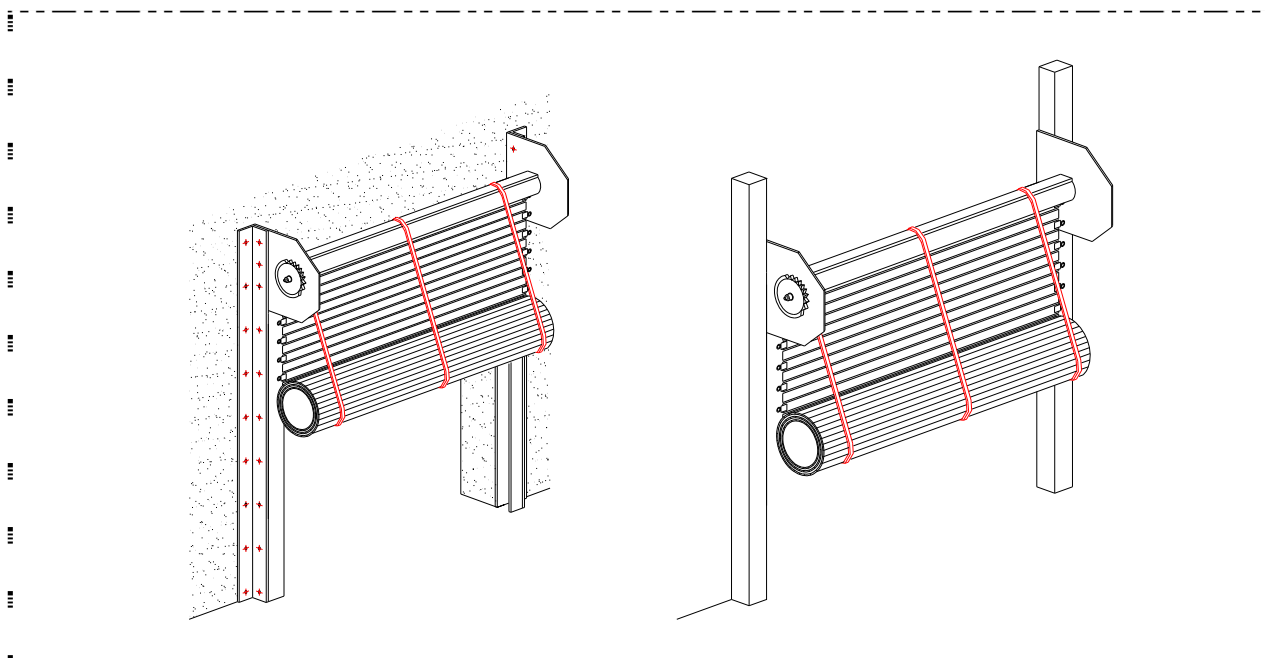


FIGURE 6A

FIGURE 6B

STEP 8 – Installation of the Guide Assemblies (Refer To Figures 7A & 7B)

- a) Attach the inside and outside angles to the inside face of the mounting angles.
- b) Adjust the guide groove mouth to accommodate for the type of slat that is used on the specific curtain assembly.
- c) Make sure that the bottom bar is in the guide groove mouth and about 3 inches below where the door stop holes are located.
- d) Install the door stops using the hardware that was provided (some doors are shipped from the factory with the door stops already installed).



