# Steel Weave Grille Installation Manual

ECO# 2263 REVISION# 002

ES 10-463 DATE 08/1/2022

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#### Section – 3 Safety Check List

Rolling doors are large, movable objects. They move with the help of electric motors or manual operators (chain, crank, push up, etc), and most have springs under high tension. These items and their components can cause injury. In order to avoid injury to yourself and others, please follow the instructions in this manual.

• Review the potential hazards and preventative measures listed below:

Poter	ntial Hazard	Preventative Measure	
九	ADANGER Pinned or crushed by closing door.	<ul> <li>Keep yourself and others clear of opening while door is in motion.</li> <li>Do not allow children to play near or operate door.</li> <li>Do not operate if door becomes jammed or broken.</li> </ul>	
<b>K</b>	AWARNING Struck by adjusting wheel bar while applying spring turns.	<ul> <li>Be sure bar is adequate in strength and long enough to allow installer to apply the necessary torque.</li> <li>Make sure bar is fully seated into the adjusting wheel slot before applying pressure.</li> <li>Use two bars while applying turns to the adjusting wheel.</li> </ul>	
2	<b>AWARNING</b> Electrical shock.	<ul> <li>Make sure electrical operator is properly grounded.</li> <li>Turn off source power completely prior to servicing the motor.</li> <li>Make sure wires are clear of any moving or potentially moving parts.</li> <li>Avoid pinching wires when installing the motor cover.</li> </ul>	
Ø	AWARNING Pinched by moving components.	<ul> <li>Make sure the motor is turned off and unplugged before working with moving parts such as roller chain and sprockets, drop-out mechanisms, adjusting wheels, etc.</li> <li>Locate the possible pinch-points of the unit (Drive chain, coil area, bottom bar, etc.) Do not operate the door while someone is near these areas.</li> </ul>	

#### Table 3.1 – Potential Hazards and Preventative Measures

#### • Check the following during installation and before leaving the job site:

- 1. If the unit has tension springs, be sure the proper amount of tension is applied to the torsion springs, in order to properly counterbalance the weight of the curtain.
- 2. Securely fasten the tension adjusting wheel in place with the appropriate hardware provided.
- 3. Check that the keys and/or cotter pins have been set in place and fit properly at all sprockets or gears.
- 4. Check that the setscrews in each sprocket or gear (one over the key and one offset from the key) have been tightened properly.
- 5. Check all fasteners holding the unit to the building structures.
- 6. Check all fasteners used to assemble the components of the unit together.
- 7. Instruct owner or representative in the proper method of operating the door.

#### Section – 4 Freight Receiving

- Upon delivery, check condition of components for damage.
- If damage occurred in transit, the installation should not proceed without authorization.

## NOTICE

If the installation proceeds, neither the carrier nor the manufacturer will assume responsibility for replacing the damaged material.

#### • If the installation is stopped due to damage, do the following:

- 1. Take pictures of the damage.
- 2. Do not move material from point of delivery to other premises once the damaged components are discovered.
- 3. Do not unpack, if the damage is visible prior to removing packaging, until an inspection is made.
- 4. If the damage is found while removing contents from packaging, the packaging material must be saved until inspection is made.
- 5. Container and packaging should be retained by consignee until inspection is made.
- 6. Have components inspected by carrier's representative within 15 days from date of delivery.
- 7. Consignee must obtain a copy of the Inspection Report.

#### Returning damaged components:

- 1. Obtain permission from carrier to return.
- 2. Route the return shipment via the identical carrier(s) involved in the original shipment.
- 3. Notify the manufacturer when shipment is returned to manufacture plant.

#### • Verify that all components have arrived. Look for the following:

- 1. Job construction drawings featuring different views (elevation, section, plan, etc.)
- 2. (2) Guide assemblies
- 3. Curtain and Barrel assembly
- 4. Bracket assemblies
- 5. Operator; if not attached to bracket
- 6. Operator cover; may not be included in order
- 7. Adjusting wheel; if the barrel assembly contains springs
- 8. Hood and hood supports; may not be included in order
- 9. Hardware
- 10. Misc. items (Reelite, lintel seal, hood baffle, etc.)
- 11. Verify material/finish/color of components matches what is listed on the job construction drawings and/or what was ordered.

#### If the delivery is incomplete:

- 1. Make note on delivery receipt.
- 2. Note should be verified by driver's signature.
- 3. Notify carrier and manufacturer.

#### Section – 5 Pre-Installation

- Read entire instruction manual thoroughly. The manufacturer will not be held responsible for any charges incurred due to improperly installed components.
  - a. Only trained door systems technicians should perform installation, maintenance, etc.
  - b. Each unit comes with an individual item number. If the job contains multiple units, be sure to locate all the components for each item and separate each.

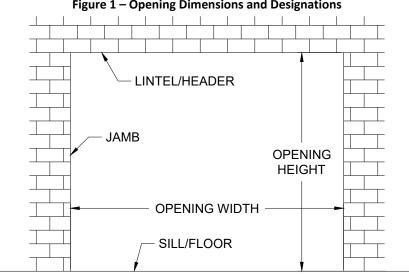
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**<u>Do not</u>** interchange parts from one door to another.

- c. Find the job construction drawings for the unit being installed and check the dimensions of the opening against those on the drawings. See Figure 1 below.
- d. If the opening dimensions differ from those on the drawings, do not proceed, check with distributor/manufacturer to be sure the correct door is being installed.
- e. Check the jambs of the opening for plumb. Check the head/lintel and floor for level.
- f. If your guides are embedded please contact the Service Department at 1-800-233-8366 for additional warning labels to be applied to finished wall. Ask for "Safety Instruction Labels."

#### Work Area:

- a. The key to a smooth installation is a clean and well-prepared work environment. Once the components have been inspected and the job construction drawings have been reviewed; lay out the components in the order of installation.
- b. The opening for the door should be cleaned and inspected for rough surfaces and construction debris.
- c. Lastly the mounting hardware supplied with the door should correspond with the surface and construction features of the opening.
- d. The basic assembly sequence is as follows: fascia hood plates, shaft support brackets, guides, barrel assembly (brackets and tube motor), curtain, bottom bar, and hood.



#### Figure 1 – Opening Dimensions and Designations

### Section – 6 Torque Specifications

Table 6.1 – Torque Recommendations for Guide Assembly and Wall Fasteners

Bolt size/type	Torque (ft lbs) <sup>a</sup>	
10-32	2.5	
1/4-20	6	
5/16-18	25	
3/8-16	20	
1/2-13 Grade 5 steel bolt	75	
1/2-13 Grade 8 steel bolt	107	
5/8-11 Grade 8 steel bolt	212	
3/4-10 Grade 8 steel bolt	376	
<sup>a</sup> The recommended torque for steel bolts is based on a		
plated bolt that has not been lubricated.		

Table 6.2 – Torque Recommendations for Solid Masonry Wall Anchors

	Manufacturer/Torque (ft lbs) <sup>a</sup>			
Anchor Size (nominal)	Simpson Wedge-All	Redhead Trubolt		
3/8	30	25		
1/2	60	45		
5/8	90	90		
3/4	150	100		
<sup>a</sup> Torque values for grout filled block are different, reference bolt manufacturer for these values.				

#### Section – 7 Installation

#### Installation Overview

#### • Stainless Steel Face of Wall:

- **1.** Mount coil side guide per Figure 4, page 10.
- 2. Mount hood fascia (if required) per Figure 34, page 43.
- 3. Mount wall bracket and hood support (if required) per Figure 7, page 14.
- **4.** Assemble curtain/shaft/bracket assembly to wall bracket per Figure 6 through Figure 8 (pages 12 13) and ensure curtain is centered between brackets
- 5. Mount coil side guide per Figure 23, page 29.
- 6. Set curtain limits.
- If hoods are required, install coil side hood supports per Figure 33 and install hoods per Figure 36 through Figure 42 (pages 42 - 48)

#### Stainless Steel Between Jambs:

- 1. Mount tubes per Figure 9 through Figure 12 (pages 16 19)
- 2. Mount coil side guide to tube per Figure 13, page 20
- 3. Mount hood support (if required) per Figure 33, page 42
- **4.** Assemble curtain/shaft/bracket assembly to wall bracket per Figure 15 through Figure 21 (pages 22 27) and ensure curtain is centered between brackets
- 5. Mount fascia side guide per Figure 24, page 30
- 6. Set curtain limits
- 7. If hoods are required, install per Figure 36 through Figure 42 (pages 42 48)

#### Aluminum Face of Wall:

- 1. Mount guide per Figure 5, page 11
- 2. Mount hood fascia (if required) per Figure 34, page 43
- **3.** Mount wall bracket and hood support (if required) per Figure 8, page 13
- **4.** Assemble curtain/shaft/bracket assembly to wall bracket per Figure 15 through Figure 21 (pages 22 27) and ensure curtain is centered between brackets
- **5.** Reinstall removable bellmouth per Figure 25, page 31
- 6. Set curtain limits
- **7.** If hoods are required, install coil side hood supports per Figure 33 and install hoods per Figure 36 through Figure 42 (pages 42 48)

#### Aluminum Between Jambs:

- **1.** Mount guide per Figure 14, page 21
- 2. Mount wall bracket and hood support (if required) per Figure 8, page 13
- **3.** Assemble curtain/shaft/bracket assembly to wall bracket per Figure 15 through Figure 21 (pages 22 27) and ensure curtain is centered between brackets
- 4. Mount hood support (if required) per Figure 33, page 42
- 5. Reinstall removable bellmouth per Figure 25, page 31
- 6. Set curtain limits
- 7. If hoods are required, install per Figure 36 through Figure 42 (pages 42 48)
- Manual Locking:
  - 1. Complete assembly before attaching hoods. See Figure 27 to Figure 32 (pages 36 41).

Determine which guide assemblies the unit has from the job construction drawings and compare to the diagrams below.

