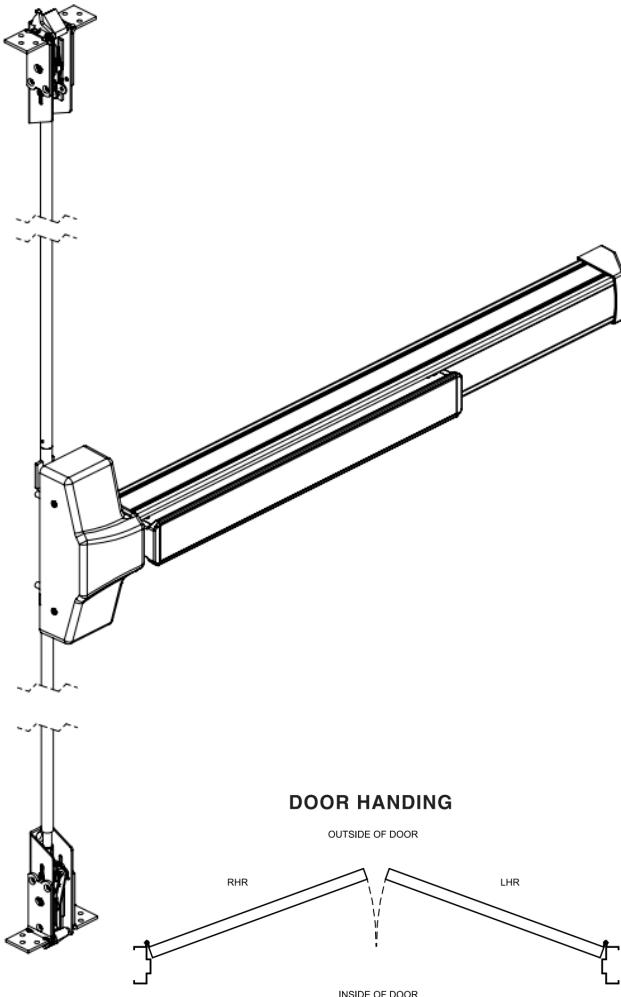


DEVICES COVERED IN THIS DOCUMENT:

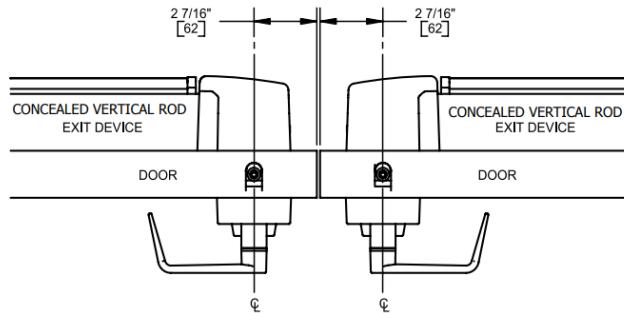
4500C/4500CF Concealed Vertical Rod Device

4500K/4500KF Concealed Less Bottom Rod Device

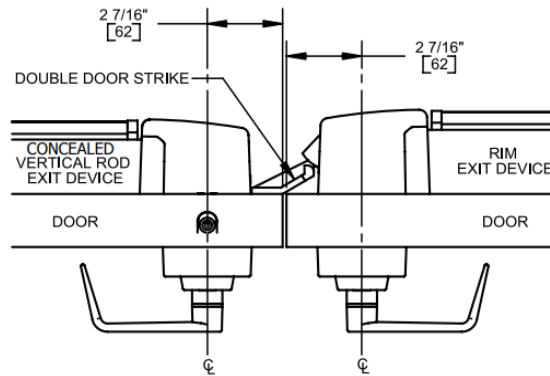


APPLICATIONS

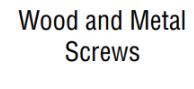
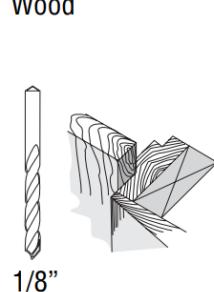
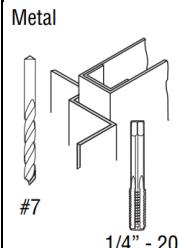
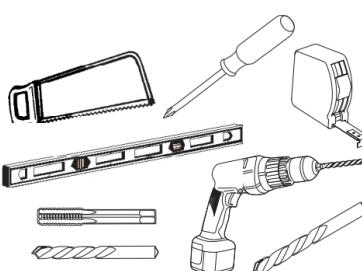
Double Door



