

Installation Instructions for 822 Removable Mullion

Planning the installation

Overview

These instructions cover the following 822 removable mullion products. Make sure that you know what type of mullion is being installed:

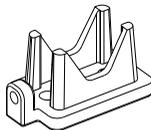
Product Nomenclature	Attributes		
	Key-removable (KR)	Hurricane-rated (HC)	Fire-rated (FL)
822			
KR822	■		
HC822		■	
HCKR822	■	■	
FL822			■
FLKR822	■		■
FLHC822		■	■
FLHCKR822	■	■	■

Before you begin

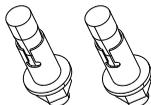
Doors and finished floor must be properly installed prior to the mullion installation. Install exit hardware AFTER mullion installation.

Components checklist

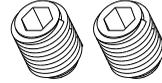
Bottom fitting



Anchors, (2)



Set screws, (2)
5/16 – 18 UNC ×
5/8" long



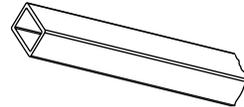
HC adapter set screw
1/4 – 20 UNC × 3/8" long (HC units only)



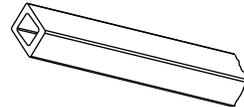
5/32" Hex wrench



1/8" Wall mullion tube (non-HC units only)



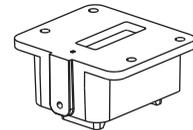
5/16" Wall mullion tube (HC units only)



Head cap mounting screws, (4) 1/4 – 20 UNC × 3/4" long



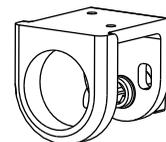
Standard head cap (non-KR units only)



Key-removable head cap (KR units only)



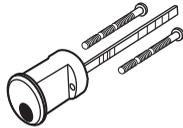
Cylinder mount and screws (KR units only)



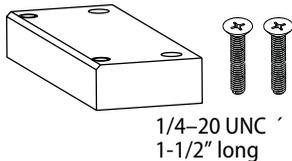
#8-32 UNF ×
1/2" long

Assembling the mullion

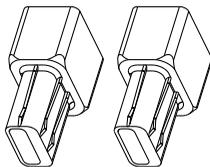
Rim cylinder and screws, provided by others (KR units only)



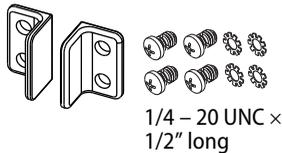
Mullion cap spacer and screws (if ordered for frame stop widths less than 3.5")



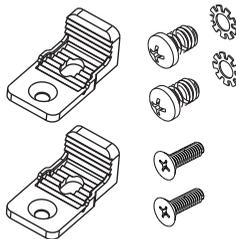
Mullion adapters, (2) (HC units only)



Mullion stabilizers, (2) with screws and lock washers (FL units only)



Interlock strike hook kits (2) (HC and FL units only)
Reference the appropriate device instructions for installation information.



1 Assemble cylinder into head cap (KR units only)

Note: For non-KR mullions, begin with task 2.

- 1 If necessary, remove the cylinder mount from the head cap assembly.
- 2 With the key removed, and the cam resting against the stop, install the rim cylinder through the cylinder mount, inserting the tailpiece into the cross-hair of the cam. See Figure 1.

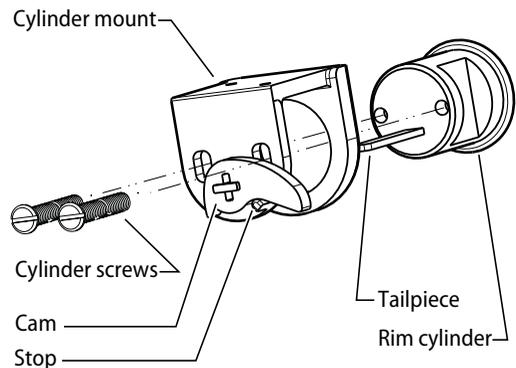


Figure 1 Assembling the cylinder mount

Installing the mullion

- 3 Check assembled dimensions and make adjustments as needed. See Figure 2.
- 4 Install the cylinder screws. Turn the key to move the cam as needed.
- 5 With the key removed, insert the cylinder assembly into the head cap assembly. See Figure 3.
- 6 Attach the cylinder assembly with the two screws.
- 7 Check for proper operation: turning the key should move the latch freely.

