



# 2100(F), 2150(F) SquareBolt® & 1800(F) Rim Exit Devices Installation Instructions (Single Door or Pairs)

## Attention Installer

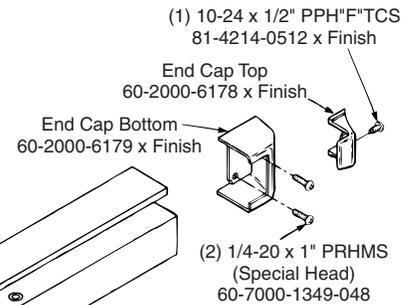
Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and Yale Locks & Hardware makes no representations or warranties concerning what such impact may be in any specific situation. When retrofitting any portion of an existing fire rated opening, or specifying and installing a new fire-rated opening, please consult with a code specialist or local code official (Authority Having Jurisdiction) to ensure compliance with all applicable codes and ratings.

Note: These installation instructions cover standard product only. To install options, such as shim kits or interlock brackets, refer to the instructions packed with the optional component.

Packed for reinforced metal doors. Optional sex nuts required for unreinforced metal and composite wood doors and are furnished standard with all fire-rated (F) devices. **Outside Trim:** Device is packed ready for any applicable Yale® Trim.

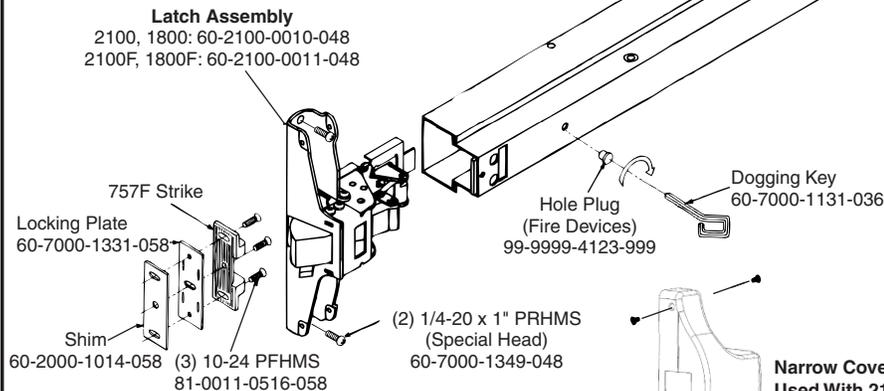
## 2100, 2150, 1800 (Panic Label) 2100F, 2150F, 1800F (Fire Label)

ABBREVIATION	FASTENER DESCRIPTION
PPH"FTCS	PHILLIPS PAN HEAD TYPE "F" THREAD CUTTING SCREW
PRHMS	PHILLIPS ROUND HEAD MACHINE SCREW
PFHMS	PHILLIPS FLAT HEAD MACHINE SCREW
PFHUMS	PHILLIPS FLAT HEAD UNDER CUT MACHINE SCREW

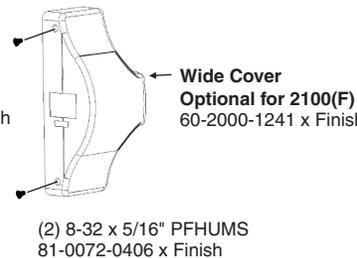
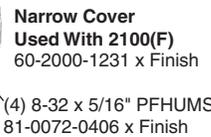
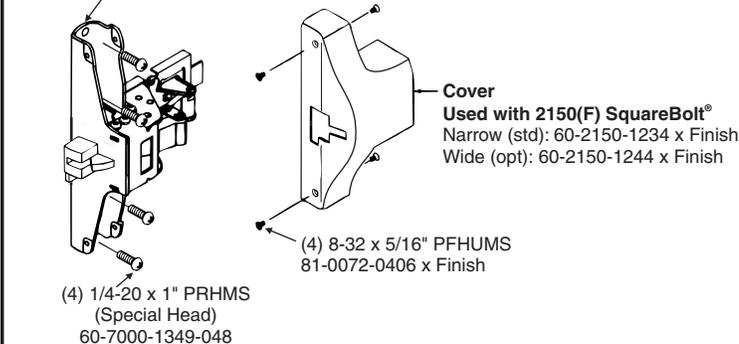


