GUIDE 523

Installation, Operation & Maintenance of Coniston Lock

What to Know Before Getting Started

Review technical drawings on the following two pages.

We're Here to Help

At Krieger, we understand every project is unique. If after reviewing this guide, you have any questions or concerns about installing, adjusting, or maintaining your Krieger product, our engineering department is here to help.

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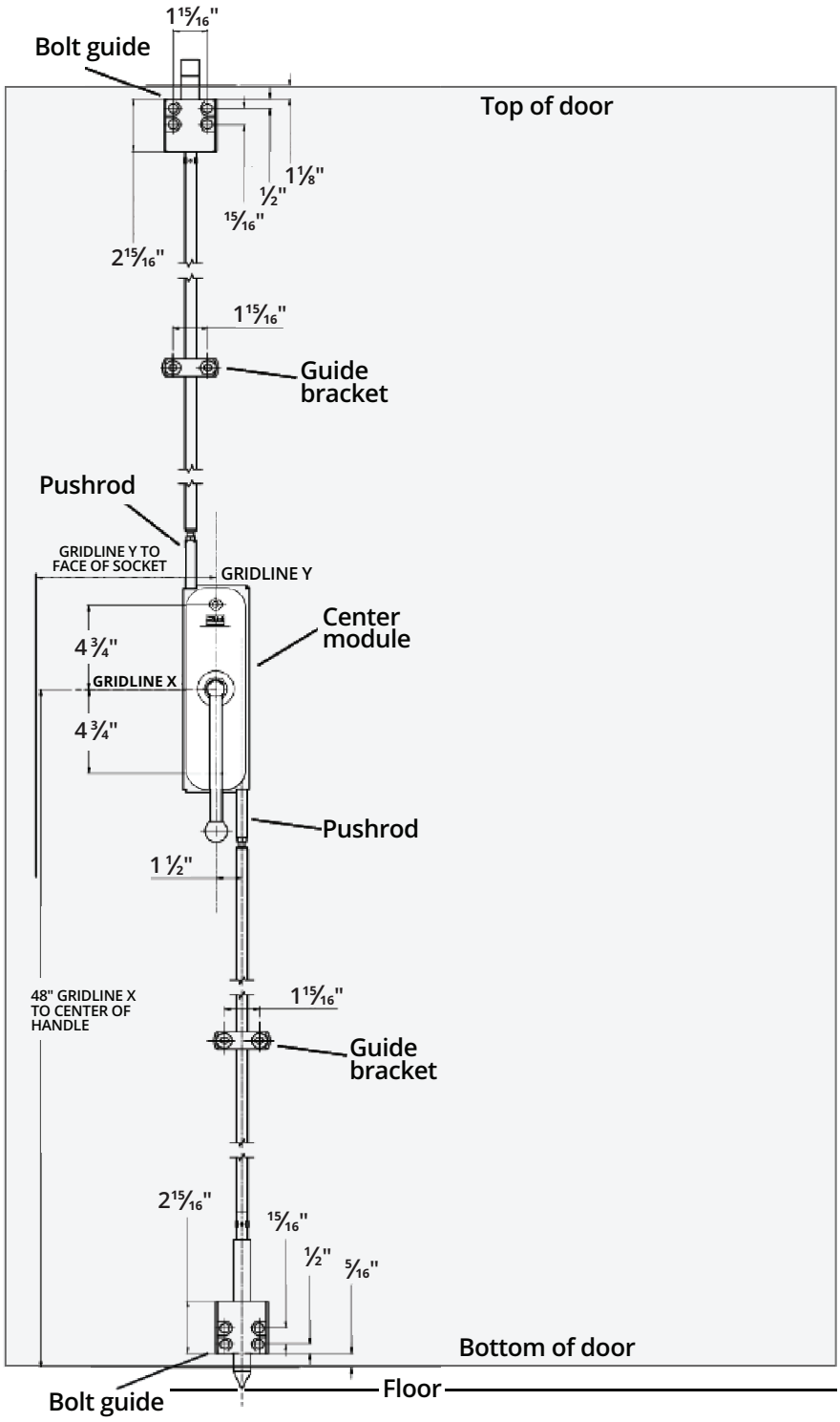
Technical Drawings