2 Mount bottom fitting

Note: If a threshold is installed in the opening, it must be cut to allow the bottom fitting to attach directly to the finished floor.

- 1 Center the bottom fitting on the floor between and flush with the closed doors. See Figure 4.
- 2 Mark the center of each mounting hole.
- 3 Drill two holes in the floor, 3/8" diameter by 1-3/4" deep.
- 4 Fasten the bottom fitting in place with the anchors provided.

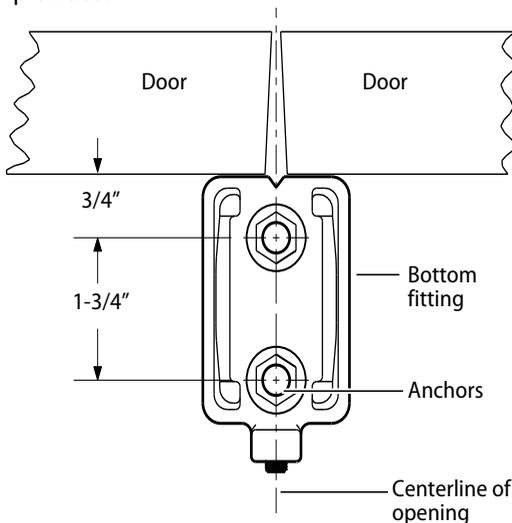


Figure 4 Installing the bottom fitting (overhead view)

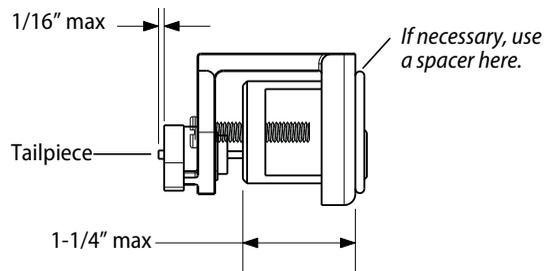


Figure 2 Maximum dimensions for cylinder assembly

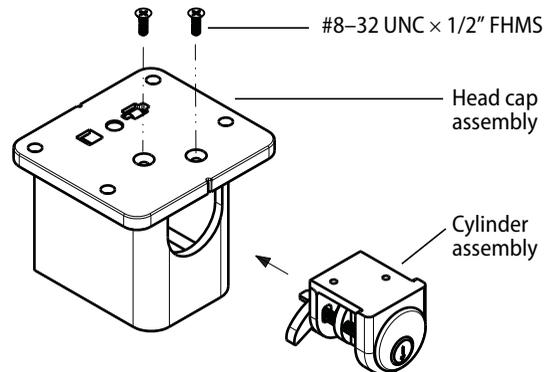


Figure 3 Installing the cylinder assembly into the head cap assembly

Installing the mullion

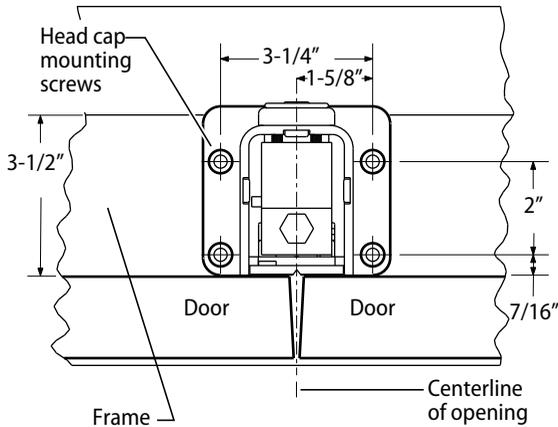


Figure 5 Installing the head cap (underside view)

3 Prepare frame for head cap

- 1 Center the head cap on the frame between and flush with the closed doors. See Figure 5.
- 2 Mark the center of each mounting hole.

Note: *Minimum recommended width of the frame stop is 3-1/2". For smaller frame stop widths, the mullion cap spacer must be used.* See Figure 6 and Figure 7.
- 3 Drill (size #7) and tap the holes for 1/4-20 UNC machine screws.
- 4 **For KR units only**, attach the head cap to the frame with the four screws provided. For non-KR units, continue to the next step without attaching the head cap to the frame.