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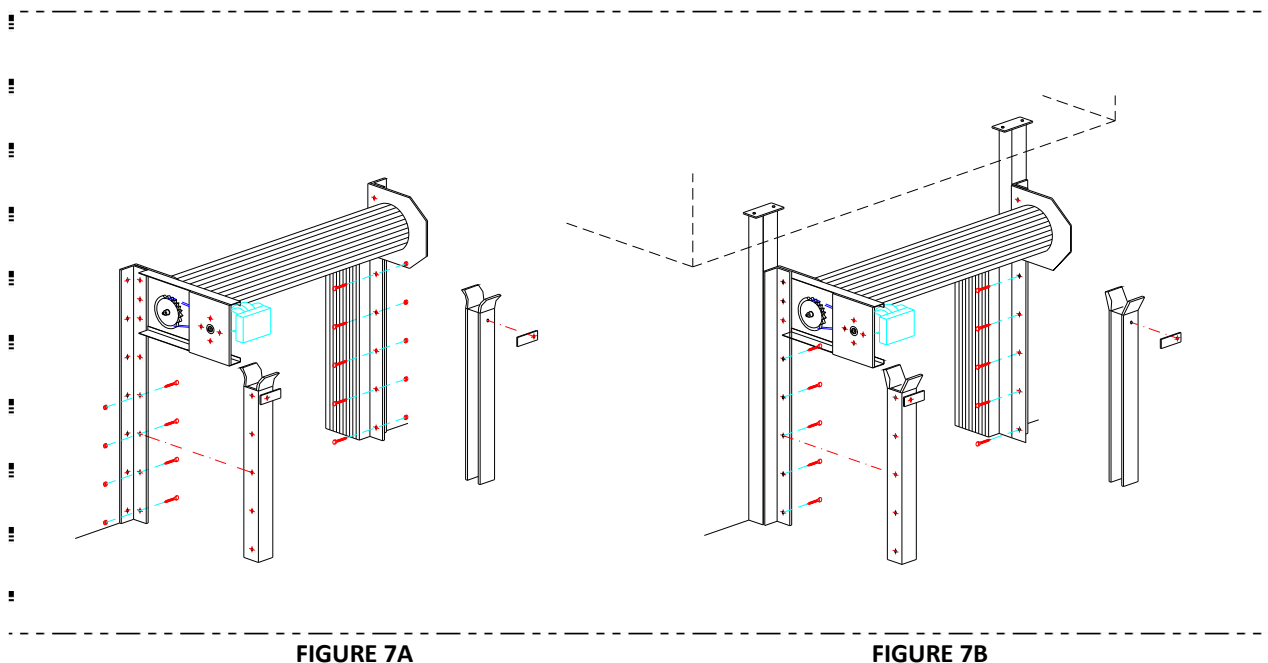


FIGURE 7A

FIGURE 7B

Step 9 – Applying Tension to the Torsion Spring Counterbalance Assembly

Note – Make certain that the ladder, scaffolding or man lift that you maybe using is secure and you have firm footing.

Motor Operated Doors

Using the tension pin and a tension bar of an appropriate size, turn the tension wheel one tension wheel “notch” at a time. Make sure to keep count of the total number of total turns added. Add tension until the bottom bar goes up to the curtain stops

CLOCKWISE DIRECTION FOR DOORS THAT ARE RIGHT HAND DRIVE

- OR -

COUNTERCLOCKWISE DIRECTION FOR DOORS THAT ARE LEFT HAND DRIVE

CAUTION – USE EXTREME CARE IN TAKING IN OR LETTING OUT TENSION. Once you have the right amount of tension, insert the tension pin into the tension pin retaining channel and make sure it is secured.

- Remove the nylon slings from the door assembly.
- If electricity is not currently available at the time of installation, adjust the limit switches so that the micro switches engage when the bottom bar is 12” to 18” from the floor and 12” to 18” below the door stops. Double check the gearing, drive chains and bolts.
- If electricity is currently available proceed to the next step.

STEP 10 – Installation of Hood & Hood Supports

- If the door is provided with hood support(s), make sure to use them. Attach each support to the wall with the appropriate hardware that was provided.
- Place the hood over the hood support and secure hood to hood support(s).



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- c) If the door hood does not include hood supports install the hood by placing each end over the bracket plate bands and securing it in place with the sheet metal screws that are provided.

STEP 11 – Wiring of Motor Operator (Refer To Wiring Diagram Inside Control Panel)

- a) Connect line voltage to the proper terminals in accordance with the instructions noted on the wiring diagram.

NOTE: Line voltage and phase must match that which is indicated on the As-built shop drawings and that which is indicated on the wiring diagram.

- b) Determine location of the control station as directed by the owner, architect or authority having jurisdiction and mount control station accordingly.
- c) Run wiring from motor operator to the control station and connect wiring in accordance with the instructions noted on the wiring diagram.

STEP 12 – Testing & Final Adjustments

- a) If the door is motor operated, check and make sure that the correct required line voltage and phase has been connected to door's motor operator.
- b) If the door is motor operated, check and make sure that the control station has been correctly wired to door's motor operator terminal strip.
- c) If the door is motor operated, prior to attempting to operate the door make sure set and adjust open and closed limit switches in accordance with the limit switch setting instructions located in the motor operator's owners manual.
- d) Operate the door to the fully open and close position to assure smooth normal operation.