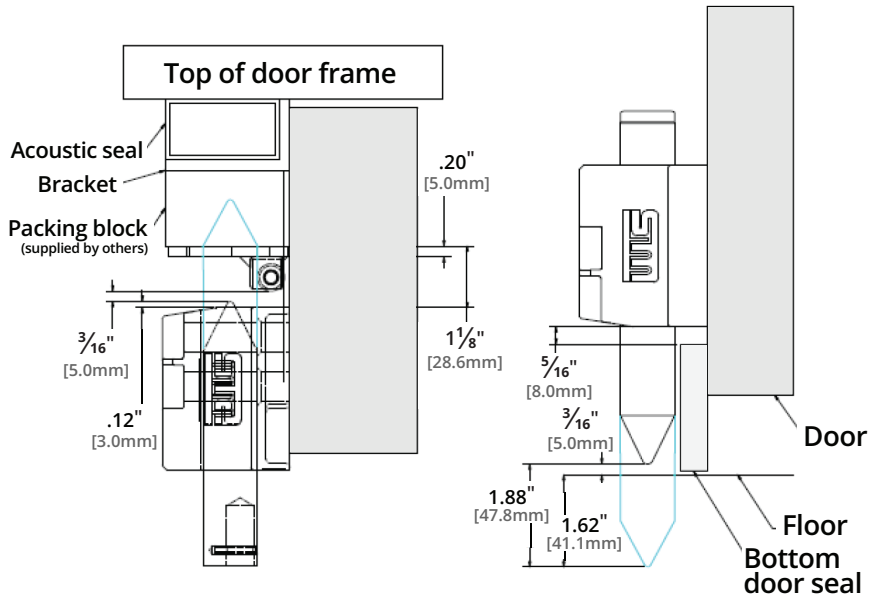
NOTE: The bottom bolt guide is designed to clear the Cam Lift door bottom. Attach the bottom bracket above the door bottom as shown in the illustration.

This will prevent any adjustment issues in the future.

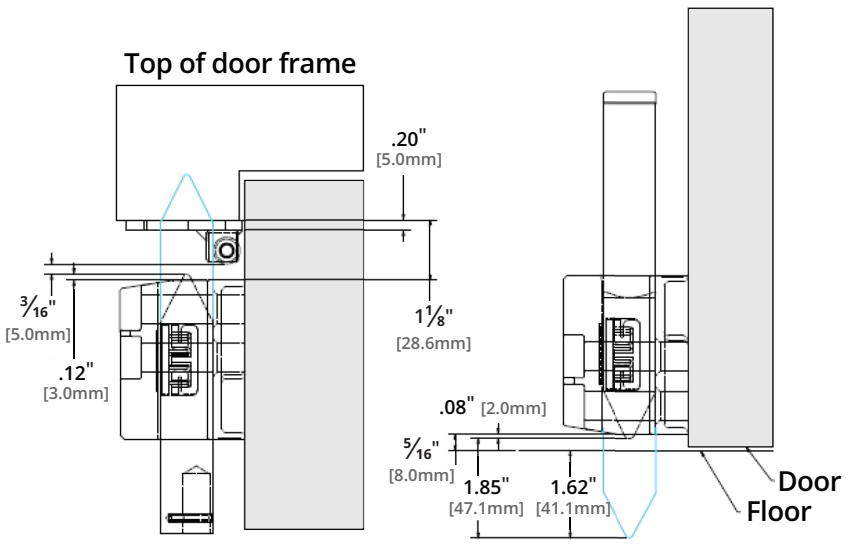
Rev. 010524

Technical Drawings

Guide Detail for Sealed Doors



Guide Detail for Non-Sealed Doors



Installation Instructions

STEP 1

Complete All Door Adjustments

- Ensure the door has been installed properly and the door swings freely. All adjustments to the door, hinges, and frame should be made before installing the Coniston.

STEP 2

Mark and Prep for Center Module

- Position supplied paper template on the door ensuring that 'GRIDLINE X' is 48" from the face of the floor socket and 'GRIDLINE Y' is at the desired backset. These instructions will be based on a typical 5" backset.

  NOTE: Floor socket is likely not installed. If not installed, add socket thickness that will extend above the finished floor.

- Mark, drill, and tap the two center module mounting holes for the install of two (2) 5⁄16 -18 x 2" hex head screws.