Bar Assembly (See Chart)

DEVICE	OPENING WIDTH	BAR ASSEMBLY	FINISH
2100, 2150, 1800	36" (0.91m)	60-2100-0014	Specify
2100, 2150, 1800 (Dogging)	42" (1.07m)	60-2100-0015	
	48" (1.22m)	60-2100-0088	
2100F, 2150F, 1800F (Non Dogging)	36" (0.91m)	60-2100-0008	Specify
	42" (1.07m)	60-2100-0009	
	48" (1.22m)	60-2100-0087	



**Latch Assembly**  
2150(F):  
60-2150-0010-048



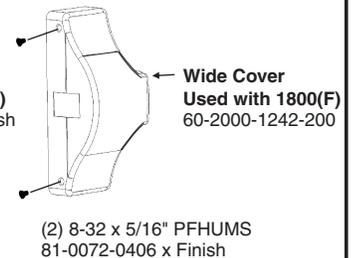
### Dogging

Feature to hold bolts retracted and touchpad depressed, for push-pull door operation.

**To Dog Device**

1. Insert dogging key.
2. Hold touchbar depressed.
3. Turn key 1/4 turn clockwise.

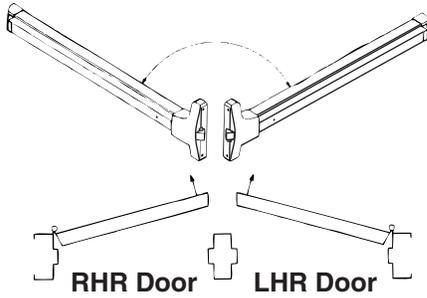
(Not a feature of fire labeled devices.)



All dimensions are in inches (mm) unless otherwise noted.



## For Doors of Either Hand



## Maintenance

1. Periodically remove covers and coat mechanisms with a silicone base lubricant. This is particularly required in corrosive environments for proper product function.
2. Check mounting fasteners periodically. Retighten if found loose. Apply screw locking compound (available at automotive part stores) or change part fasteners if screws continue to back up.
3. Periodic checks (and adjustments) of strikes are required to compensate for changes in the opening (e.g. door sagging).

## Check Before Starting

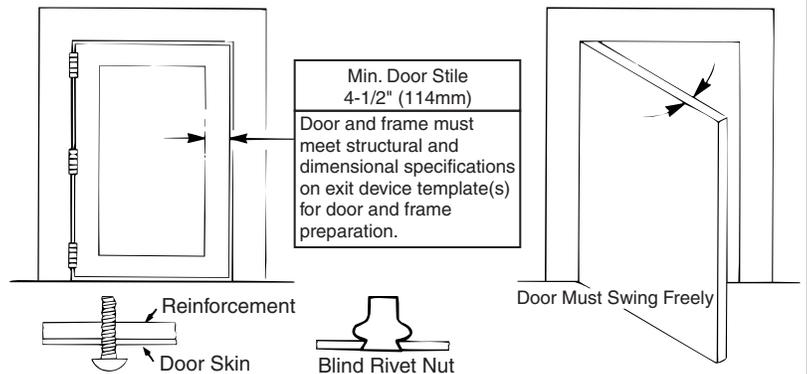
### Unreinforced Doors or Frames

Doors and Frames with walls having a structural thickness (metal skin plus reinforcement or solid hardwood) to engage less than (3) full screw threads are considered unreinforced.