Double Door with Rim Device



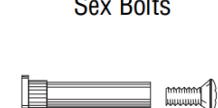
TOOLS REQUIRED



For wood doors, drill
1/8" hole

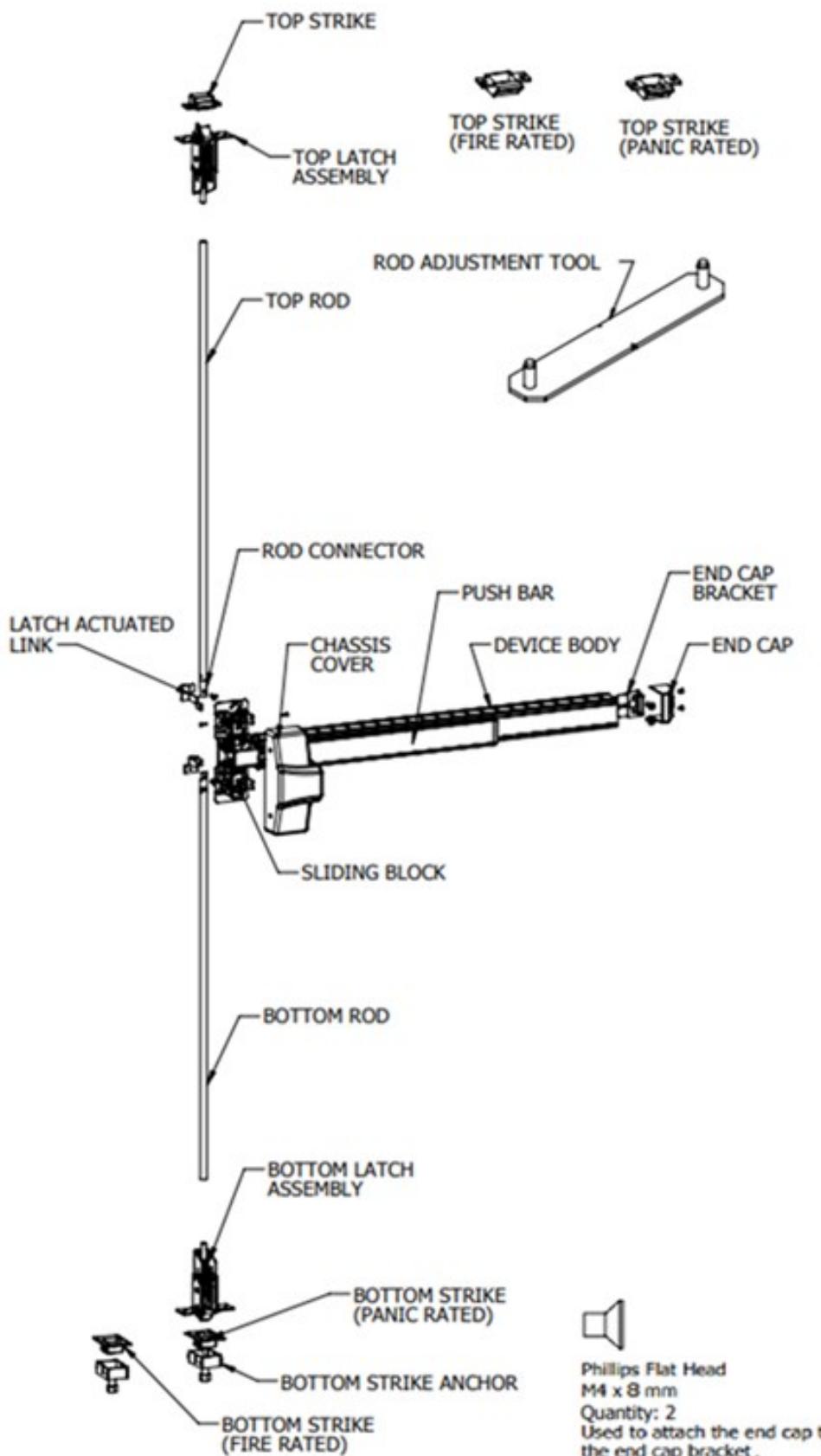


#7 drill, 1/4" - 20 tap



Drill 5/16" thru from device side. Drill 3/8" from other side (pull side).

Check building and fire codes to see if your application requires the use of sleeve nuts and bolts.


Included Screws:


Phillips Pan Head
#10-24 x 0.75"
Quantity: 12
Used to attach the top and bottom latches to the door.



Phillips Flat Head
M5 x 15 mm
Quantity: 2
Used to attach the rod connector to the latch actuated link.



Phillips Flat Head
M4 x 6 mm
Quantity: 4
Used to attach the chassis cover to the chassis (4).



Phillips Pan Head
1/4-20 x 0.75"
Quantity: 6
Used to attach the exit device to the door and/or trim.



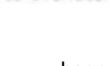
1/4"-20 x 1-5/8" through-bolt sleeves
Quantity: 6
Used to attach the exit device to the door.



Flat Head
#12 x 1-1/4" long
Quantity: 6
Used to attach the exit device to wood doors.



Phillips Flat Head
M4 x 8 mm
Quantity: 2
Used to attach the end cap to the end cap bracket.



Custom Screw
Quantity: 2
Used to attach the sliding block to the latch actuated link.

1. PREPARE THE DOOR

- A. Mark the horizontal centerline of device by drawing a line across the door at 40" above the finished floor. See template for more information.
- B. Mark the backset line and the four mounting holes for the chassis using the template.
- C. Prepare door cutouts and latch brackets as shown in the template.

2. ASSEMBLE RODS AND LATCHES

BOTTOM ROD

- A. Screw bottom rod into latch assembly (see Figure 2-1).
- B. The bottom rod is pre-sized for a device mounted 40" off the finished floor. If necessary, the bottom rod can be cut down by removing the rod connector and cutting the rod following the steps in the top rod section.