STEP 3

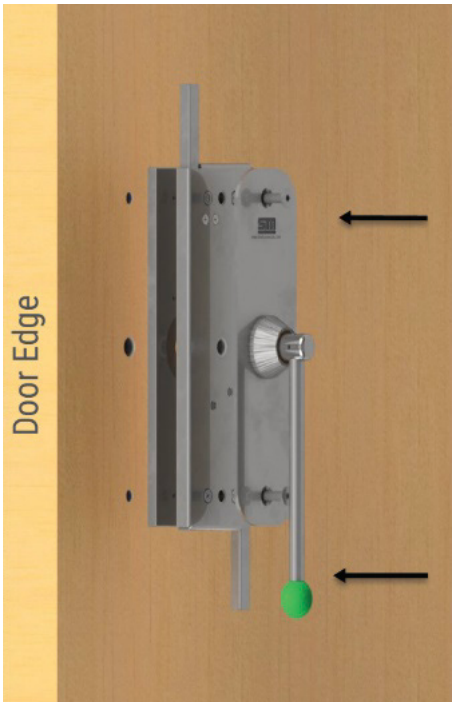
Cut Spindle to Length

- For exit-only systems, cut spindle to 2 ½" in length.

STEP 4

Prep Center Module Assembly for Install onto Door

- On a worktable or surface, place center module with the upper pushrod oriented closest to the lock-side door edge.
- Insert spindle into spindle hole.
- Place handle assembly on top of center module so that it seats on to the protruding spindle with the handle oriented at the 6 o'clock (extended pushrod) position.
- Stack the center module and handle assembly onto the center module spacer plate (cavity side facing center module).
- Place a 5⁄16 -18 x 2" hex head screw through the top mounting hole to help assembly stay together during install on to door.



STEP 5

Install Center Module Assembly

- While holding the assembly together screw in 5⁄16 -18 x 2" into top and bottom mounting holes of center module assembly and door. Tighten to a maximum torque of 130 in-lb (15Nm).

STEP 6

Mark and Prep Door for Bottom Bolt Guide

NOTE: The vertical line measurements are based on the typical backset of 5".
If using an atypical backset add 1 ½" to backset to find vertical line.

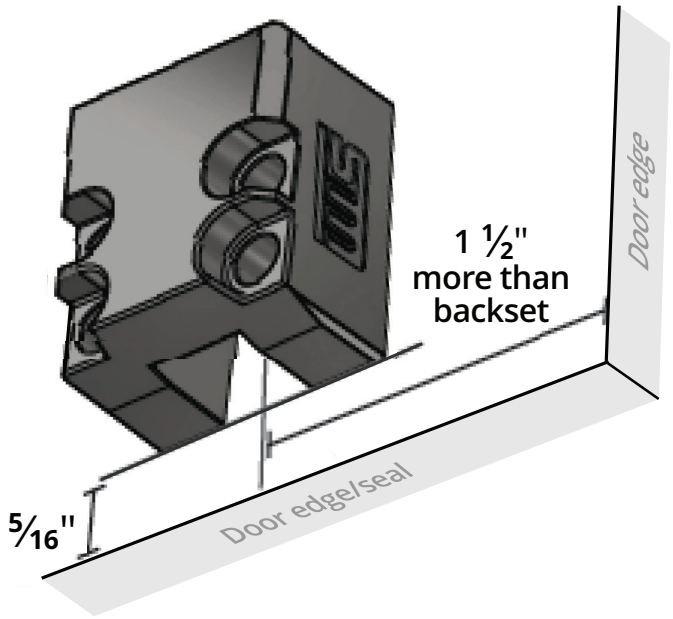
- With mounting holes down, hold the bottom bolt guide spacer edge flush to and above the horizontal line as well as center of the vertical line.
- Mark center of mounting holes.
- Drill and tap marks for ½ -13 x 2 ½" hex head screws.

For doors with acoustical/RF seals:

- Mark two intersecting lines: a 2" vertical line 6 ½" from lock-side edge of door and a 3" horizontal line that is parallel to bottom door edge and 5⁄16" above the bottom door seal or floor socket, whichever is higher on door.

For standard hollow metal doors:

- Mark two intersecting lines: a 2" vertical line 6 ½" from lock- side edge of door and a 2" horizontal line that is parallel to bottom door edge and 5⁄16" above socket or 5⁄16" above bottom of door, whichever is higher on door.