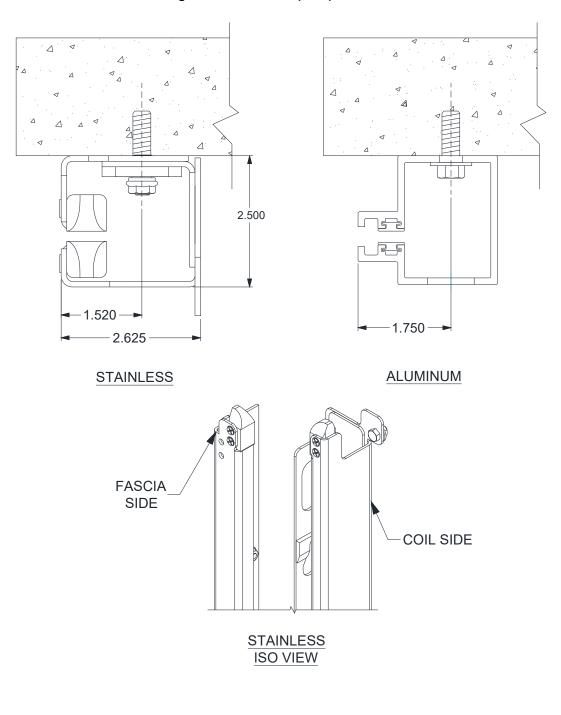
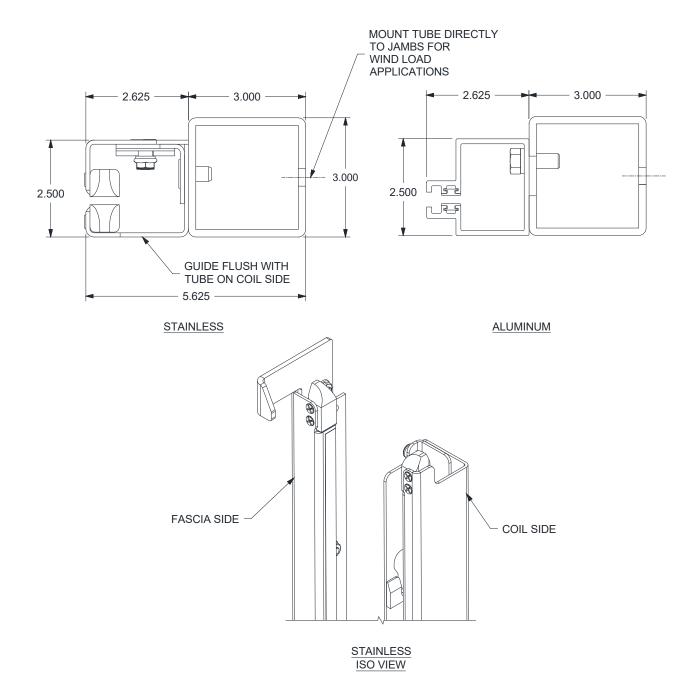


Figure 2 – Face of Wall (FOW)



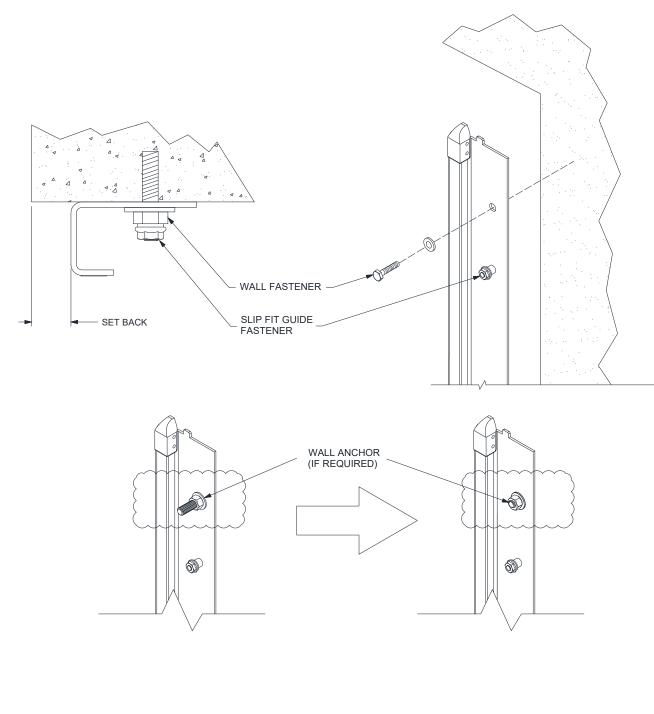


#### Guide Installation - Face of Wall (FOW) Units

- Fascia Side Guide installation:
- 1. Stainless guides are 2 piece slide fit construction. For FOW units, the fascia side guide mounts first.
- 2. If Wall anchors are required cut the threads down to the nut after tightening.

Note: Do not remove UHMW tape on guide flanges where curtain travels.

Figure 4 – Fascia Side Guide installation (Stainless Steel)





3. Aluminum guides are 1 piece and mount directly to the wall.

# Figure 5 – Aluminum Guide installation (FOW) L -بلك WALL FASTENER SET BACK 6)

4. Measure the wall opening and specified set back. This distance is referred to as the "Distance between Guides". Place mark on the floor at measured location. Check the distance between these marks and compare with the job construction drawing.

# NOTICE

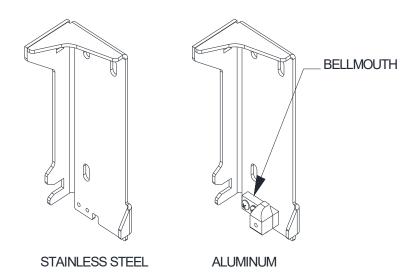
If the measurement does not equal the dimensions on the job construction drawings, STOP. Check the guide dimensions against those on the job construction drawings to be sure the correct guides are being installed. If so, repeat previous step and re-check.

- 5. Scribe a plumb line on the wall from the marks on the floor.
- 6. Place the fascia side guide face against the scribed line, check the top of the guide for level, and mark the location of the wall fastener mounting holes.
- 7. Drill mounting holes for the wall fasteners and fasten the guide with the hardware provided. Check the job construction drawings for the wall fastener required. Tighten the wall fasteners to the recommended installation torque in *Torque Specification Tables* in Section 6.

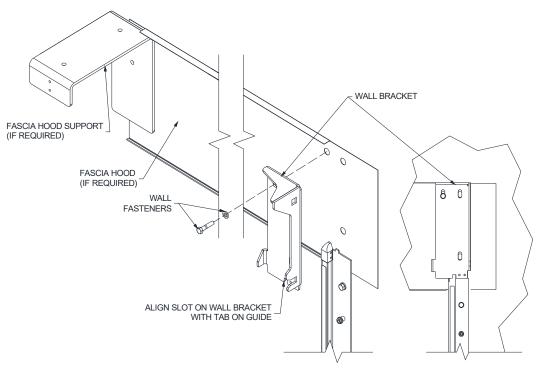
#### Wall Bracket Installation

- 1. Place the wall bracket on top of the already mounted coil side guide. Ensure slot on wall bracket aligns with tab on guide. Check wall brackets for level, and mark the location of the wall fastener mounting holes.
- 2. Drill mounting holes for the wall fasteners and fasten the wall bracket with the hardware provided. Check the job construction drawings for the wall fastener required. Tighten the wall fasteners to the recommended installation torque in *Torque Specification Tables* in *Section 6*.

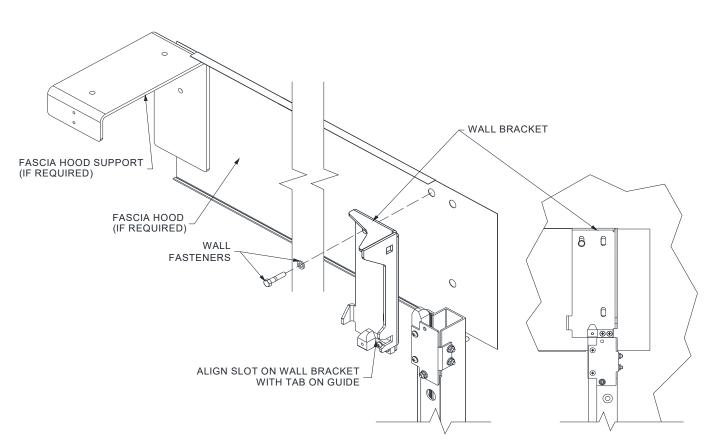












**Note:** Check to see if a hood support will be required. If so, refer to the "**Hood Support Installation**" section before proceeding to the barrel and brackets.

#### Guide Installation - Between Jamb (BJ) Units

- 1. BJ guides mount to 3" X 3" tubes. The tubes can either mount directly to the jamb or to saddles. For wind load applications, tubes must attach directly to jambs.
- 2. For tubes attaching directly to jambs (wind load):
  - a. Measure the "*Opening Width*", or the distance between jambs, and compare with the job construction drawings provided. If this distance is not equal to the job construction drawing dimension, <u>do not proceed!!</u> Be sure the correct unit is being installed. Contact the project manager.
  - b. Determine where the fascia of the door will be located with respect to the header / lintel (if one exists) and the jamb.
  - c. If a header/lintel exists, see the elevation view of the job construction drawings to determine if the door is to be placed against the header. If so, project a plumb line from the header to the floor. Mark the floor at this location.
  - d. If a header/lintel does not exist, or if the door is not going to be placed against the header/lintel, contact the project manager to determine where the door will be located. Mark the floor at this location and scribe a plumb line up the jambs.
  - e. Stand the tube up to the wall, holding the bottom of the tube on the mark while making the tube plumb. Mark the location of the wall fastener mounting holes.
  - f. If possible, check the "Distance between Guides" <sup>1</sup> dimension at this time.

# NOTICE

If the "*Distance between Guides*" dimension does not equal the dimension on the job construction drawings, **STOP**. Check the guide dimensions against those on the job construction drawings to be sure the correct guide is being installed. If so, repeat the previous steps and check the "*Distance Between Guides*" dimension again.

