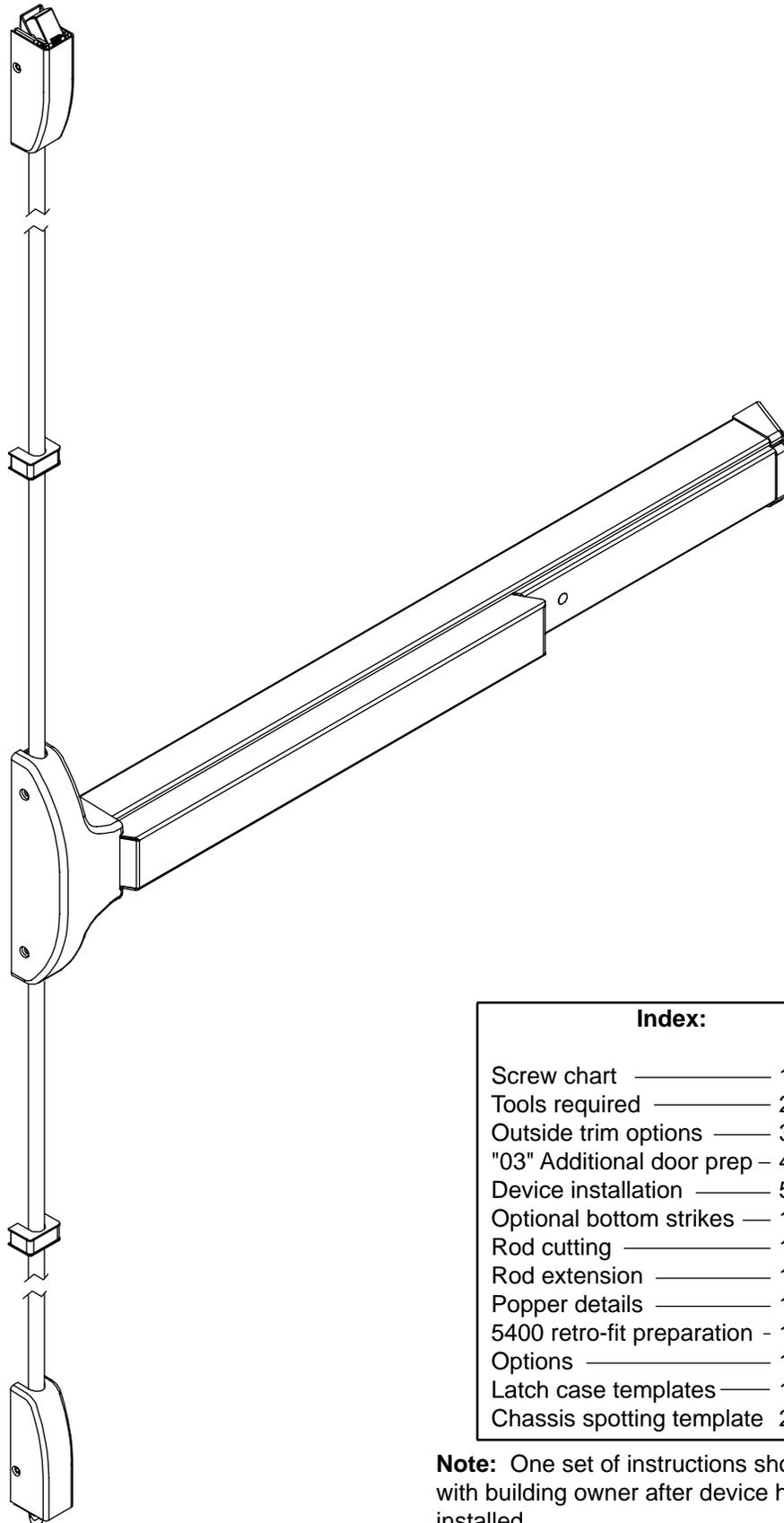




9800/F9800 SERIES SURFACE VERTICAL ROD EXIT DEVICE

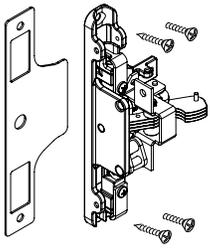


Index:

Screw chart	—————	1
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Note: One set of instructions should be left with building owner after device has been installed.