STEP 7

Measure and Cut Bottom Tube to Length

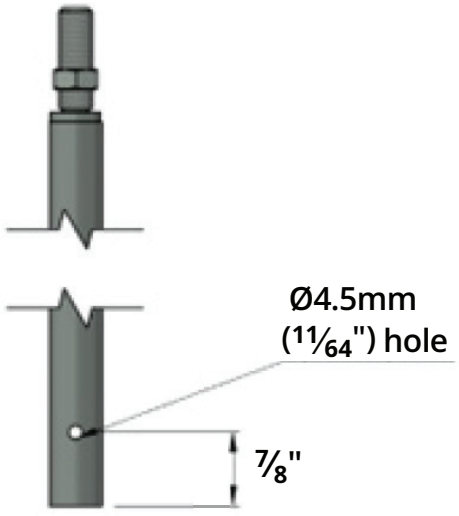
NOTE: All adjustments to the door, hinges, and frame should be made before measuring or cutting tubes.

- If center module is not in retracted state, turn handle 90° toward hinges to retract.
- In retracted state, measure the distance (M) from the end of the pushrod to the surface of the finished floor. If a floor strike/socket is to be used, subtract the thickness of the exposed floor strike/plate.
- Cut bottom tube to length (L).
  L = M - 9 ¼"

STEP 8

Mark and Drill Holes on Bottom Tube for Tube Clip

- Mark a single hole ⅞" from tube end.
- Drill hole through only the marked side using 11⁄64" drill bit.
- Insert tube connector so that hole of connector and drilled hole align. Drill through aligned holes, using tube connector as drill guide to drill opposite hole (11⁄64" drill bit).



STEP 9

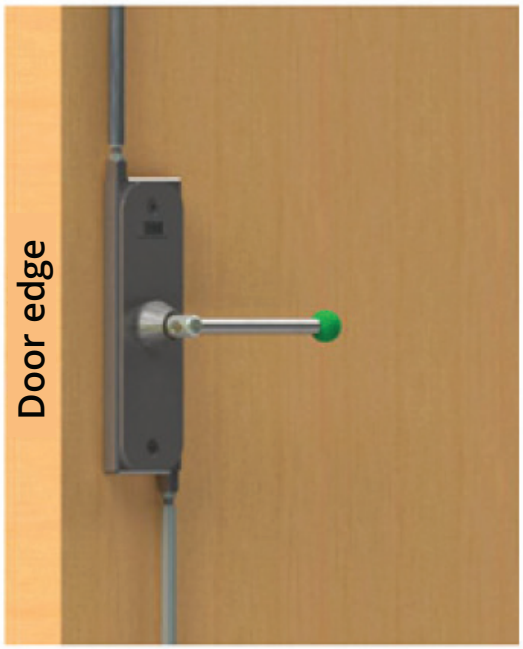
Build Bottom Tube Assembly

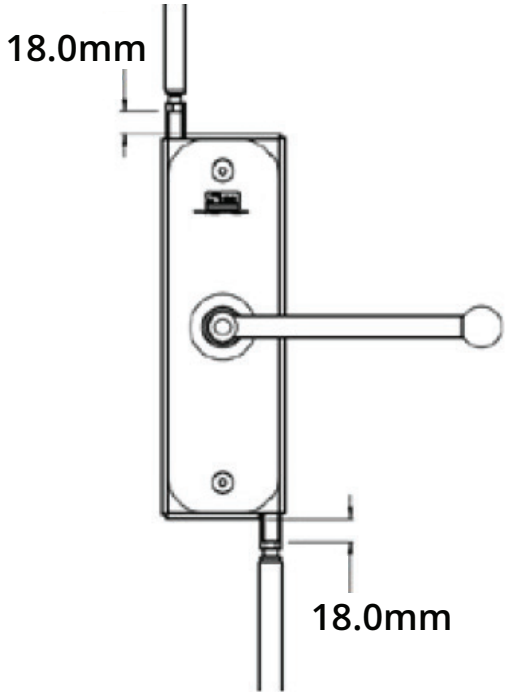
- Bottom bolt's tube connector is positioned towards the side of the bolt that will be closest to the door when installed. Connect the bottom bolt to the bottom tube using a tube clip.
- It is recommended to fit the tube clip from the side of tube that will be towards door for security/safety.

STEP 10

Install Bottom Tube Assembly to Center Module

- Retract pushrods by turning handle 90° towards hinge side of door. When pushrods are retracted the squared portion of pushrod should have approximately ¾" visibly extended from center module.
- Insert and screw threaded rod into pushrod until bottom bolt will clear the face of the socket by 3⁄16". You will insert approximately 11⁄16" of threading into push rod.