- g. Attach tube directly to jamb with fasteners specified on shop drawing. Tighten the wall fasteners to the recommended installation torque in **Table 6.1** or **Table 6.2**.
- 3. For tubes mounting to saddles:
  - a. Measure the "*Opening Width*", or the distance between jambs. Compare with the job construction drawings provided.

# NOTICE

If this distance is not equal to the job construction drawing dimension, **<u>do not proceed!!</u>** Be sure the correct unit is being installed. Contact the project manager.

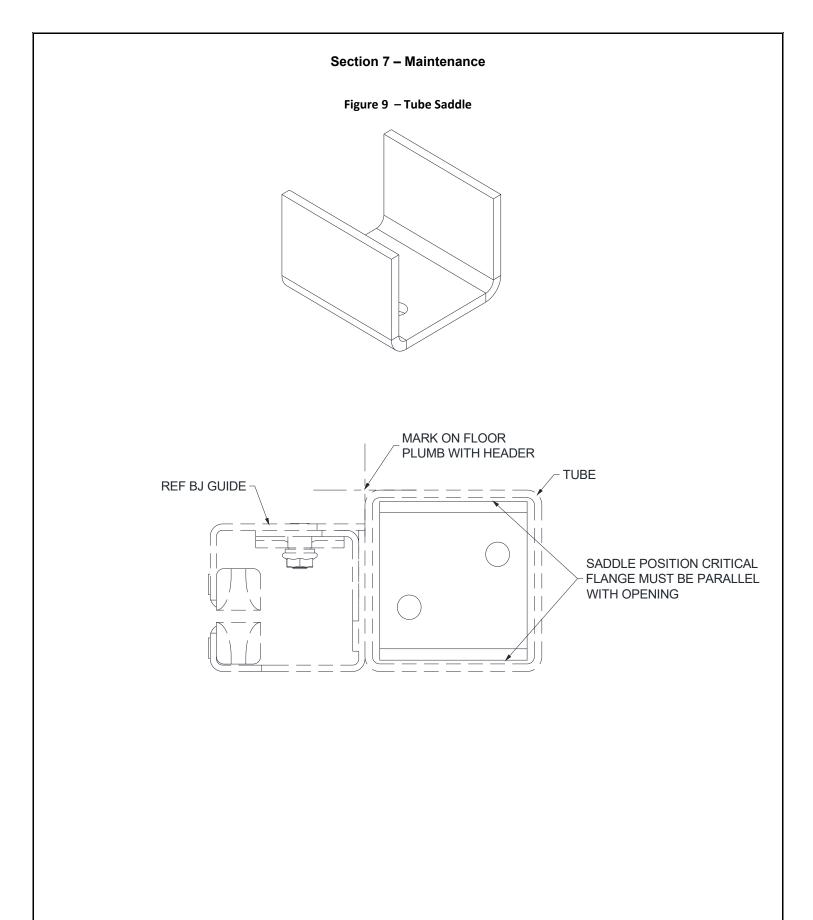
- b. Determine where the fascia of the door will be located with respect to the header/lintel (if one exists) and the jamb.
- c. If a header/lintel exists, see the elevation view of the job construction drawings to determine if the door is to be placed against the header. If so, project a plumb line from the header to the floor. Mark the floor at this location.
- d. If a header/lintel does <u>not</u> exist, or if the door is <u>not</u> going to be placed against the header/lintel, contact the project manager to determine where the door will be located. Mark the floor at this location.

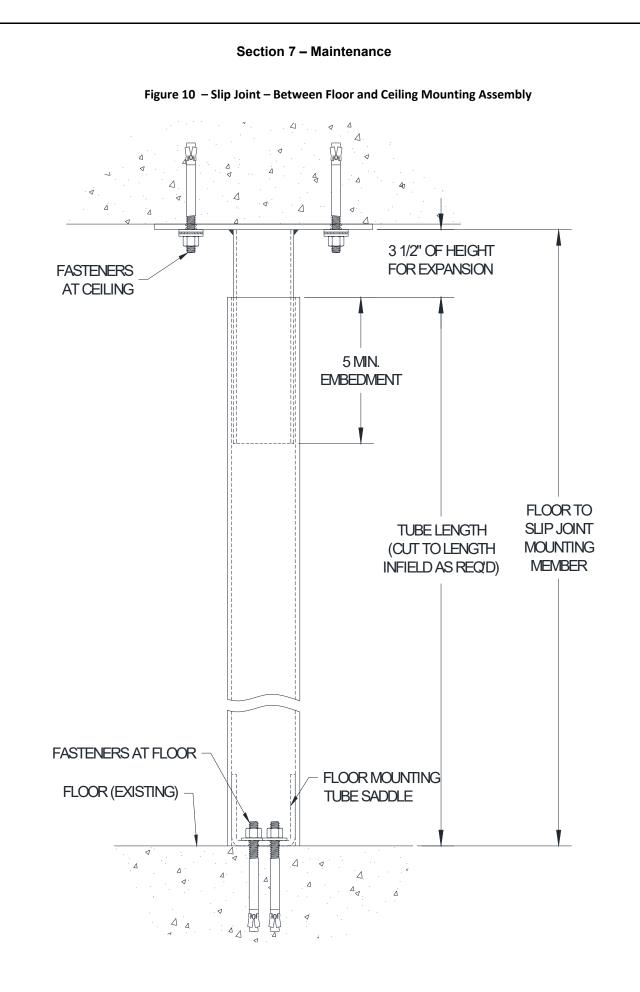
<sup>&</sup>lt;sup>1</sup> The "Distance between Guides" dimension may be taken from the tip of the inner or outer angle, depending on which angle extends further into the opening. See the job construction drawing of the guide detail.

- e. Locate the tube saddles (Figure 9 brackets to constrain tube at bottom).
- f. Use the mark placed on the floor in the previous steps, to locate where the saddle will be and mark the hole locations by placing the saddle on the floor.
- g. Double check the width dimensions provided on the job construction drawings, then drill holes for the saddle fasteners.
- h. Install saddles using the provided hardware.
- i. Guides mounting to tubes, sometimes require the use of a slip joint. There are (3) mounting styles for slip joints, as detailed in **Figure 10, Figure 11, Figure 12**. Refer to the job information to determine the correct mounting style for the unit. Locate the Slip Joint Mounting Member(s).

# **Note**: If the unit does not have slip joints and the top mounting for the tube is not provided by the manufacturer, install as recommended by supplier, then proceed to **page 20**.

- j. Use the job information and the marks made in the previous steps to determine the correct Slip Joint Mounting Member location. Install using the provided hardware. Use only enough fasteners to hold the Mounting Members securely in place (2), as they will be removed in a later step.
- k. Determine the required tube length.
  - i. Measure from the *"Floor to Slip Joint Mounting Member"* as shown in the corresponding figure below. Record this measurement.
  - ii. Calculate the Tube Length: *Tube Length* = *"Floor to Slip Joint Mounting Member"* 3 ½"
  - iii. Cut the tubes to the calculated "*Tube Length*". Make sure you cut the excess tubing from the top. Otherwise you will cut off necessary mounting holes and/or notches.
- I. Remove the Slip Joint Mounting Member(s). Place the Slip Joint Mounting Members in the tops of the tubes.
- m. Orient the tubes (ensure the guides, mounting holes or notches are facing the correct direction.) Place the bottom of the tube over the saddle. Stand the tube upright and reattach the slip joint mounting member using the previously drilled/marked holes to locate. Use all provided fasteners at this stage. Check that installed tube is plumb.





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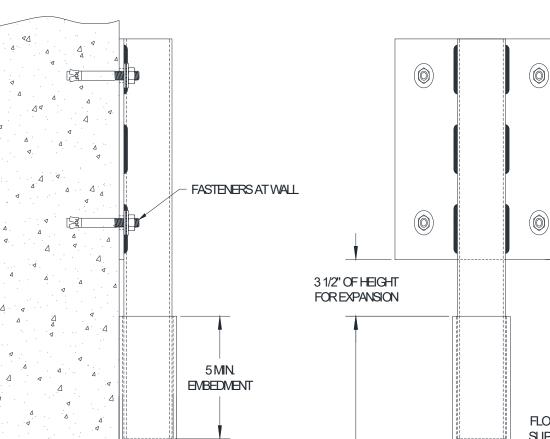
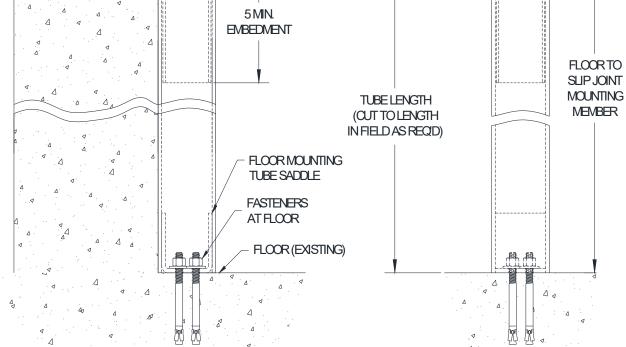
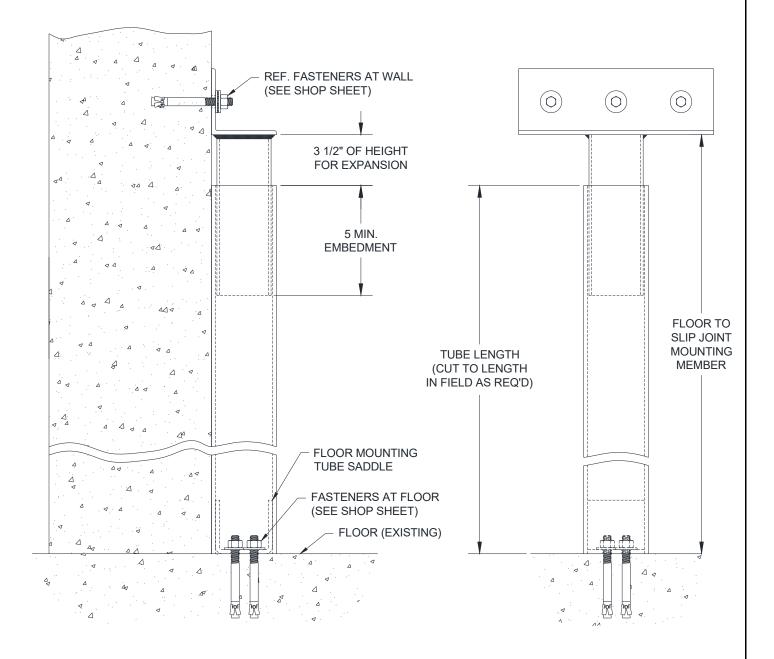


Figure 11 – Slip Joint – Floor to Wall with Plate Mounting Assembly











4. Stainless Steel and Aluminum guides attach directly to the tube. Stainless steel guide construction is two piece; the coil side attaches first as shown in **Figure 13**.