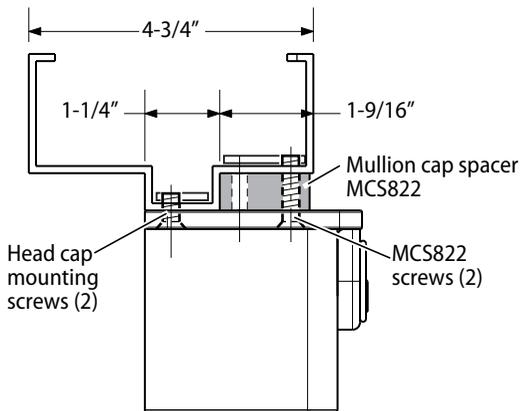


Figure 6 Mullion cap spacer with 1-1/4" frame stop

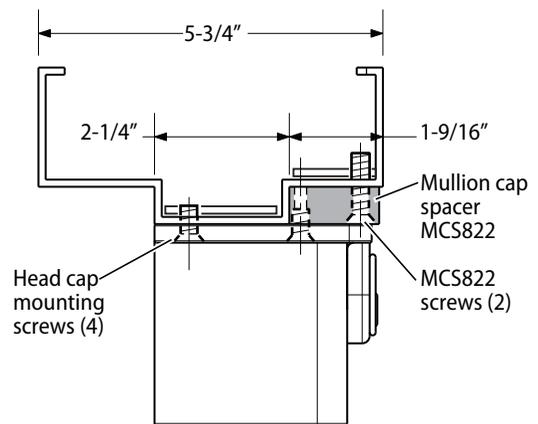


Figure 7 Mullion cap spacer with 2-1/4" frame stop

Installing the mullion

4 Cut mullion tube (if necessary)

Note: Proper mullion tube length is critical to mullion performance!

- 1 Measure the distance 'H' as shown in Figure 8.
- 2 Determine the appropriate length 'L' of the mullion tube using .

Table 1 — Determining the mullion tube length

Mullion type	Tube length, 'L' (inches)
822, FL822	$L = H - 1\text{-}3/8$
KR822, FLKR822	$L = H - 3\text{-}1/4$
HC822, FLHC822	$L = H - 5\text{-}7/8$
HCKR822, FLHCKR822	$L = H - 7\text{-}3/4$

Note: The length of the HC tubes is 4-1/2" shorter than non-HC tubes due to the need for adapters at each end.

- 3 Measure the mullion tube and compare the measurement to the calculated 'L.' If the tube needs to be cut, mark the cut line and extend it around all faces of the tube. If the tube is already prepared for strikes, be sure to make the marks at the top end, farthest from the strike holes. See Figure 9.
- 4 Cut the tube squarely, using the marks for guidance.

Note: Ensure the cut is square all around the tube for proper installation.
- 5 If possible, apply rust protection to the cut surface of the tube.