TOP ROD

- A. For a non-standard door height cut the rod to length. Be sure to cut the unthreaded side of the rod and deburr edges.
- B. For devices used on doors of 10 foot height the top rod comes in two pieces. Connect the two ends using the extension rod connector (see Figure 2-2).
- C. Slide the rod into the drilling guide (see Figure 2-3), making sure the rod is fully inserted in the guide.
- D. Lay the rod with drilling guide flat on a table. Use one of the existing 1/8" guide holes on any side of the drilling guide to drill an 1/8" hole through the rod.
- E. Slide the rod connector into the newly drilled end of the rod. Line up the hole in the rod connector with the hole that was just drilled into the rod.
- F. Use a hammer to tap the provided spring pin into the hole until it is fully seated. Check for a secure connection between rod and rod connector.
- G. Screw top rod into latch assembly (see Figure 2-4).

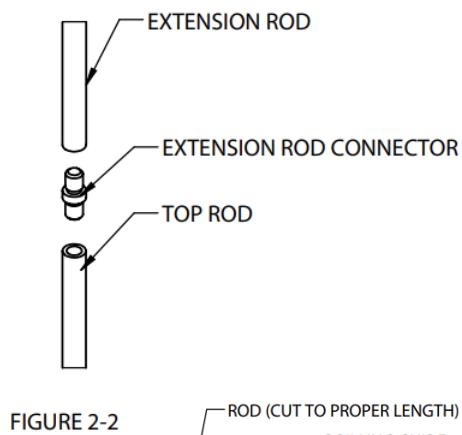
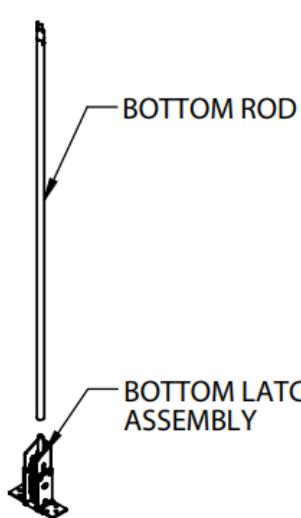


FIGURE 2-2

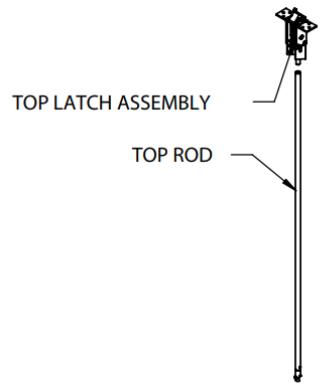
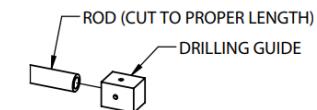
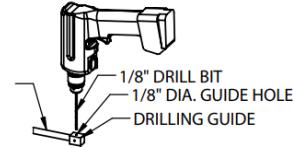


FIGURE 2-4



ROD (CUT TO PROPER LENGTH)
DRILLING GUIDE



ROD (CUT TO PROPER LENGTH)
1/8" DRILL BIT
1/8" DIA. GUIDE HOLE
DRILLING GUIDE

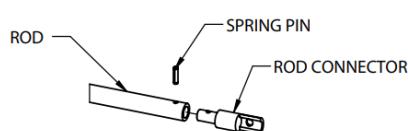
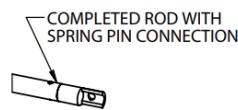


FIGURE 2-3



3. INSTALL LATCHES

- A. Insert top latch assembly into door and fasten to top latch mounting bracket at top of door by supplied mounting screws (see Figure 3-1).
- B. Insert bottom latch assembly into door and fasten to bottom latch mounting bracket at bottom of door by supplied mounting screws (see Figure 3-2).
- C. Use shims as necessary to properly position latches. The top of the latch housing bracket should be level with the edge surface of the door (see Figure 3-3).