Note: Do not remove UHMW tape on guide flanges where curtain travels.

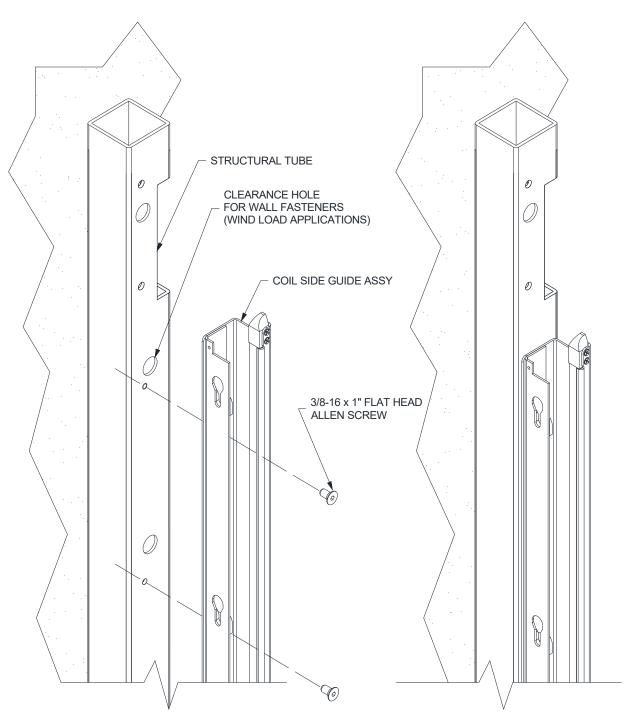


Figure 13 – BJ Coil Side Guide Installation (Stainless Steel)

Section 7 – Maintenance 5. Aluminum is one piece and has a removable bell mouth and stopper bracket. Remove the bell mouth from aluminum extrusion before securing to tube. Figure 14 - BJ Guide installation (Aluminum) OPERATOR GEAR END CUTOUT REMOVEABLE BELLMOUTH 0 SECTION UNTIGHTEN 1/4-20 NUTS, BUT DO NOT FULLY REMOVE Ø Ø  $\mathfrak{O}$ 3/8-16 X 1-1/4 HEX HEAD SCREW WASHER/ Ø 0 ø B ٩Ľ Ø REMOVE 1/4-20 NUT AND REMOVEABLE BELLMOUTH SECTION AND SAVE FOR LATER. LOOSELY THREAD NUT BACK ONTO STUD TO ENSURE STUD STAYS IN പ്പം PLACE COIL SIDE GUIDE FLUSH WITH COIL SIDE TUBE

#### Preparation of the Barrel, Curtain, and Brackets

**Note:** Check to see if a hood support will be required. If so, refer to the "**Hood Support Installation**" section before proceeding to the barrel and brackets.

- 1. Determine which jamb wall is your "operator side", or side on which the operator is to be installed. The following instructions refer to these directional cues.
- 2. The Barrel, Curtain, Brackets, and Bottom Bar will come from the factory assembled and packaged in a crate.
- 3. Determine the "operator" and "adjustor" brackets by referring to **Figure 15**. The "operator" bracket will contain a bearing (does not include tube motor applications) and holes to mount the operator. The "adjustor" bracket will have an adjustor clip angle only (does not apply to tube motor applications).
- 4. Verify included shaft collars are installed onto the barrel.
- 5. Units with tube motors will not require shaft collars.
- 6. Align the operator side of the crate with the operator side of the jamb wall.
- 7. Lift the assembly out of the crate as shown in Figure 17 and Figure 18
- 8. Use the pallet to lift the curtain assembly into position in the following section. Bottom bar faces coil side at this step.
- 9. Ensure bracket spacing to curtain is accurate per **Figure 19.** Adjust shaft collars if necessary.

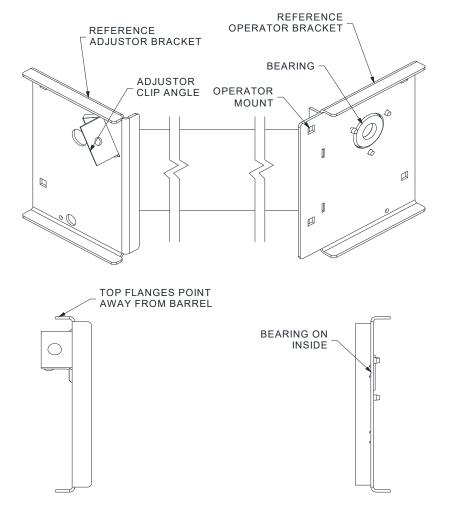
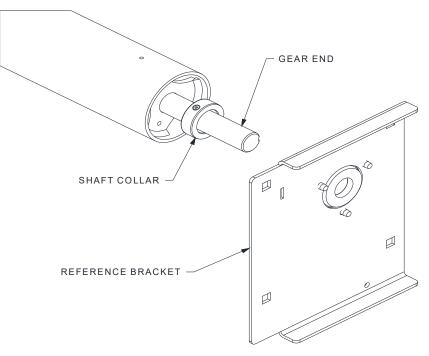
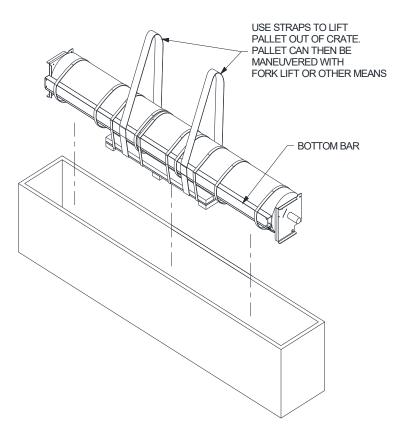


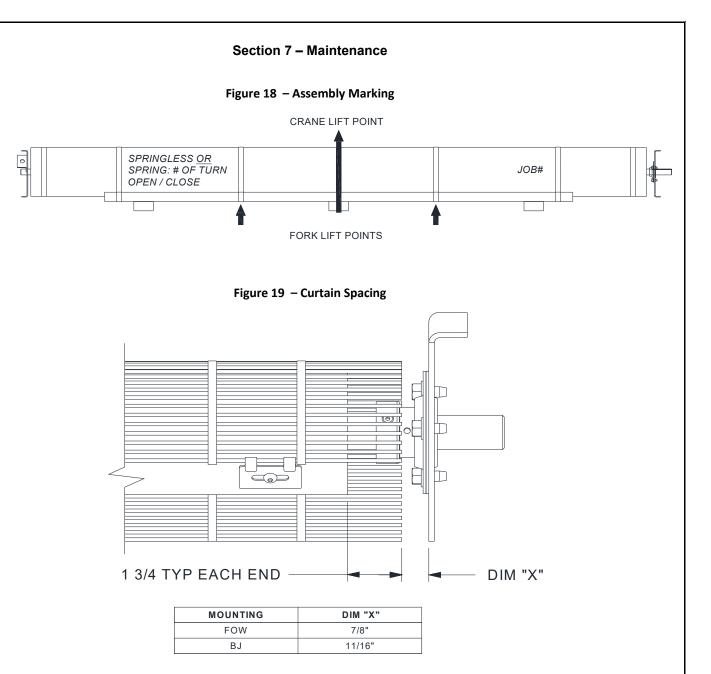
Figure 15 – Bracket and Barrel Prior to Installation











#### Securing Brackets to Wall Brackets

- 1. The curtain/barrel assembly is packaged complete with curtain, brackets and bottom bar attached. Tube motors will also come installed when chosen.
- 2. For units with aluminum guides, remove the bell mouths first. See Figure 20.
- 3. The following methods can be used for hoisting curtain/barrel assembly into place:
  - <u>Crane Hoisting</u>: Use the lifting straps provided with a spreader bar.
  - <u>Forklift Hoisting</u>: Space the forks evenly under the "lift point". Ensure that the barrel assembly is positioned close enough to the tips of the forks that the fastening holes in the bracket can be aligned with those of the guides without the forks contacting the wall. Secure the barrel assembly to avoid slipping off the tip of the forks.
- 4. Before hoisting, refer to the hardware sheet and ensure that the proper type and quantity of fasteners were provided for the bracket installation. Measure the distance between the brackets and compare that to your wall angles or tubes. Brackets are installed on the <u>outside</u> of the wall brackets. Readjust the brackets as needed before hoisting.
- 5. Center the barrel assembly between the guides, keeping approximately 2 feet of clearance between the barrel assembly and wall/guides.
- 6. Raise the barrel assembly up to the approximate bracket mounting level. The brackets should be clear of the guides.