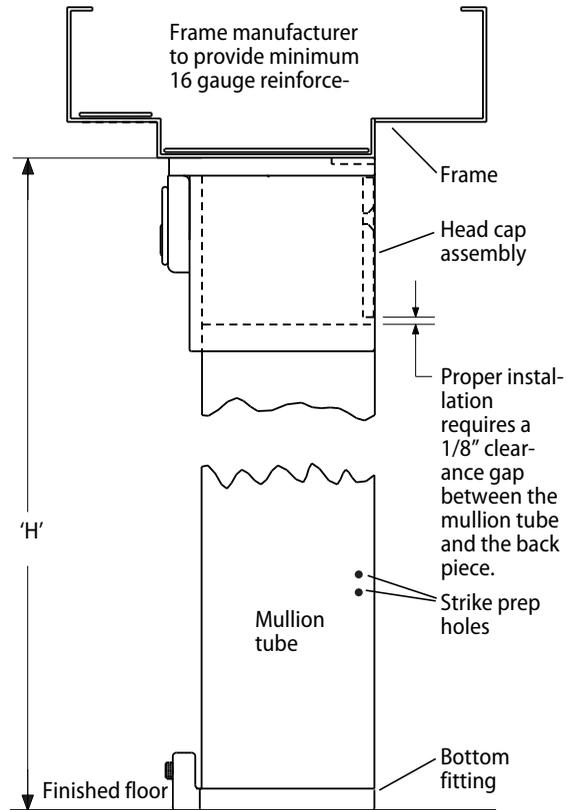


Figure 8 Determining the length of the mullion tube, KR unit shown

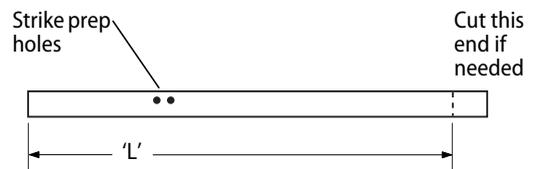


Figure 9 Cutting the mullion tube

Installing the mullion

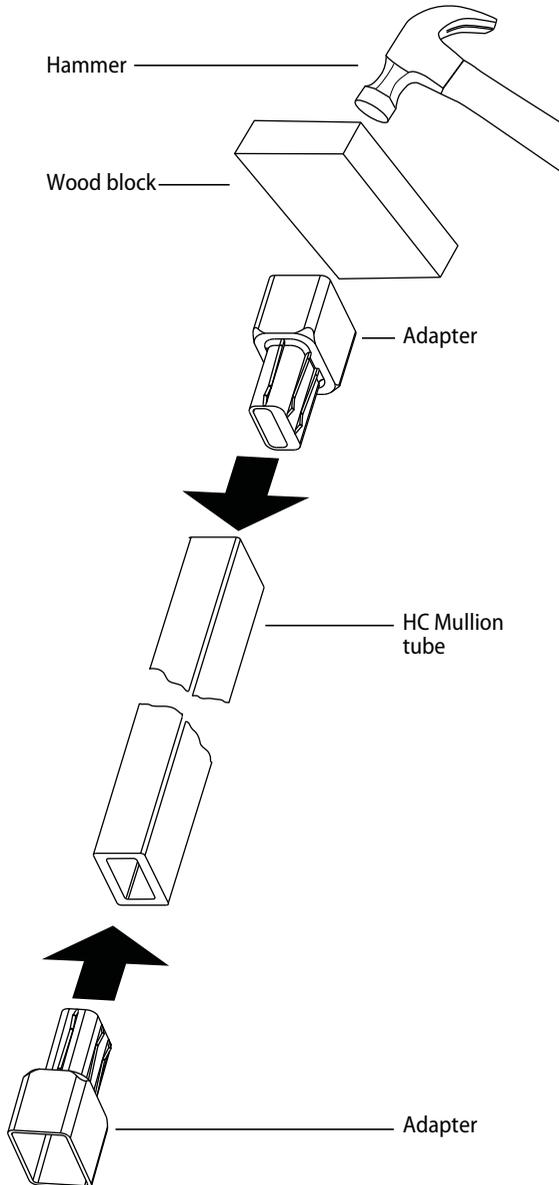


Figure 10 Driving in the adapters for HC units

5 Install adapters into tube (HC units only)

- 1 Drill and tap a hole into one of the long faces at the top end of the tube as shown in Figure 11.
- 2 Insert an adapter into the bottom end of the tube and drive it in until flush using a block of wood and a hammer. See Figure 10. DO NOT strike the adapter directly with the hammer because damage may occur to the product. See Figure 10.

Note: If the weld bead inside the tube interferes with the ribs on the adapter, rotate the adapter 180 degrees and re-insert.

- 3 Repeat the previous step to install the second adapter into the top end of the tube.
- 4 Install the 1/4–20 UNC set screw for the top adapter and tighten securely.

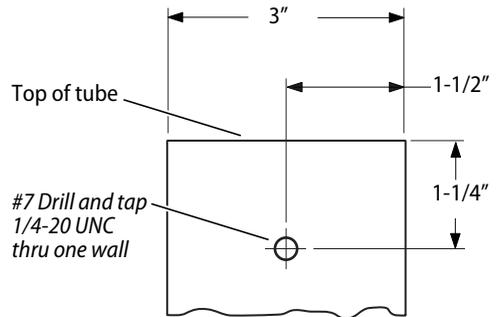


Figure 11 Drilling and tapping the set screw hole

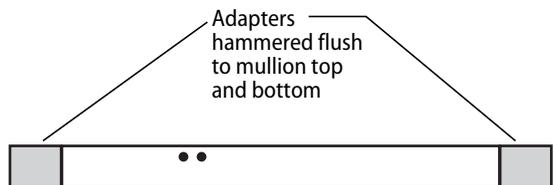


Figure 12 HC mullion assembled (side view)

Installing the mullion

6 Install mullion

For all non-KR units

- 1 Insert the head cap into the top of the tube.
See Figure 13.
- 2 Place the bottom of the tube onto the bottom fitting and pivot the tube up into the vertical position.
- 3 Attach the head cap to the frame with the four screws provided.
- 4 Tighten the 5/16–18 UNC set screws on the head cap and bottom fitting to secure the mullion in place.
See Figure 14.