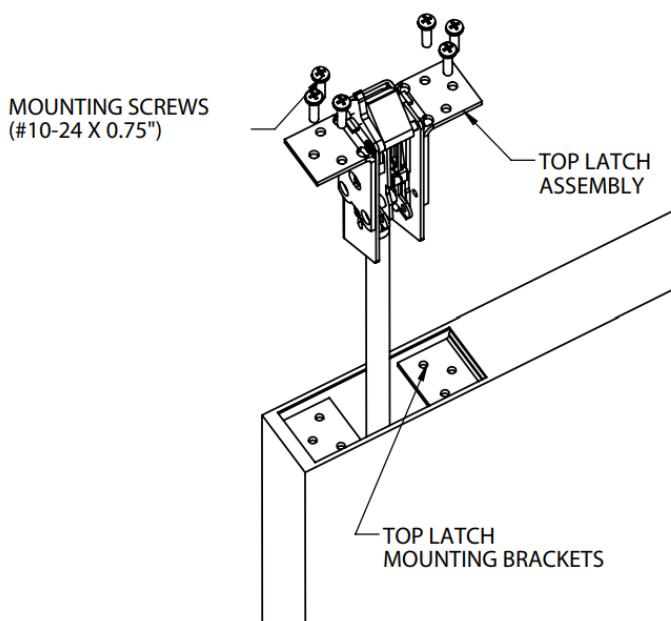


FIGURE 3-1

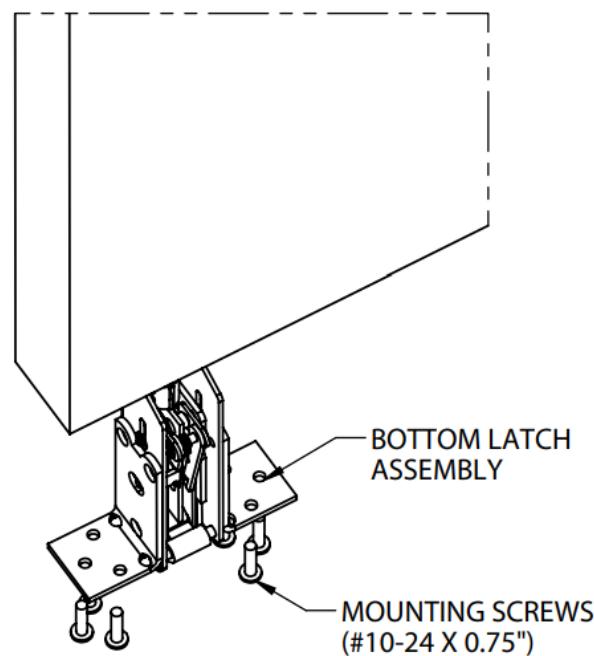


FIGURE 3-2

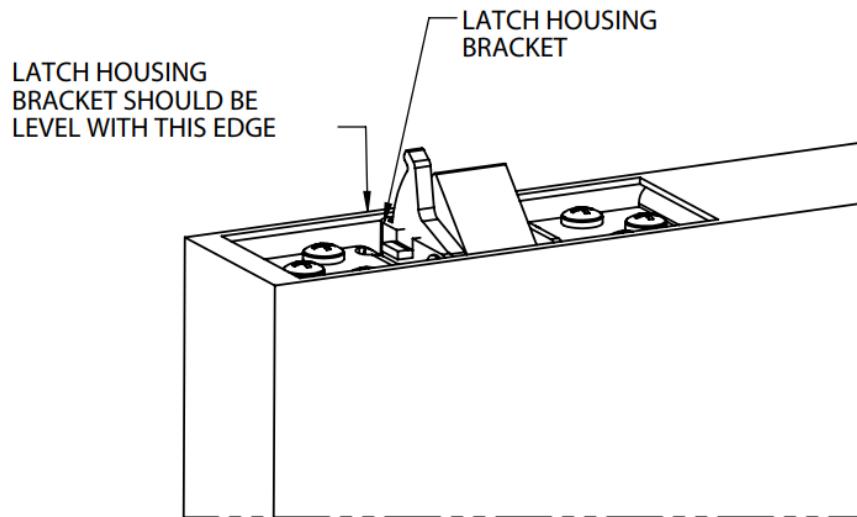
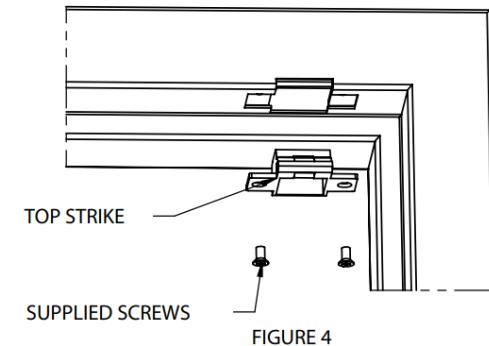


FIGURE 3-3

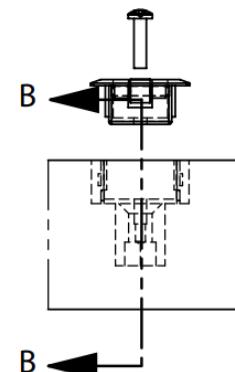
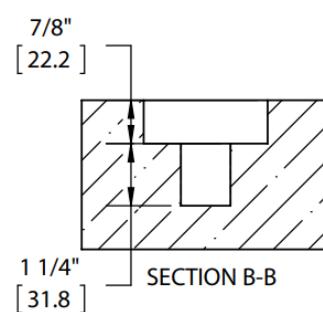
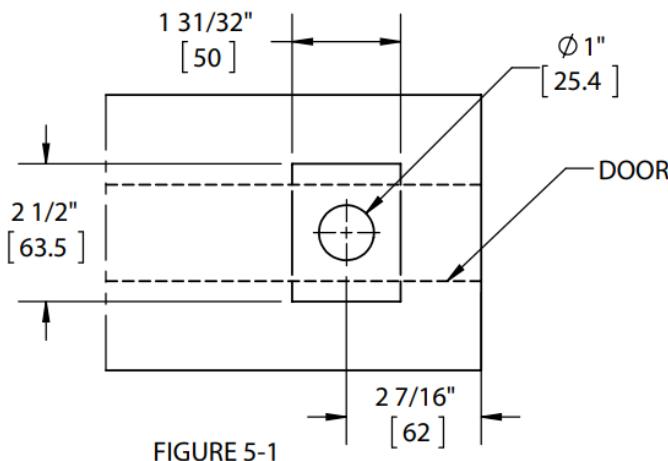
4. INSTALL TOP STRIKE

- Prepare the frame by cutting out the holes and installing the mounting brackets as described in the template.
- Install the top strike in the frame using the supplied screws.