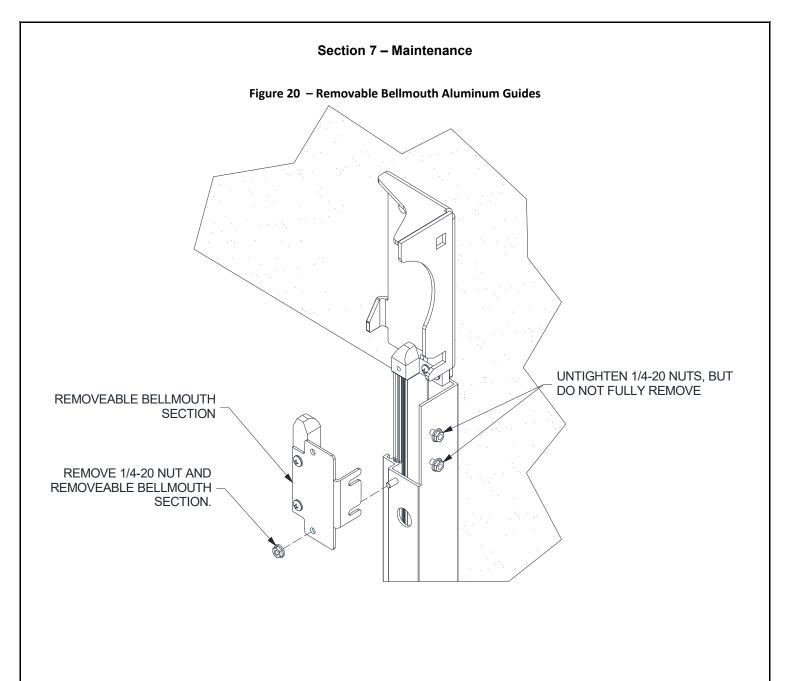
**Note:** Position the brackets in the upright position, with the mounting holes facing the wall, before moving the assembly towards the wall. It may be difficult to rotate the bracket when in close to the wall. The bottom bar should face the coil side of the door at this step.

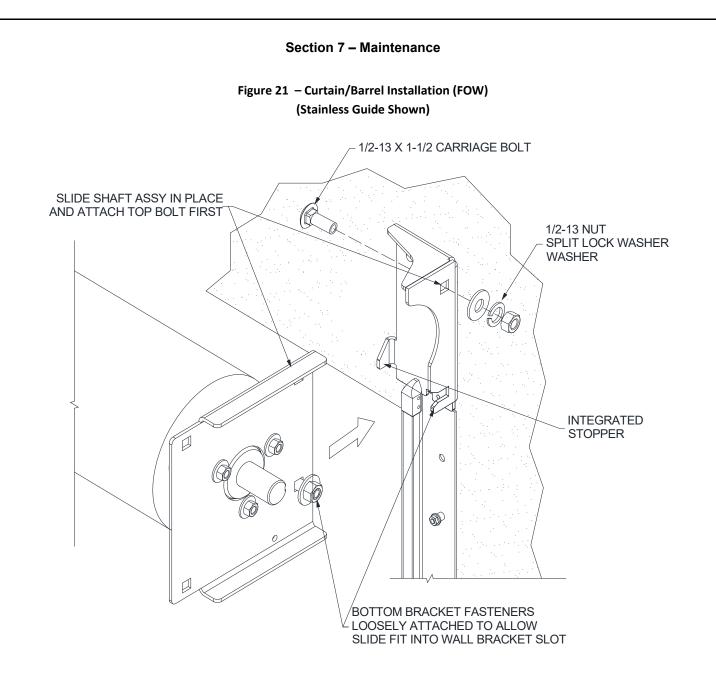
- 7. Slowly maneuver the barrel assembly towards the guide, and align the mounting holes of the brackets with those of the wall brackets.
- 8. Insert the specified bolts and hand tighten.
- 9. Check to see that the barrel is positioned properly between the brackets. That is, so that the proper amount of space is allowed between the barrel and the brackets. Typically the space is equal at both the operator and adjustor side. Adjust as necessary.
- 10. Place a level in the center of the curtain/barrel. The shaft must be level for proper operation. If the shaft is <u>not</u> level:
  - Check the dimensions of the brackets from the top of the bracket to the center of the barrel.
  - Verify that the bracket mounting fasteners are the same distance from the top of the bracket. a. If the dimensions **are not** correct, contact the Service Department.
    - b. If the dimensions <u>are</u> correct, the floor may be out of level, causing the bracket mounting holes in the guides to be out of alignment.
- 11. Fully tighten mounting bolts to the torque specifications in this manual. See **Section 6** for torque specifications. See **Figure 22** and **Figure 22** for more assembly detail.

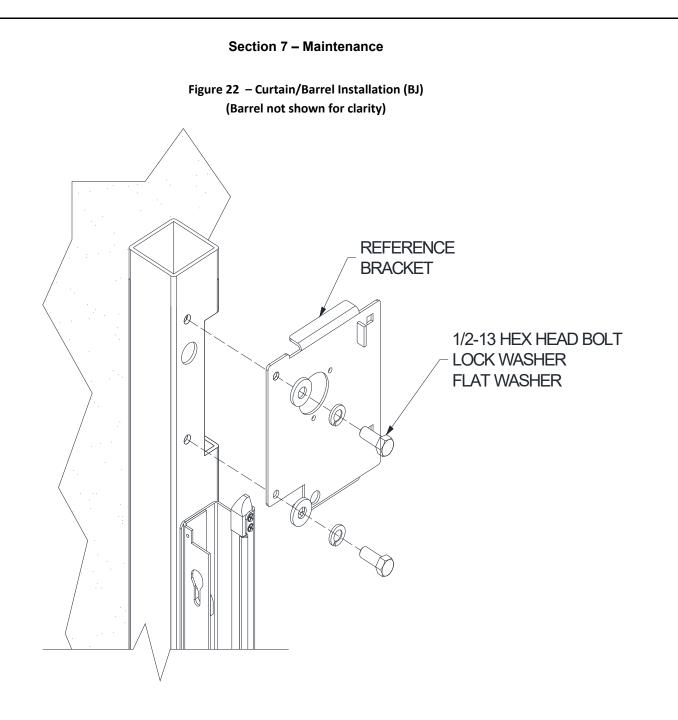
# NOTICE

Proper pretension of the bracket mounting bolts will benefit the life of the bolts and brackets.

- 12. If the adjusting wheel was not previously installed, install it now. Do not install the adjustor pin yet.
- 13. Ensure the sprockets on the operator bracket are aligned. Tighten the set screws in the sprockets and bearing.



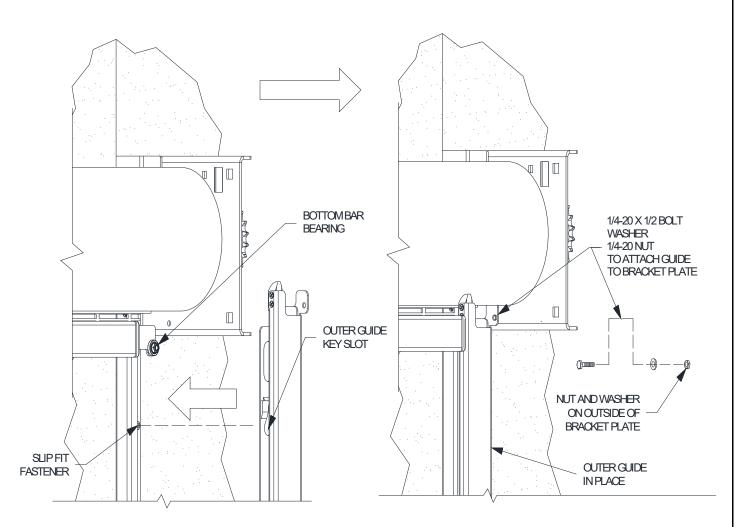




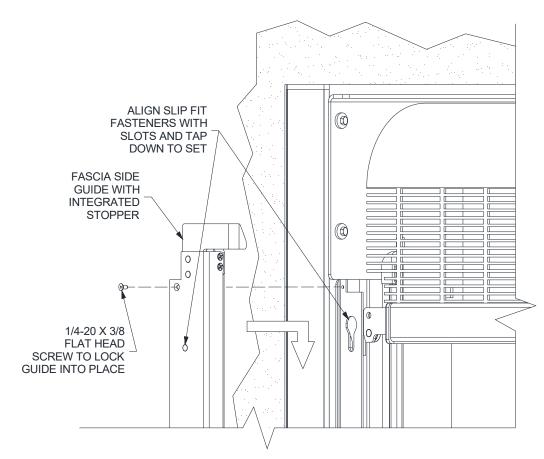
#### Outer guide installation (Stainless Steel)

- 1. Raise outer guide approximately 1-1/4" higher than already installed coil side guide to align key slots with slip fit fasteners.
- 2. Ensure bottom bar bearing is inside of inner guide flange
- 3. Push outer guide onto inner guide and tap down until guides are flush at bottom and slip fit is snug
- 4. Secure guides in place with top fastener to bracket

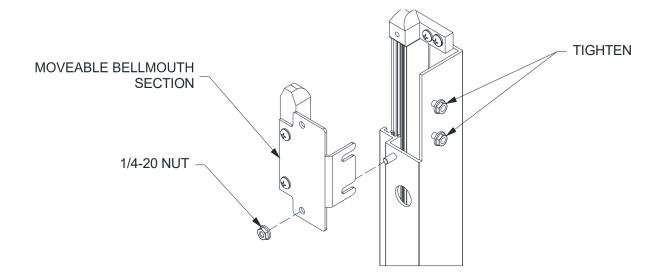
Figure 23 – Coil Side Guide installation (FOW)











#### Motor Operator Installation:

- 1. Unpack the motor operator from the shipping box and retrieve the *Operator Mounting Bracket* and bolts provided in the kit.
- 2. There are several motor mounting configurations that can be formed with the supplied components. Refer to the shop drawings and components supplied with the kit in order to identify the specific style of mounting ordered for the unit. Some of the types of mounting are:
  - Horizontal Top of Coil
  - Horizontal Front of Coil
  - Tube Motor (factory installed)
- 3. Mount the operator mounting bracket to the operator using the supplied fasteners.
- 4. Mount the operator mounting bracket to the operator bracket according to the shop drawings using the supplied fasteners.
- 5. Install controls and wire the operator. Refer to the wiring diagram provided with the operator for proper connections and voltages. The controls should be installed in an area from which the door/opening is clearly visible. This will allow an individual operating the unit to make a visual inspection of the opening for any obstacles or other potential hazards before setting the door into motion.