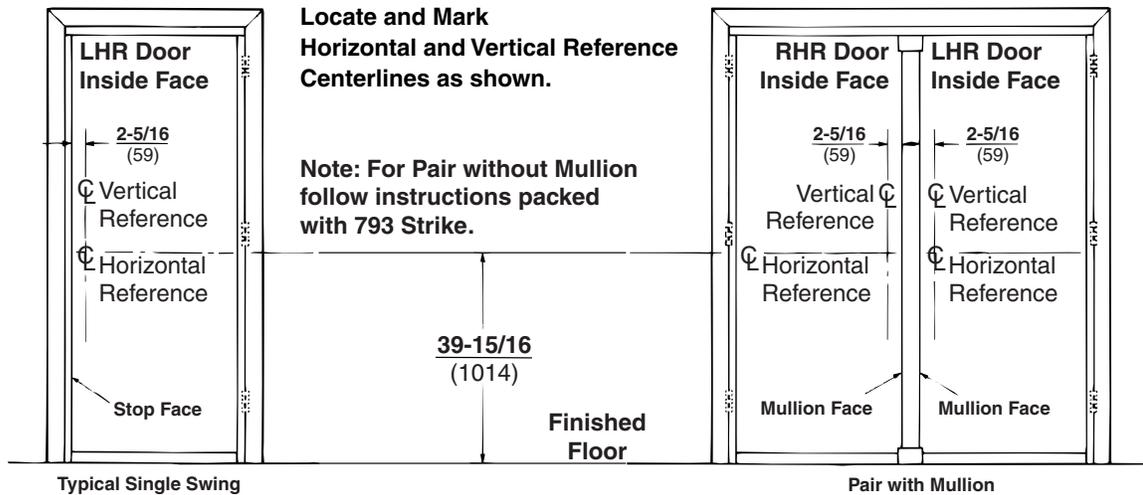
Unreinforced Doors: Use SNB (sex nuts and bolts).

Unreinforced Frames: Use Blind Rivet Nuts.

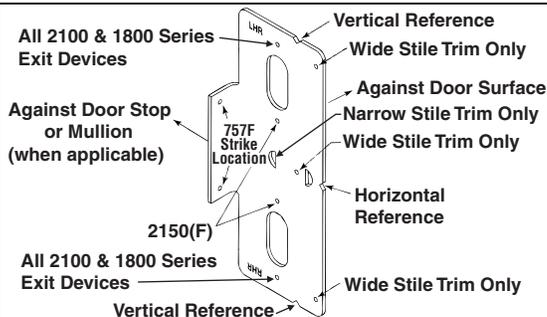
Recommended fasteners for unreinforced openings are not necessarily supplied by Yale Security, Inc.



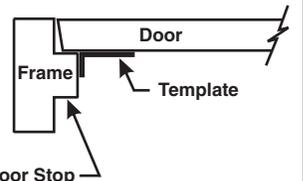
## 1. Mark Door



## 2. Prepare Door & Frame



- A. Seat plastic template on door and stop faces.
- B. Align horizontal and vertical centerlines.
- C. Locate and tape Trim Template on door. (See instructions packed with Trim).
- D. Spot and prepare holes.



**Device:** Each (2) 1/4-20 Machine Screws\* OR (2) 3/8" (10) Dia. Optional Sex Nuts & Bolts. (\*) *Metal reinforced door only.*

**Strike:** (2) 10-24 Machine Screws OR (2) #10 Wood Screws

### 3. Clear Raised Door Molding

Device (head bar and end cap) must seat flush on door surface or on shims that keep it parallel to door face.

(1) Shim Kit #223 needed to clear each 1/8" (3mm) of raised molding. Longer mounting screws needed when more than two (2) Shim Kits are used. See instructions provided with shim kits for installation.

### 4. Mount Components

**A.** Mount Trim (Follow instructions packed with trim).

**B.** Mount Latch Case:

- Use (2) 1/4-20 x 1" PRHMS or SNB for 2100(F), or 1800(F)
- Use (4) 1/4-20 x 1" PRHMS or SNB for 2150(F)