5. INSTALL BOTTOM STRIKE

- Mark the bottom strike anchor location using the template or Figure 5-1.
- Cut the hole out of the finished floor or threshold for the bottom strike. The hole should be $7/8"$ deep (see Figure 5-2).
- At the bottom of the strike cutout, mark and drill a 1" diameter by 1-1/4" deep hole.
- Fill with grout and insert anchor. Make sure anchor is flush and level with floor
- Insert bottom strike into anchor and secure with a machine screw. Adjustment teeth are provided on bottom strike for fine tuning the bottom strike distance from bottom latch.

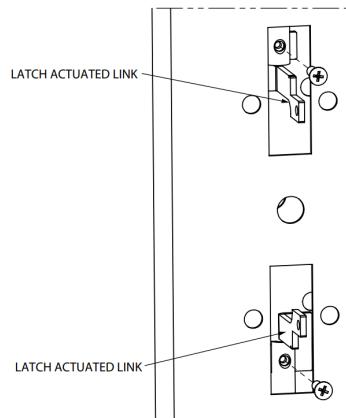


6. HANG DOOR

Hang the door with installed latches according to the manufacturer's directions.

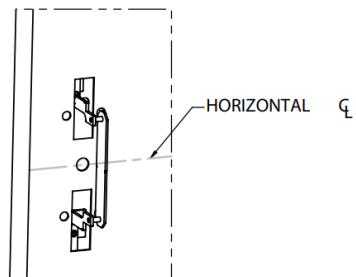
7. INSTALL LATCH ACTUATED LINKS

- A. Connect latch actuated link with top rod connector using supplied screw.
- B. Connect latch actuated link with bottom rod connector using supplied screw.



8. ADJUST VERTICAL RODS

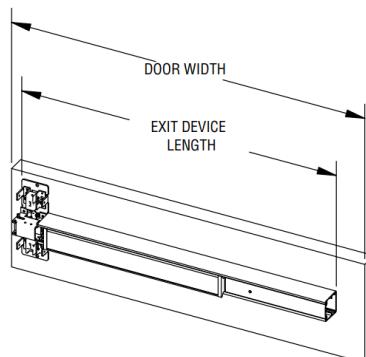
- A. Hook the protruding stud of the rod adjustment tool in the hole of the top latch actuated link.
- B. Make sure the top and bottom latch bolts are fully extended
- C. The small notches in the middle of the rod adjustment tool should be lined up with the horizontal centerline of the door.
- D. If the top rod is not at the proper height, adjust the height. Remove the latch actuated link. Insert a thumb and finger into the cutout and turn the rod. While looking towards the end of the rod, a clockwise turn will shorten the length, while a counter clockwise turn will increase the length.
- E. Once the top rod is in the proper position, adjust the bottom rod.
- F. Keep the adjustment tool attached to the top latch actuated link. If the hole on the bottom latch actuated link is below the bottom protruding stud of the adjustment tool, increase the length of the rod by turning it counter clockwise. If the hole on the latch actuated link is above the protruding stud on the adjustment tool, decrease the length of the rod by turning it clockwise.



9. CUT EXIT DEVICE TO LENGTH

The exit device comes in two models, one sized for a 36" door width and one sized for a 48" door width. For other door widths, cut exit device to appropriate length. Recommended overall length of the exit device is equal to door width minus 4 inches. Cut with hack saw or metal cutting saw blade. Deburr edges.

DOOR WIDTH RANGE FOR EXIT DEVICES	
36" MODEL	30" - 36" DOOR WIDTH
48" MODEL	36" - 48" DOOR WIDTH



10. INSTALL EXIT DEVICE

- A. Remove exit device chassis cover from the chassis assembly
- B. Place the exit device on the door and align the latch actuated links with the slots in the sliding blocks (see Figure 10-1). Secure with supplied screws.
- C. If using outside trim, make sure the cross-hatched trim spindle has mated with the cam on the exit device (see Figure 10-2).
- D. Bolt the head of the exit device using the supplied screws to the trim, sexbolts, or threaded holes in the door (see Figure 10-3).
- E. Remove the flush end cap from the flush end cap bracket. Place the flush end cap bracket inside the back end of the exit device. Mark the hole locations. For metal doors, drill and tap for 1/4" - 20 machine screws. For wood doors, pre-drill 1/8" holes. For sex bolts, drill 5/16" clearance holes on exit device side (push side) and 3/8" clearance holes on pull side (see Figure 10-4). Attach the end cap bracket to the door
- F. Install flush end cap bracket and flush end cap using supplied screws. If the flush end cap is not flush with the exit device, remove flush end cap and adjust the mounting screws and the flush end cap bracket as needed (see Figure 10-5).