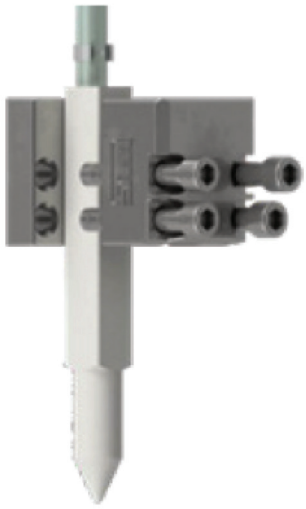




STEP 11

Install Bottom Bolt Guide

- Mount bottom bolt guide and spacer plate using four (4) ½ -13 x 2 ½" hex head screws. Spacer plate and bolt guide should encase the bolt with spacer to door side and mounting holes toward floor. **DO NOT fully tighten.**



STEP 12

Mark, Prep, and Install Bottom Socket or Bolt Receiver (not included)

- With door held closed, use bottom bolt to mark positioning of bottom socket, cavity, or receiver.
- Prep and install. If using the KSL-FX-00-D25 (S3-SFG1) floor socket, a 1 ¼" hole needs to be drilled to a 2" depth.

STEP 13

Test Operation of Bottom Assembly and Door

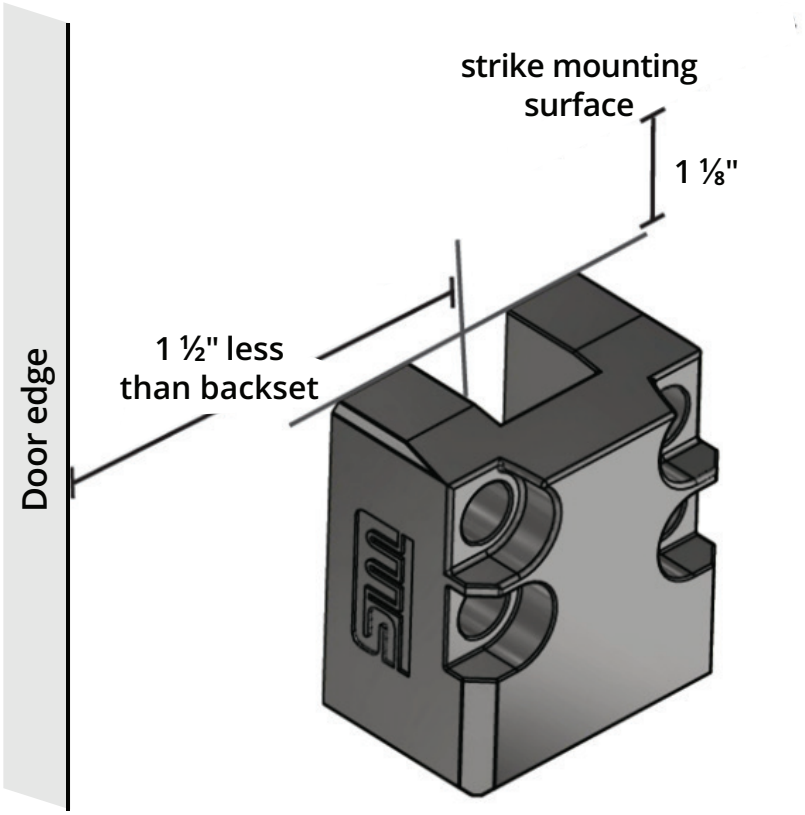
- Test center module, bottom bolt, and bolt socket/receiver to ensure proper operation.
- Bottom bolt in retracted state should clear socket by 3⁄16". If length of assembly needs to be adjusted, adjust tube assembly at pushrod. Tube assembly must have a minimum engagement of 3 threads.
- Once correctly adjusted, lock tube assembly in place using the locknut on pushrod.
- Fully tighten bolt guide mounting screws.

STEP 14

Mark and Prep Door for Top Bolt Guide

NOTE: The vertical line measurements are based on the typical backset of 5".
If using an atypical backset subtract 1 ½" to backset to find vertical line.

- Mark two intersecting lines on door: a 2" vertical line 3 ½" from lock-side edge of door and a 3" horizontal line that is level to the strike mounting surface and 1 ⅛" below the strike mounting surface.
- Hold the top bolt guide spacer plate with mounting holes up, flush to, and below the horizontal line as well as center of the vertical line.
- Mark center of mounting holes.
- Drill and tap marks for ½ -13 x 2 ½" hex head screws.