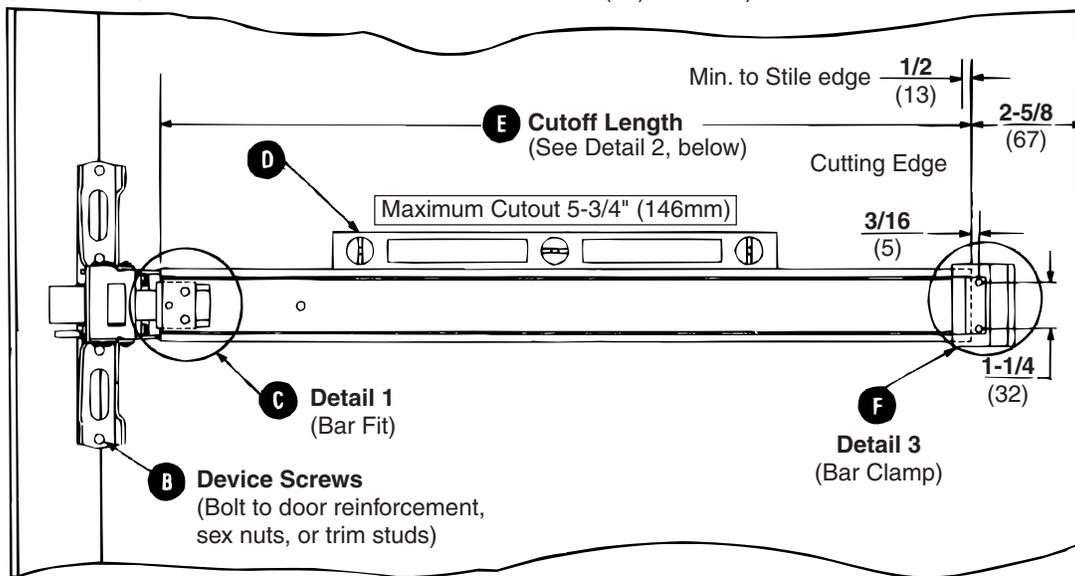
**C.** Open door. Slide Bar over door surface until touching Latch Case wall. Slider in Latch Case penetrates into Bar. (See Detail1).

**D.** Set Bar level.

**E.** Size Bar. To cut Bar, see Detail 2.

**F.** Reposition Bar (Detail 1). Clamp Bar with End Cap Bottom (Detail 3). Locate End Cap Bottom mounting holes.

**G.** Prepare End Cap Bottom mounting holes. Mount End Cap Bottom (Detail 3). (2 ea. 1/4-20 PRHMS or 3/8" (10) dia. SNB).



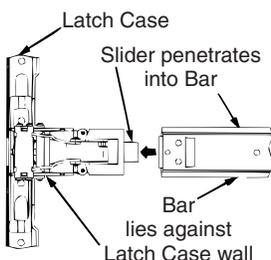
**H.** Check Bolt Retraction.

1. Depress bar (bolts must retract). Release bar (bolts must extend).
2. Actuate trim (bolts must retract). Release trim actuator (bolts must extend).
3. Depress touchbar, turn dogging key clockwise (bar must remain depressed, bolts must remain retracted). Turn dogging key counterclockwise (bar and bolts must return to extended position).

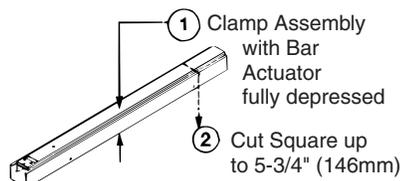
**I.** Tighten all mounting screws.

**Note:** When resulting operation is faulty, check first for visible binding or interference. If there is no apparent reason for the fault, remove item from the door and recheck its operation before assuming that it is defective.

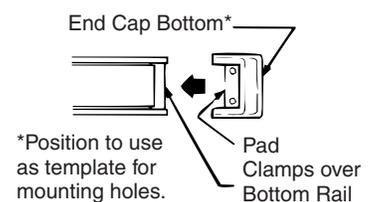
**Detail 1: Fit Bar**



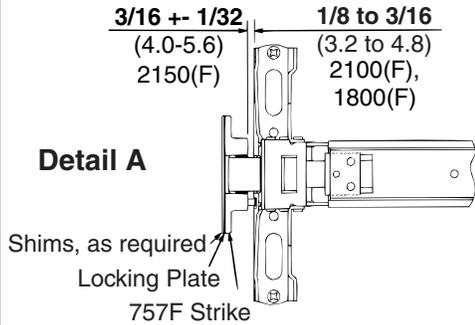
**Detail 2: To Cut Bar**



**Detail 3: Clamp Bar**

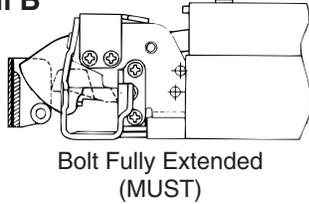


## 5. Install Strike

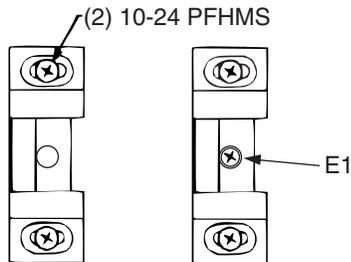
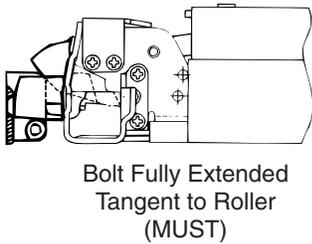