For all KR units

- 1 Place the bottom of the tube onto the bottom fitting and pivot the tube up toward the vertical position.
- 2 Engage the top of the tube into the head cap latch. It should click into place securely.
- 3 Install and adjust the 5/16–18 UNC set screw for the bottom fitting, leaving it loose enough for the mullion to be removed without turning the screw.
See Figure 14.
- 4 Test the KR function. Turning the key clockwise should allow the tube to release.

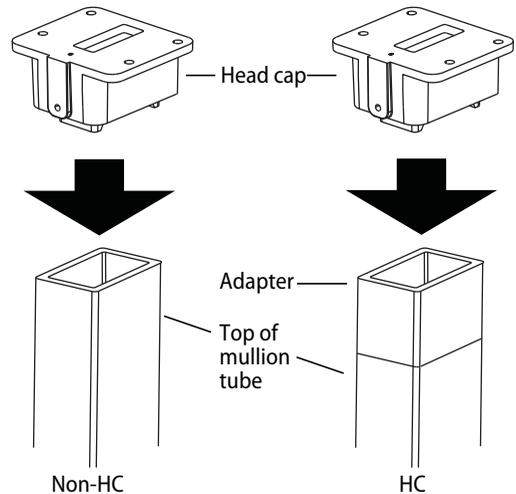


Figure 13 Placing the head cap onto the top of the mullion (non-KR units only)

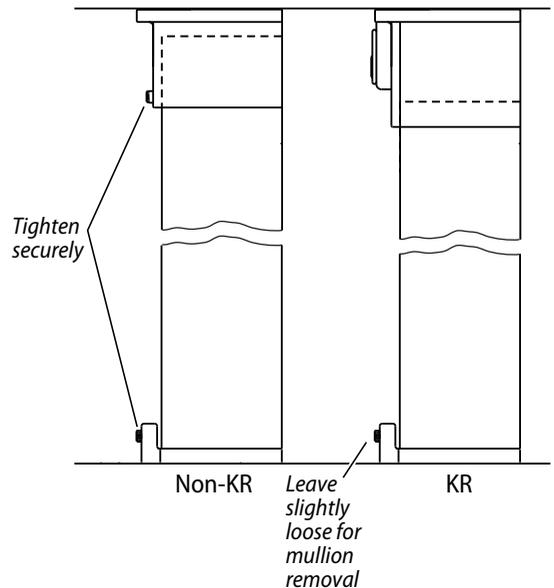


Figure 14 Set screws

Securing the mullion

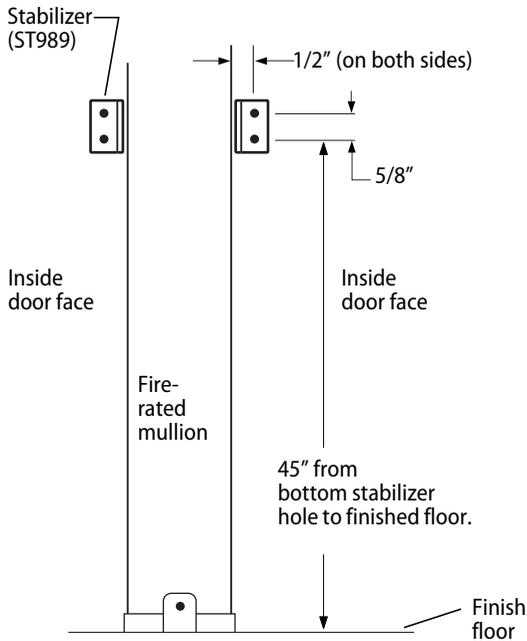


Figure 15 Installing stabilizers on FL mullions only

7 Install mullion stabilizers (required for FL units)

- 1 Mark the holes for the stabilizers as shown in Figure 15.
- 2 Drill (size #7) and tap holes for 1/4–20 UNC machine screws.
- 3 Attach one stabilizer to each door leaf using screws and lock washers provided.