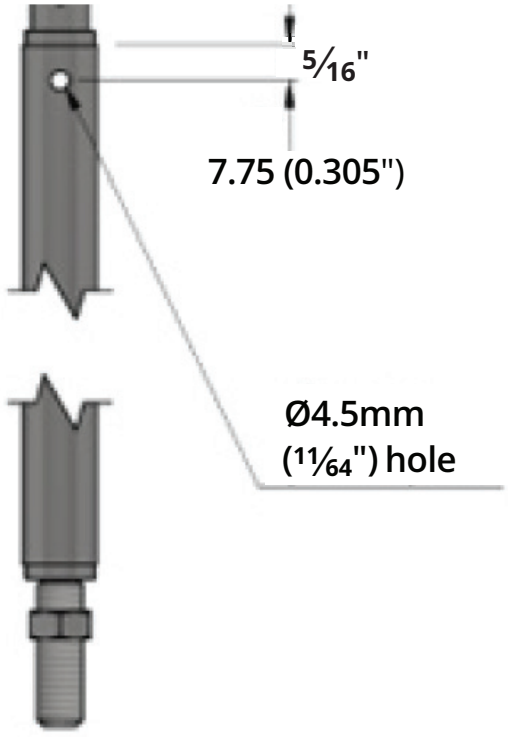
STEP 15

Mark and Drill Holes on Top Tube and Extension Tube(s) for Tube Clip

- For any tube end to be connected to another tube using a tube connector, mark a dot on a single side of the tube at 5⁄16" from end.
- Using a 11⁄64" drill bit, drill hole through mark; only drilling through marked side of tube.
- Insert tube connector so that hole of connector and drilled hole align. Using 11⁄64" drill bit, use aligned holes as a guide to drill hole through opposite side of tube.

NOTE: For tube extensions that will recieve drilled holes on both ends of tube, ensure holes are on same sides of tube, so that both tube clips can face door.

NOTE: The uppermost tube extension will be connecting to the bolt and will only need holes drilled through non-bolt side.



STEP 16

Install Top Tube to Center Module

NOTE: It may be easier for some doors to build tube assembly before attaching to center module; for other doors, especially taller doors, it will be easier to build the top tube assembly sections at a time while already being connected to center module. For a 9' door, a top tube and single tube extension is sufficient. Each additional extension tube will add up to 39" of height.

- Ensure Coniston is in retracted state and screw top tube in to upper pushrod. Insert and connect threaded rod in to pushrod approximately ¾" with drilled hole on opposite end of tube facing out (90° to door).

STEP 17

Add Extension Tube(s) to Top Tube/Assembly

NOTE: If only one extension tube is being used (9' or less door), skip to Step 18.

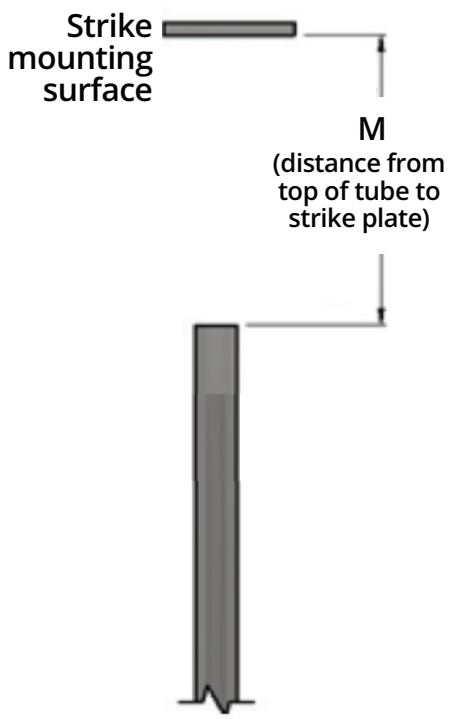
- Attach tube extension to top tube using provided tube connector and tube clip. It is recommended to fit tube clip from side of tube that will be facing the door for security/safety.
- Repeat previous Step 17 instruction for all additional tube extensions, except the uppermost tube. For taller doors, it may be beneficial to install some guide brackets to help steady top tube assembly.
- Refer to Step 25 for guidance on installation.

STEP 18

Measure and Cut Uppermost Extension Tube for Top Assembly

NOTE: All adjustments to the door, hinges, and frame should be made before measuring or cutting tubes.