Note: Do not attempt to set the upper and lower limits until the curtain is installed or released.

#### Attaching Additional Bracing (if required)

- 1. Attach a clip angle to the operator mounting bracket and the bracing angle to the clip angle. Snug all bolts.
- 2. Mount the other supplied clip angle to the bracing angle and swing the bracing angle to the wall or structural support.
- 3. Align the mounting face of the clip angle with the face of the wall, mark and drill a mounting hole for the size of the supplied mounting fastener, and secure the clip angle to the wall with the fastener.
- 4. Square the operator-mounting bracket, adjusting the bracing angle as necessary, and fully tighten all the mounting bolts.
- 5. Lift the motor operator into position on the mounting bracket and align it with the appropriate hole pattern.
- 6. Insert the fasteners included in the kit from the bracket side first into the mounting foot of the operator and tighten the nuts with lock washers.

*Note:* All mounting bolts are supplied with nuts and lock washers.

## **Applying Spring Turns**

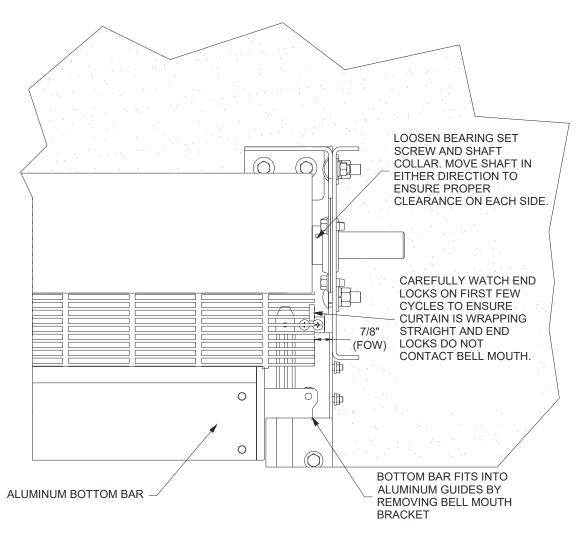
- 1. Start with door in open position and refer to the job information for the number of spring turns required on the unit in the open position.
- 2. To apply spring torque, remove cotter and stop pin from adjusting wheel.
- 3. Using two tensioning bars apply spring torque by inserting both bars into adjustor wheel one above the other.
- 4. Rotate wheel in a direction of raising the curtain. Maintain applied torque with upper bar, while removing lower bar. RE-insert this bar above the other and continue applying torque one notch at a time using this hand over hand procedure until the specified number of spring turns has been applied.
- 5. Replace stop pin into adjustor wheel and insert the cotter pin to hold it in place.
- 6. The spring will not hold the door in the open position. Ensure that the motor brake or safety pin is engaged prior to removing any devices applied to hold the door in the open position (clamps, slings, etc.).
- 7. Final spring torque adjustment, if necessary, should be increased or decreased with the curtain in the fully open position.
- 8. Remove cotter pin and stop pin from adjustor wheel and begin to increase or decrease torque.
  - To increase torque, rotate the wheel in the direction of raising the curtain.
  - To decrease torque, carefully rotate the wheel in the direction of lowering the curtain.

**Note:** If you have difficulty balancing the door, or the number of turns required to balance the door varies significantly from the quantity provided, contact the <u>Service Department</u>.

#### **Curtain Alignment**

- 1. Lower the curtain slowly into the guides and watch to ensure the end locks do not come too close to the bellmouth as in **Figure 26**. Ensure bottom bar doesn't contact floor or stoppers during this step as Steel Weave curtains are sensitive to upper and lower limit adjustment (see next section).
- 2. If the end locks get too close to the bellmouth or get hung up, stop the door immediately and do the following:
  - a. Raise the curtain back up slowly and manually bend the curtain back into place if it was deformed by end lock contact.
  - b. Check shaft for level to ensure curtain isn't coning to one side due to out of level shaft
  - c. If shaft is level but curtain is still coning, loosen shaft collars on each end and shift the shaft to get the curtain centered and avoid end lock contact with bellmouth
  - d. Tighten shaft collars and repeat step 1.
- 3. After successfully getting door to close without end lock interference, cycle up and down 10 times to ensure curtain is tracking properly and remaining centered on the shaft. Closely monitor the end locks to ensure the curtain doesn't begin coning again. If curtain looks like it is coning again, check shaft level again and go back to step 1.

#### Figure 26 – Curtain Alignment (Aluminum)



#### Setting Limits:

1. Steel Weave curtains are extremely sensitive to upper and lower limits.



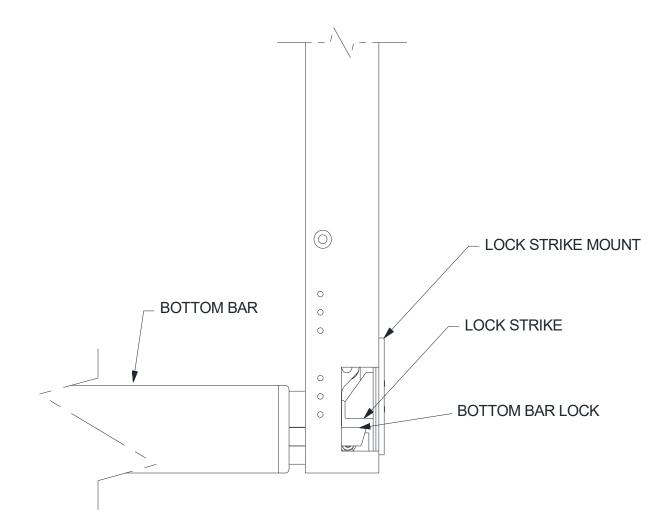
Setting lower limit too low can cause permanent damage to curtain that could require replacement.

- 2. Set upper limit to desired height. Wall brackets have integrated stoppers to act as guides for upper limit but should not be used to stop the bottom bar. Raise the curtain up to 3" below desired height and slowly adjust limits **1 click at a time** until upper limit is reached.
- 3. Lower door to approximately 3" above floor or desired closed position. Slowly adjust limits **1 click at a time** until lower limit is reached.

# Lock Strike Adjustment

- 1. Lock strikes will come preinstalled if selected but must be adjusted after installation.
- 2. Use an allen key to LOOSEN, BUT DO NOT REMOVE (2) fasteners that attach lock strike to guide.
- 3. Use allen key to move lock strike up or down as required.
- 4. Ensure enough clearance for bottom bar lock to function properly,  $\frac{1}{2}$ " clearance recommended.
- 5. Tighten fasteners when lock strike is in appropriate position.

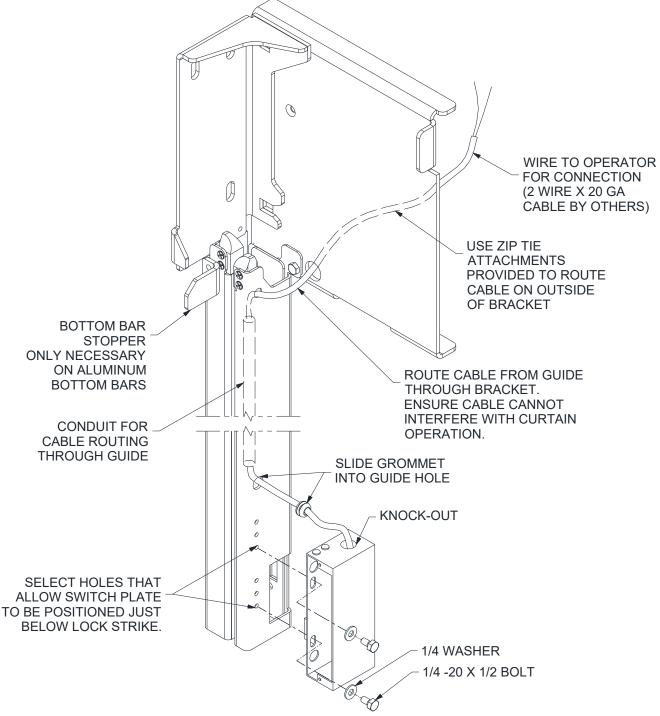
## Figure 27 – Lock Strike (Stainless)



## **Guide Mounted Interlocks (GMI)**

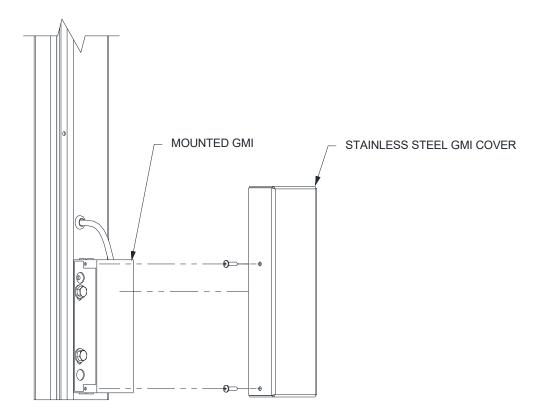
GMI devices are different for stainless steel and aluminum guides. For Stainless Guides refer to Figure 28. Refer to Figure 29 for installation of GMI on aluminum guides.