**Detail A**

**Detail B**



**Detail B1**



**Detail C**

**Detail E**

- A.** Position Strike Projection (Strike + Locking Plate + Shims, if needed). See Detail A.
- B.** Position Strike Depth
  - 2100(F), 1800(F), See Detail B.
  - 2150(F), see Detail B1
- C.** Fasten Strike Securely, as shown on Detail C.
- D.** Check Bolt Engagement.
  1. Bolt should retract to clear the strike, when actuated by bar, trim, or dogging action. Bolt should consistently reengage the strike, when actuators are released and the door shuts.
  2. Door should remain latched and not rattle when pushed, pulled, or shaken in/out.

- E.** (Required for Fire Devices only, optional for Panic)

Lock strike in place. See Detail E.

1. Prepare for and install strike center screw (1 #10-24 PFHMS). See E1.

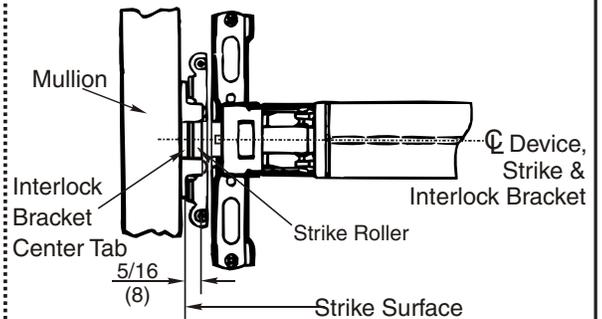
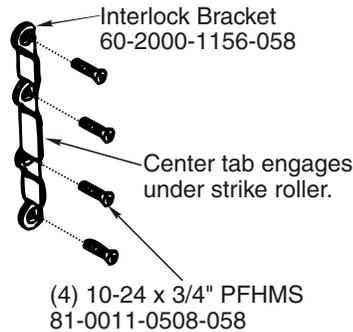
- F.** (Fire Mullion Installations Only) Stabilize strike. See Detail F.

1. Position strike interlock bracket in place as shown. Locate bracket holes.
2. Prepare interlock bracket mounting holes. Mount interlock bracket (4 #10-24 PFHMS or SNB).

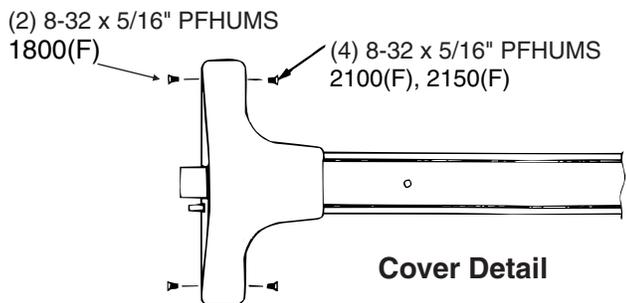
NOTE: Interlock bracket and screws supplied with Fire Mullion.

**Detail F**

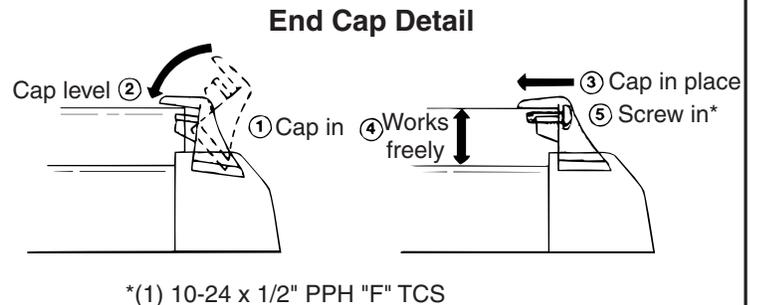
**Interlock Bracket  
Required for Fire Rated  
Rim Exit Device with Mullion.**



## 6. Install Head Cover & End Cap Top



**Cover Detail**



### Yale Locks & Hardware

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