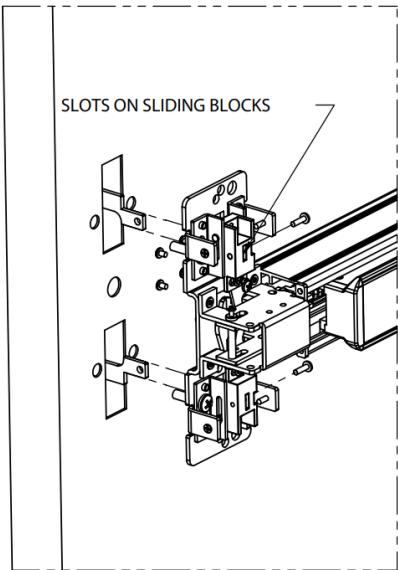


FIGURE 10-1

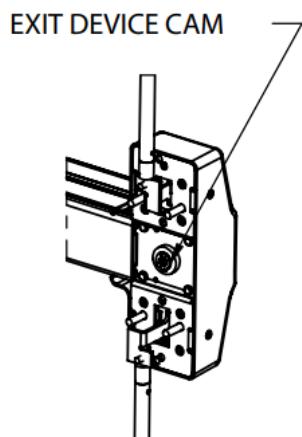


FIGURE 10-2

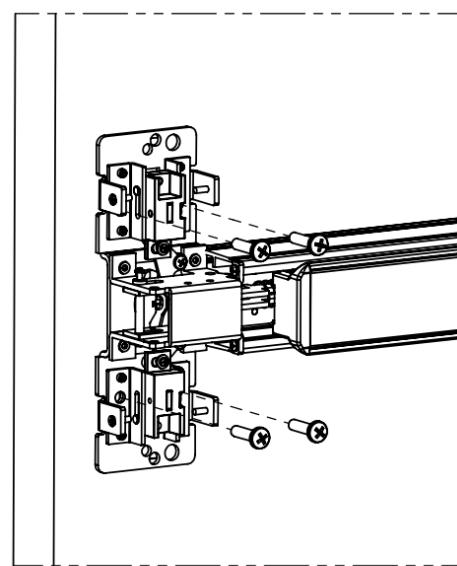


FIGURE 10-3

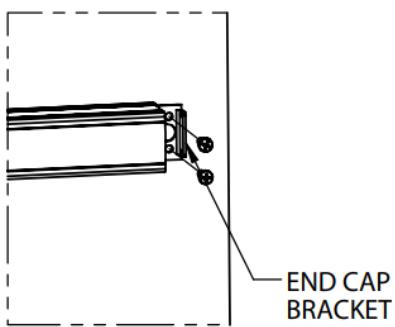


FIGURE 10-4

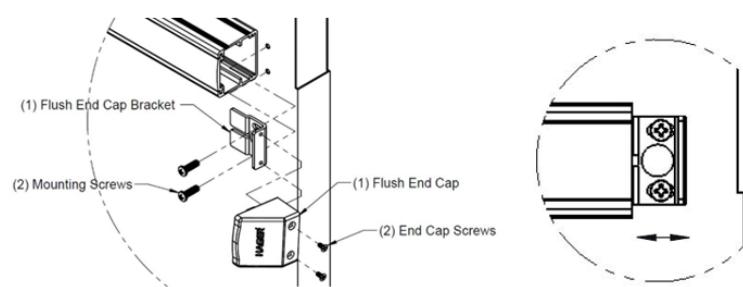


Figure 10-5

11. TEST OPERATION

- A. Depress the push bar. The top and bottom latches should be retracted.
- B. Press the deadlocking plate (see Figure 11) to fully extend the latch bolt.
- C. Check the top and bottom latches to ensure they are fully extended.
- D. Check device operation by pressing on the push bar to retract the latches and pressing the deadlocking plate to extend the latches several times.
- E. If the top latch is not retracting properly, or if the bottom latch is dragging on the floor, remove the exit device and adjust the rod lengths until the device works properly (see Troubleshooting Guide for additional information).
- F. If using trim, repeat steps 11A-11D using the trim lever instead of the push pad to retract the latches.