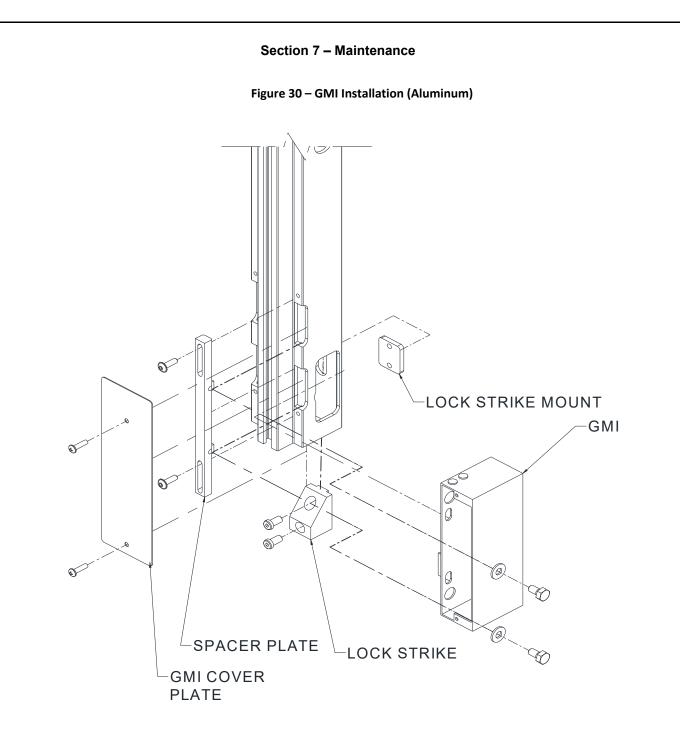




2. After GMI is installed and functioning properly, install the cover per Figure 28.

# Figure 29 – GMI Cover (Stainless Steel)





3. Refer to **Figure 30** for aluminum mounted GMI adjustment in reference to the cover plate.

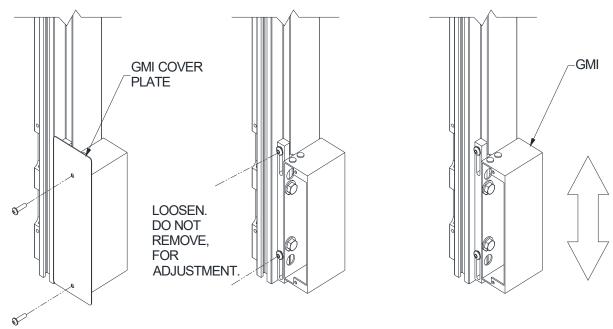


Figure 31 – GMI Adjustment (Aluminum)

# **Cable Management (Stainless)**

Note: Provided on locking units only.

- 1. Cables at the bottom of the guide are run through a tube inside the guide and exit out the top.
- 2. Pull the cables through across the guide and through the hole in the bracket.
- 3. Ensure that the cables are tight, and do not interfere with the curtain.
- 4. On the outside of the bracket attach the cable tie mount.
  - a. Ensure it is in a location that so that the cable or the cable tie mount will not interfere with any other components.

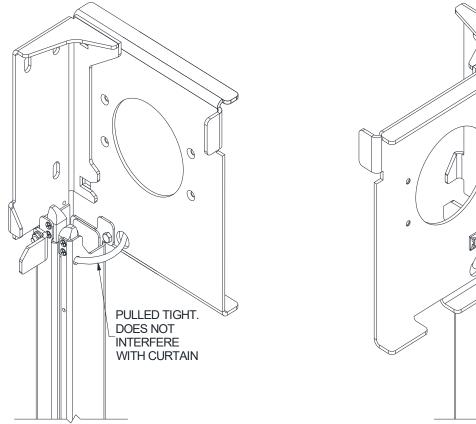
CABLE TIE MOUNT.

LOCATE AS

NEEDED.

Ø

- b. Pull cable tight to cable tie mount.
- 5. Secure cable with a cable tie.



# Figure 32 – Cable Management (Stainless)



# **Hood Support Installation**

1. Refer to the job information to determine the type and quantity of hood supports required for your door. Hood supports will be noted on the elevation view of the job construction drawings.

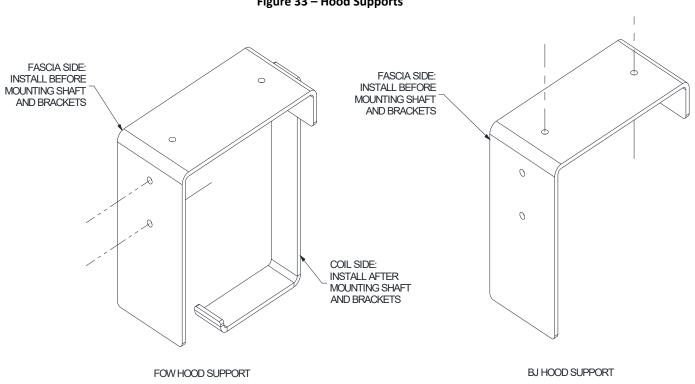


Figure 33 – Hood Supports

2. Determine where the support(s) will be located between the guides.

- a. Single Support locate at the center of the unit.
- b. Two Supports locate from jamb (DBG/2)
- c. Three Supports
  - i. Locate each end from guide face at (DBG/3) 1 5/16"
  - ii. Locate middle support at center of unit
- 3. Single section hoods will require a hood support on BJ units that have a DBG greater than 6 feet. a. Use only the fascia side of the hood support in this case.
- 4. Mark a line on the lintel at the centerline of each support.
- 5. Check the construction at the support locations to be sure it is strong enough to handle the weight of the hood.

#### Note: If the construction is not strong enough, do not proceed until rectified.

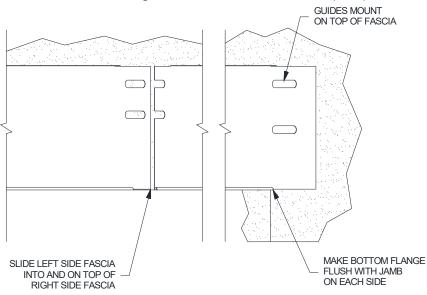
- 6. The term "top of the coil" refers to the top edge of the brackets and hood which house the curtain (The curtain in the fully open position is referred to as the "coiled curtain". The top of the coiled curtain is not actually located at the "top of the coil", it is lower than the top of the coil) Locate the "top of the coil":
  - a. This is typically at the top of the wall bracket.
  - b. If there is a ceiling at the top of the coil, skip the next step.
- 7. Mark a line at the top of the coil at both guides of the unit. Project the lines together to make a continuous line.

- a. This will help locate the top of the hood support which will keep the hood level.
- 8. Project a line from the fascia mounting location (fascia mounting channel or fascia side of the tube) from one guide to the other.
- 9. Mark a line at the support centerline along the fascia line.
- 10. Prepare the location of the attachment point of the support(s) prior to installing the barrel. This will make installing the support much easier when the time comes to attach it to the lintel/header or ceiling.
  - a. Hold the support in place at the determined location and mark the mounting hole locations.
  - b. Drill holes in the construction.
- 11. Attach the fascia side hood support to the lintel/header or ceiling to be sure the mounting holes were located properly.
- 12. Proceed to the "Barrel and Brackets" section.
- 13. Once the barrel, brackets, curtain are installed, and necessary testing was done on the unit, install the Coil Side hood support.

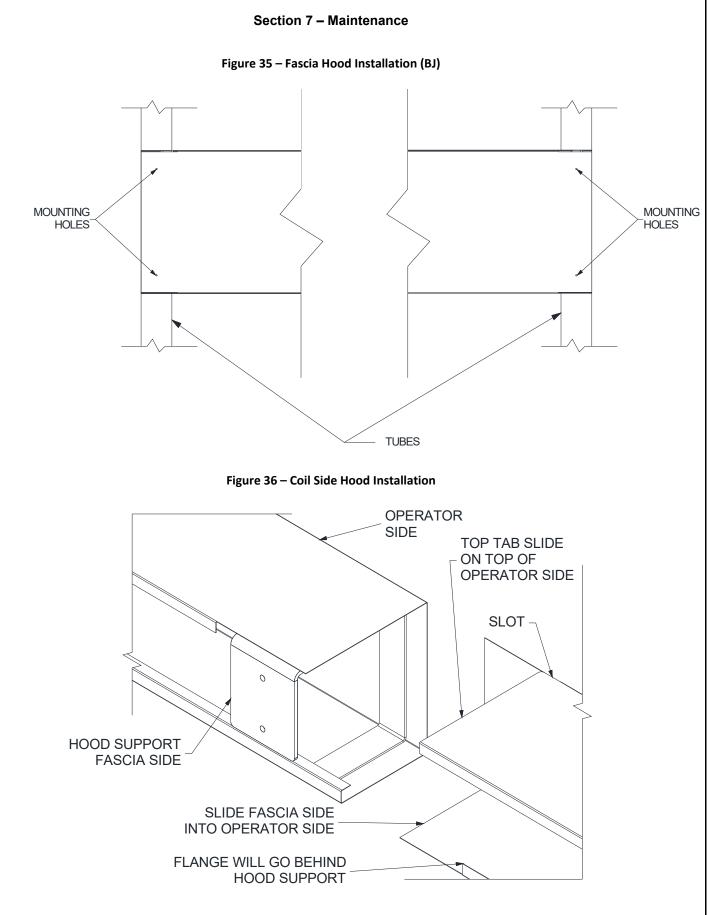
#### Hood and Fascia Installation

**Note:** Ensure limits for motor are set before proceeding to install hood or Fascia (see Curtain Alignment section).

- 1. Mount fascia starting with right side first. Fasten the fascia accordingly using the fasteners provided. Ensure hoods with multiple sections overlap correctly.
- 2. BJ Fascia will be installed after guides, brackets, and shaft have been installed.
  - a. Mount Fascia starting with right side first.