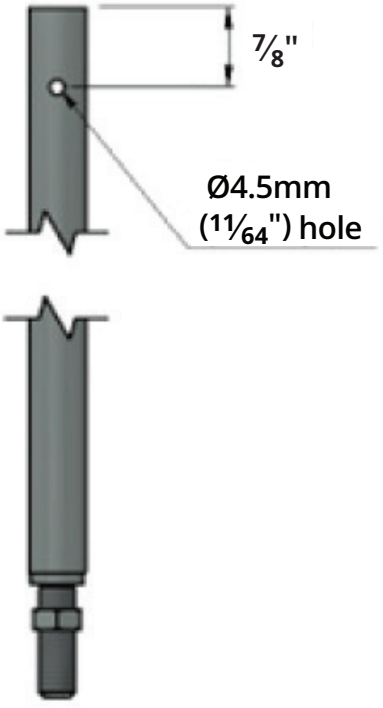
- With center module in retracted state, measure the distance (M) from the top of the final full length tube extension to strike plate mounting surface.
- Cut top tube to length (L).
  L = M - 6"



STEP 19

Mark and Drill Holes on Uppermost Extension Tube for Bolt Installation

- Mark a dot on the upper (bolt) end of tube at ⅞" from end. Ensure that the mark is the opposite end but same side of tube as holes previously drilled in Step 15.
- Using a 1⁄64" drill bit, drill hole through mark; only drilling through marked side.
- Insert tube connector so that hole of connector and drilled hole align. Using 1⁄64" drill bit and tube connector as drill guide, drill hole through opposite side of tube.
  This process will ensure holes align.



STEP 20

Install Top Bolt and Uppermost Extension Tube

- The top bolt's tube connector is protruding from the side of the bolt that will be closest to the door when installed. Connect the top bolt to the uppermost tube extension using tube clip. It is recommended to fit the tube clip from the side of tube that will be towards door for security/safety.
- Install upper extension with top bolt as in previous bullet to top tube assembly (Steps 16 & 17). Connect using tube clip. It is recommended to fit the tube clip from the side of tube that will be towards door for security/safety.

STEP 21

Install Top Bolt Guide

- Mount top bolt guide and spacer plate using four (4) ½ -13 x 2 ½" hex head screws.
- Spacer plate and bolt guide should encase the bolt with spacer to door side and mounting holes toward floor. **DO NOT fully tighten.**

STEP 22

Install Top Strike with Screws

- For push-side installation, roller side is flush with the door stop on the door side. For pull-side installation, roller side is away from frame on bracket.

STEP 23

Test and Adjust Operation of Door with Strike

- Test operation of door with top strike. In retracted state, the top bolt should clear the strike by 3⁄16". If length of top tube assembly needs to be adjusted, adjust tube assembly at push rod. Tube assembly must have a minimum engagement of 3 threads.
- Once adjusted, lock the tube assembly in place using the locknut on the pushrod.
- Fully tighten top bolt guide and top strike mounting screws.

STEP 24

Install Roll Pins to Top Strike

- Using ¼" drill bit, drill out pilot holes.
- Insert roll pins.

STEP 25

Install Guide Brackets

NOTE: Adjustments to locations of guide brackets can be made without decreasing the integrity of the system. If atypical placement is desired, ensure that locations are spaced away from tube clips so that the Coniston can freely move during operation.

- Top and bottom tube – Extend bolts by turning handle 90° towards floor. Install one (1) guide bracket at center of tube. Use bracket to mark holes ensuring the bracket is parallel to top and bottom edge of door and allows tube to freely move through guide bracket. Bracket and spacer plate should envelope the tube with the spacer plate on door side of tube.
- For tube connectors – Extend bolts by turning handle 90° towards floor. Where tube connectors are located, install one (1) guide bracket onto adjacent tubes. Brackets should be installed so that there is 3" of space from end of tube extension to nearest edge of guide bracket (approximately 6" between guide brackets). **DO NOT install guide bracket onto uppermost extension tube.**
- For uppermost extension – If the tube is shorter than 7", do not install any guide brackets on uppermost extension tube. If longer place one, as directed in previous bullet in Step 25.

STEP 26

Test Operation of Coniston and Door

- Check that bolts extend into their respective receivers/sockets and that all brackets, guides, and locknuts have been tightened.

End Instructions