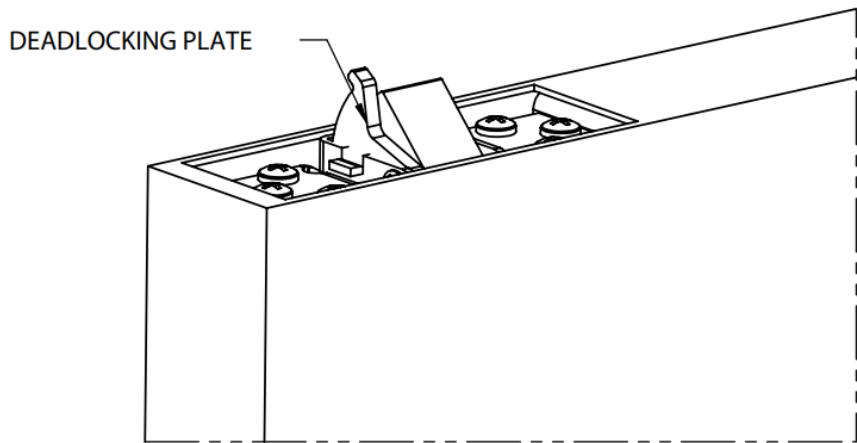


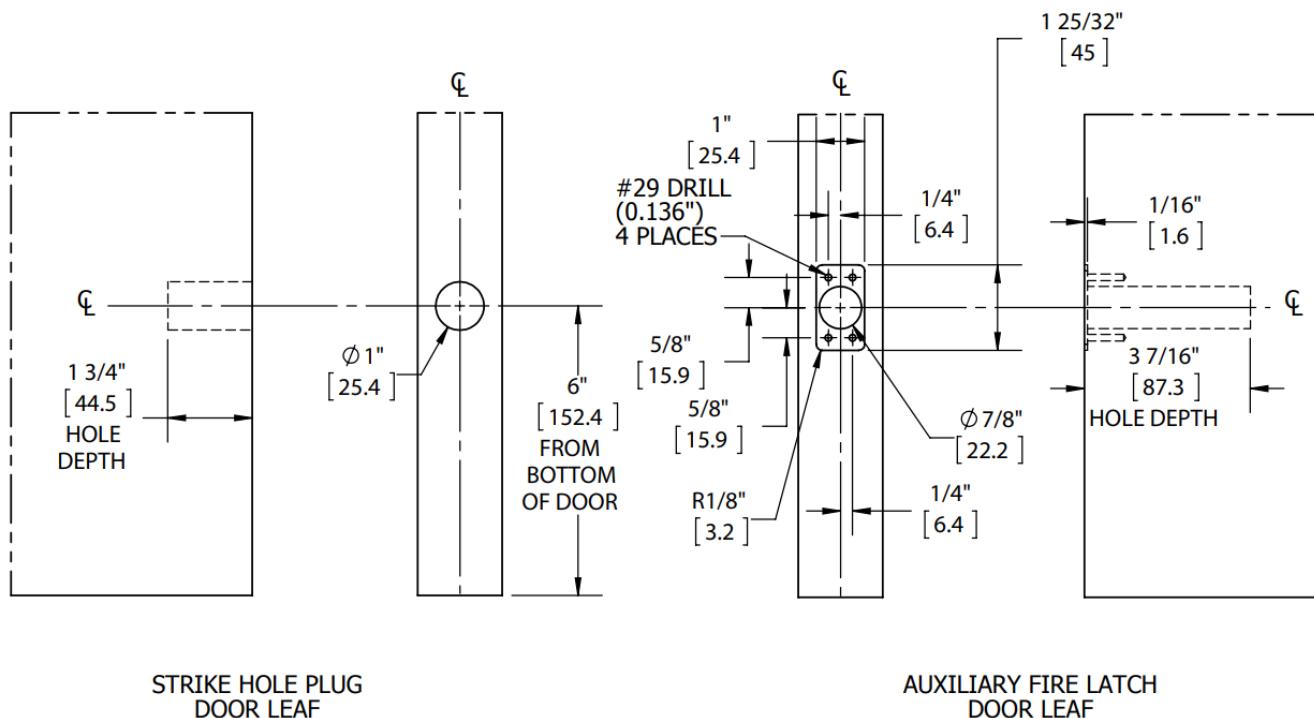
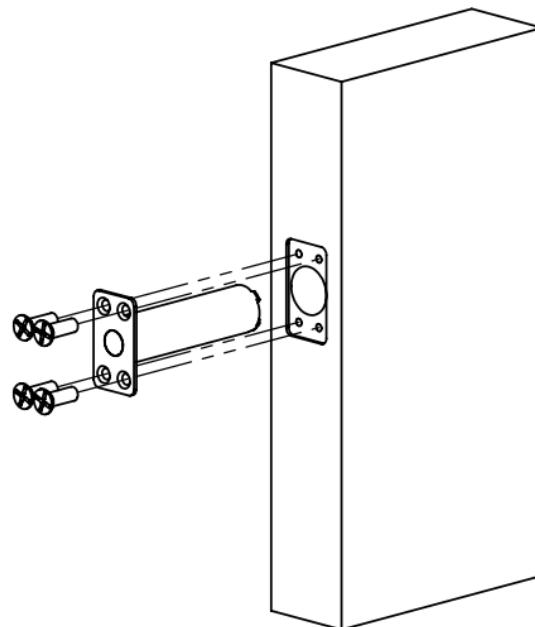
FIGURE 11

12. INSTALL HEAD COVER

Attach the device head cover using the supplied screws.

13 INSTALL AUXILIARY FIRE LATCH (for CLB devices only)

- A. The Auxiliary Fire Latch must be installed to maintain fire listing.
- B. Refer to Auxiliary Fire Latch installation instructions (I-ED00863) for details.



DOGGING OPTIONS

To increase the life of the device, dog down the device during periods of heavy traffic. The dogging feature is not available on fire-rated devices.