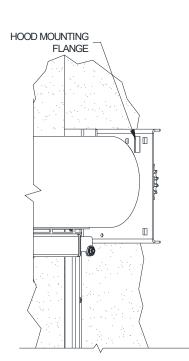


#### Figure 34 – Fascia Hood Installation (FOW)

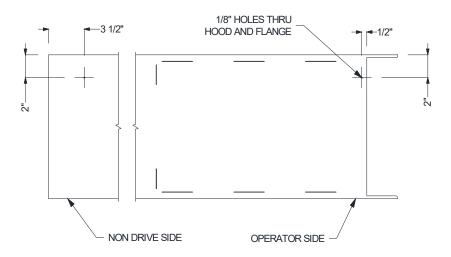


## 3. Hood Fastening

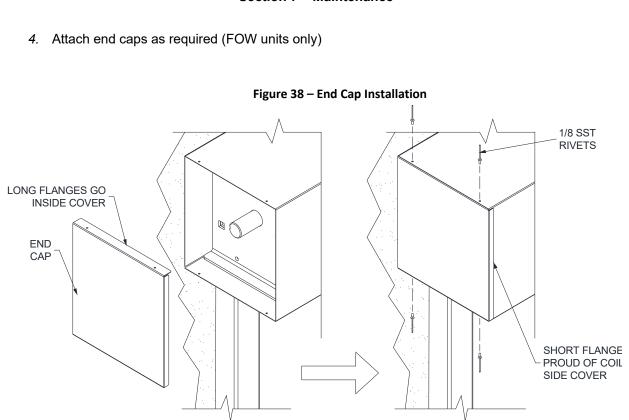
- a. Hoods are fastening to the brackets using rivets. A 1/8" hole will need to be drilled into the bracket. Use the holes already on the hood as a template for drilling into the bracket.
- b. Low Clearance -In low clearance situations 1/8" holes can be drilled into the coil side of the hood and hood mounting flange per **Figure 37**.







FOC HOOD



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#### **Cover installation**

- 1. Once the unit is installed and operating correctly, motor covers can be installed.
- 2. Install the motor cover, end caps, and chain access panel as per figures below.

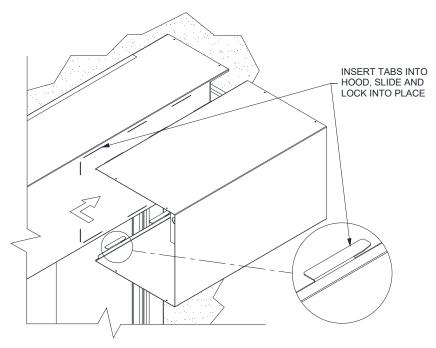
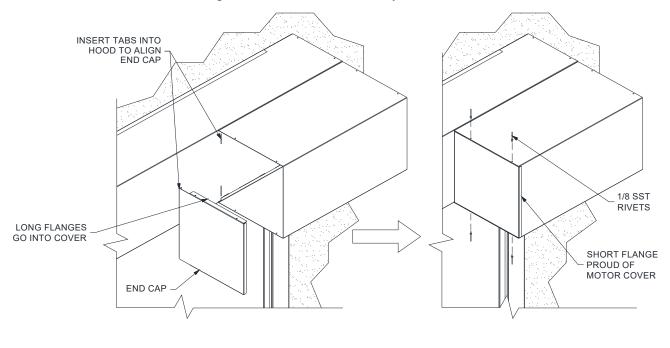
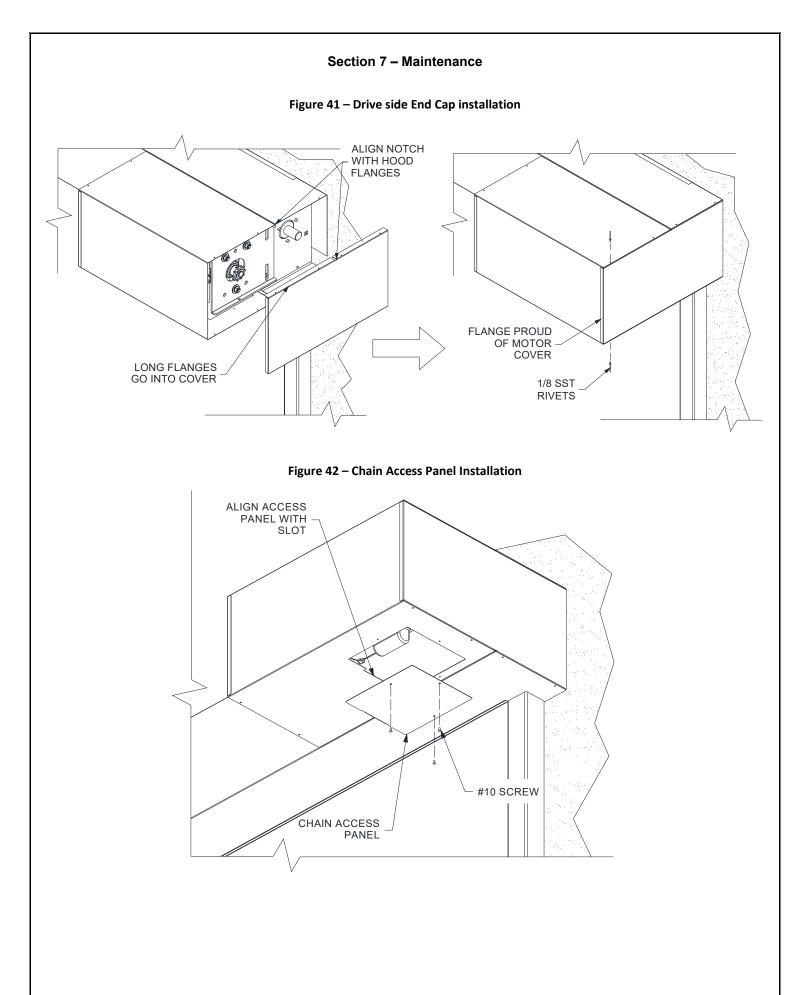


Figure 39 – Motor Cover Installation (Front of Coil)

Figure 40 – Non-drive side End Cap installation





# Maintenance Schedule

Component	What to look for and how often the components must be inspected:	Weekly	Monthly	Quarterly	What to do if problem exists:
Curtain & Bottom Bar	Are any curtain components damaged (slats, endlocks, etc.)?	х			Contact Service about replacing damaged parts.
	Is curtain creating a belly when closed?	х			Lower limits are set too low, contact service about adjusting lower limits.
	Is bottom bar damaged?	х			Contact Service about replacing damaged parts.
	Are bottom bar fasteners in place and properly tightened?		х		Fasteners must be inspected/replaced and properly tightened.
	Are fasteners attaching curtain to the barrel in place and properly tightened?		х		Fasteners must be inspected/replaced and properly tightened.
	Do you notice any hang-ups, jamming or other problems preventing the door from moving smoothly throughout the opening?	х			Check for external issues, if none exist, contact Service.
	Do you notice any odd or excessive noise when the door is operated?	х			Check for external issues, if none exist, contact Service.
Brackets	Are brackets plumb and perpendicular with wall?			х	Contact Service.
	Are bracket fasteners in place and properly tightened?			х	Fasteners must be inspected/replaced and properly tightened.
	Do you notice signs of excessive wear on the bearings (i.e. binding, excessive noise, etc.)?		x		If there is a grease fitting, apply grease, if not, contact Service.
Guides	Are wall fasteners in place and properly tightened?		х		Fasteners must be inspected/replaced and properly tightened.
	Are guide assembly fasteners in place and properly tightened?		х		Fasteners must be inspected/replaced and properly tightened.
	Is guide gap dimension correct?		х		Guide gap must be between 1/4" and 3/8", adjust if necessary.
	Are any of the guide parts bent or damaged?		Х		Contact Service.
Hood and Fascia	Is hood/fascia dented or damaged?			х	Remove hood/fascia. Repair if possible. If not leave hood/fascia off and contact Service.
	Is curtain rubbing against the hood/fascia?	х			Hood/fascia may have been damaged. Contact Service.
	Is hood/fascia level?			х	Check fasteners, they may be loose or missing. Replace as soon as possible.
	Are guide assembly fasteners in place and properly tightened?		х		Fasteners must be inspected/replaced and properly tightened.
	Is hood support level?			х	Check fasteners, they may be loose or missing. Replace as soon as possible.
Door operation	Does the door require excessive force to open?		х		Check for hang-ups or obstructions. Ensure spring tension is set correctly. Contact Service.

**Note:** If any of the following problems exist, <u>do not</u> operate the door until repaired.

Component	What to look for and how often the components must be inspected:	Weekly	Monthly	Quarterly	What to do if problem exists:
Motor Operator	Are the fasteners attaching the motor- to-the mounting bracket secure?			х	Fasteners must be inspected/replaced and properly tightened. Contact Service for replacement hardware.
	Is the door stopping correctly at the open and closed (as soon as the bottom bar contacts the floor) positions?		×		Limits may have to be adjusted in the motor operator. Refer to the operator owner's manual or contact Service.
	Is the operator functioning normally?		х		Refer to the <i>Operator Troubleshooting</i> <i>Table</i> on the following page to diagnose the problem.

6. Operator Troubleshooting: Note: If you suspect you are having an issue with your operator, use the following table to determine the potential causes. If the provided solution does not eliminate the issue, or the table does not address your particular problem, contact the Service Department.

Component	Problem	Potential Cause	Solution
Motor Operator	Motor Operator does not run when OPEN or CLOSE button	The circuit breaker may be flipped or fuse blown.	Reset breaker or replace fuse. Contact Service if replacement fuse is needed.
	is pushed	The thermal overload may be tripped.	Reset thermal overload.
	Motor operator runs but the door does not move	Tube motor internal gearing might be damaged.	Contact Service for repair parts. Hoods and shaft will need to be removed to replace tube motor.
		Door or drive chain may be jamming.	Check for hang-ups or obstructions. Try to operate manually. If issue persists, contact Service.
	Motor hums but does not run	Brake does not release.	Check power to brake solenoid.
		Open motor winding.	Check that all connections are secure.
	Motor operator runs in wrong direction and limits do not function	Polarity is reversed.	Interchange any 2 power leads to unit.
	Door drifts when motor shuts off	Brake may be improperly adjusted or broken.	Contact Service for repair parts. Hoods and shaft will need to be removed to replace tube motor (brake is internal).
	Motor operator does not shut off at full OPEN or at full CLOSE position	Limits may need adjustment.	Refer to the operator owner's manual to readjust limits.
		Limit switch may be defective.	Contact Service.
		Limit nut retainer not engaging slots in limit nuts.	Be sure retainer is securely engaged in slots of both limit nuts.
		Limit nuts binding on screw threads, allowing them to jump position on retainer.	Lube screw thread. Check that limit nuts turn freely.