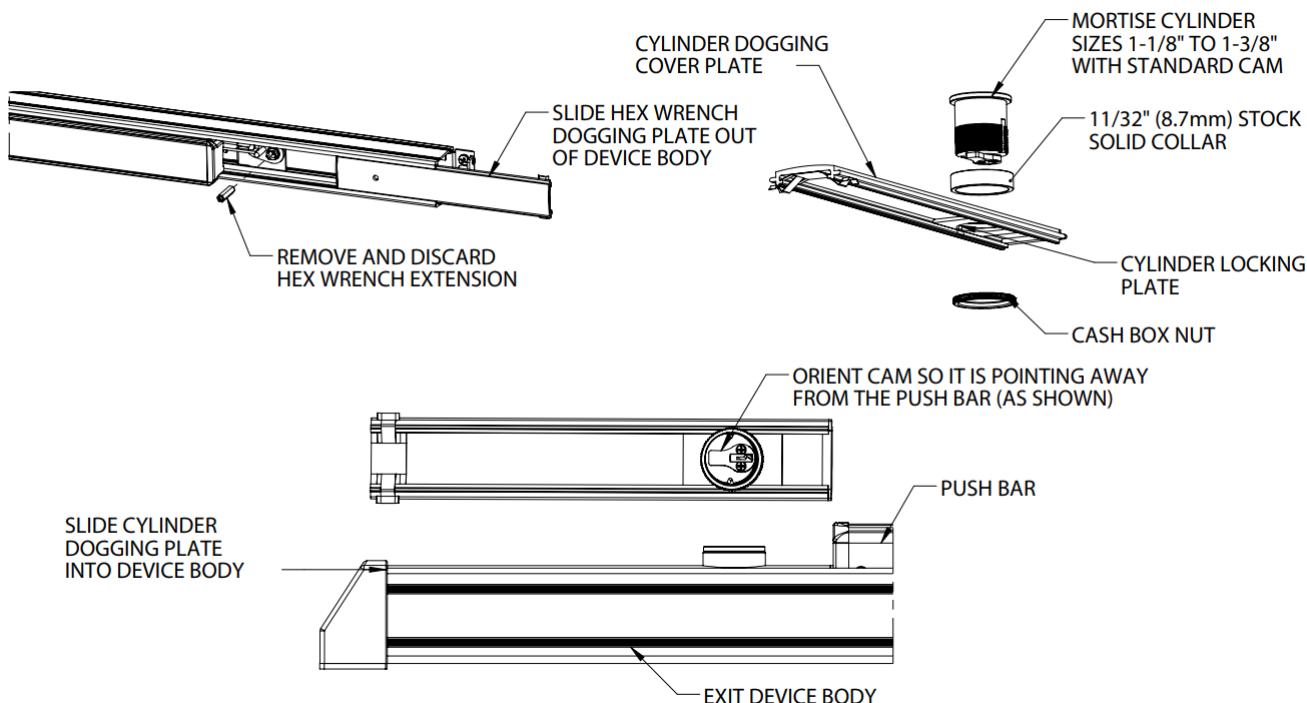
Hex Wrench Dogging

To dog the device, press the push bar, insert the dogging hex wrench, and turn clockwise 35 degrees. The push bar will remain depressed and the latch will stay retracted. To release the dogging, hold the push bar down, insert the dogging hex wrench, and turn counter clockwise 35 degrees. The push bar will return to the up position and the latch will extend to lock the door.

Cylinder Dogging

Required hardware for cylinder dogging includes one (1) mortise cylinder, lengths 1-1/8", 1-1/4", or 1-3/8" with a standard cam (0.723" [18 mm] screw center to tip of cam); and one (1) Hager cylinder dogging kit (4926), which includes one (1) 11/32" [8.7 mm] solid stock collar, one (1) cashbox nut, one (1) cylinder locking plate, and one (1) cylinder dogging cover plate.

For cylinder dogging, remove the dogging cover plate. Remove the hex wrench extension located below the dogging cover plate, which is held in place with a magnet. Install a mortise cylinder into the cylinder dogging cover plate using an 11/32" (8.7 mm) solid cylinder collar and cashbox nut. The cylinder should be oriented so the cam is pointing away from the exit device push bar. Install the dogging cover plate with cylinder and test dogging. Depress the push bar, insert key, and turn the key clockwise to dog device. Turn key counter clockwise to release dogging.

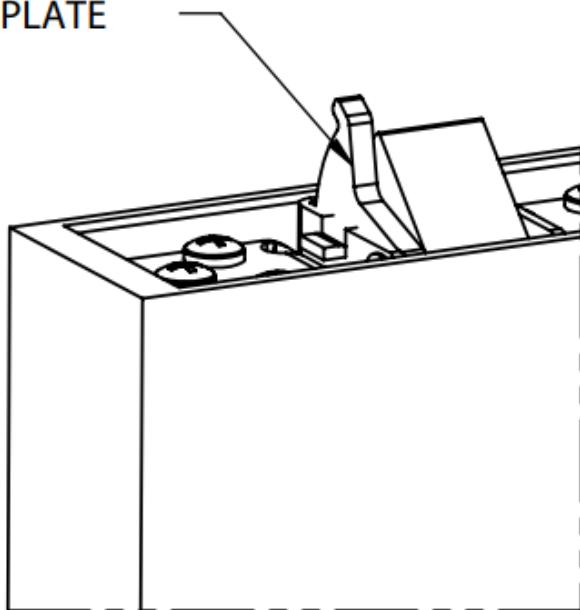


TROUBLESHOOTING GUIDE

When the push bar is depressed and the door is opened, the top and bottom latches should be held retracted until the door closes. When the push bar is released, both latches remain in the retracted state. When the door closes, and the top latch engages with the top strike, it releases the holding mechanism and allows the bottom latch to fully extend.

Listed below are a few issues that could be seen with the device and suggestions for how to adjust the system for better performance. All adjustments of the rod lengths require removal of the exit device.

1. If the system isn't working properly, double check that the latches are properly installed and are the proper distance from the strikes.
2. If the push bar is pressed, allowing the door to open, but the top latch does not stay retracted after the push bar is released, shorten the span of the top rod by turning it clockwise.
3. If the bottom latch does not fully extend when the top latch is fully extended, lengthen the span of the bottom rod by turning it counter clockwise.
4. If the bottom latch drags on the ground when the door is open, shorten the span of the bottom rod by turning it clockwise.
5. If the top latch does not fully extend when the deadlocking plate is pressed down, lengthen the span of the top rod by turning it counter clockwise (see figure below).

DEADLOCKING PLATE**FIGURE 14**