SCREW CHART



(2) 12-24 x 1 1/2" F.H.P.M.S. (Metal or Thru Bolts) _____ Chassis Mounting



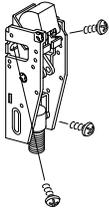
(2) #12 x 1 1/4" F.H.P.T.S. (Wood Door) _____ Chassis Mounting



(2) 12-24 x 1" R.H.P.M.S. (Metal or Thru Bolts) _____ End Cap Bracket



(2) #12 x 1 1/4" R.H.P.T.S. (Wood Door) _____ End Cap Bracket



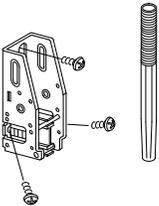
(1) 12-24 x 3/4" F.H.P.M.S. (Metal or Thru Bolts) _____ Latch To Door



(2) 12-24 x 1/2" R.H.P.M.S. (Metal or Thru Bolts) _____ Latch To Door



(3) #12 x 1" R.H.P.T.S. (Wood Door) _____ Latch To Door



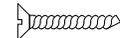
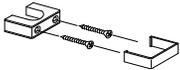
(1) 12-24 x 3/4" F.H.P.M.S. (Metal or Thru Bolts) _____ Latch To Door



(2) 12-24 x 1/2" R.H.P.M.S. (Metal or Thru Bolts) _____ Latch To Door



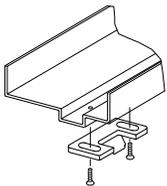
(3) #12 x 1" R.H.P.T.S. (Wood Door) _____ Latch To Door



(4) #8 x 1 1/2" F.H.P.T.S. _____ Rod Guide Mounting



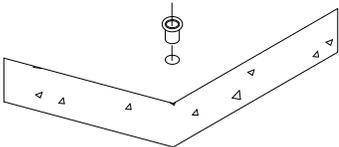
(2) 8-32 x 1/2" R.H.P.M.S. _____ Rod Retaining Clip Mount



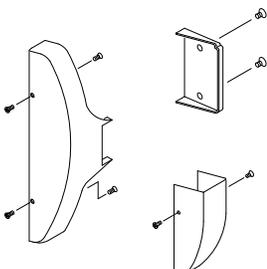
(2) 12-24 x 3/4" O.H.P.M.S. (Metal) _____ #426 Strike Pack



(2) #12 x 1" F.H.P.T.S. (Wood) _____ #426 Strike Pack

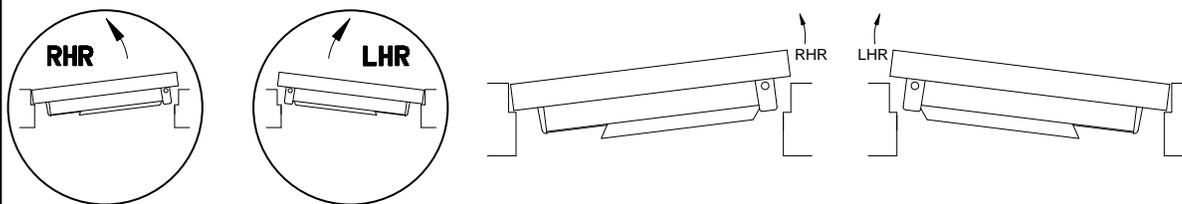


_____ #439 Bottom Strike
(Cement or Grout In Place)



(10) 8-32 x 1/4" F.H.P.M.S. _____ Chassis Cover,
End Cap & Latch
Covers

HANDING OF DOOR



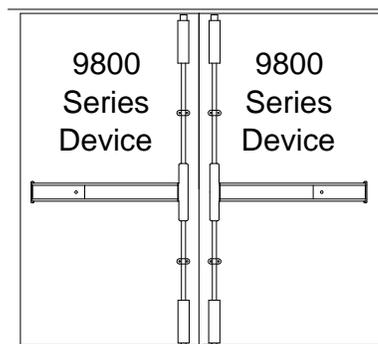
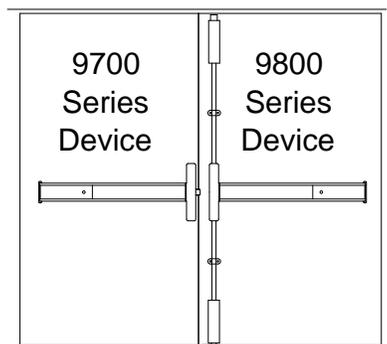
Read the entire instruction sheet prior to installation.
Before Installing Hardware:

1. Verify door width, handing and product with carton label for correct exit device and length. (See Step 6)
2. For hand reversal of chassis see page 6, for outside lever trim see page (3).
3. For less bottom rod device, delete bottom latch installation steps.

Note: Less bottom rod device is not recommended where security is a primary concern.

Note: If device is to be installed over glass lite panels, shim kit may be required, order GK9200.

TYPICAL APPLICATIONS



SPECIAL TOOLS FOR INSTALLATION

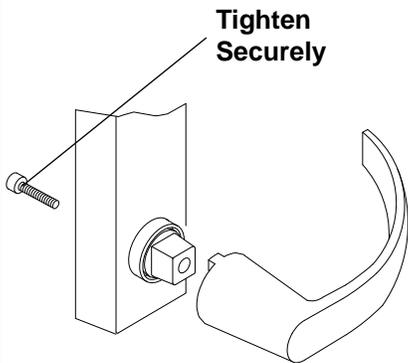
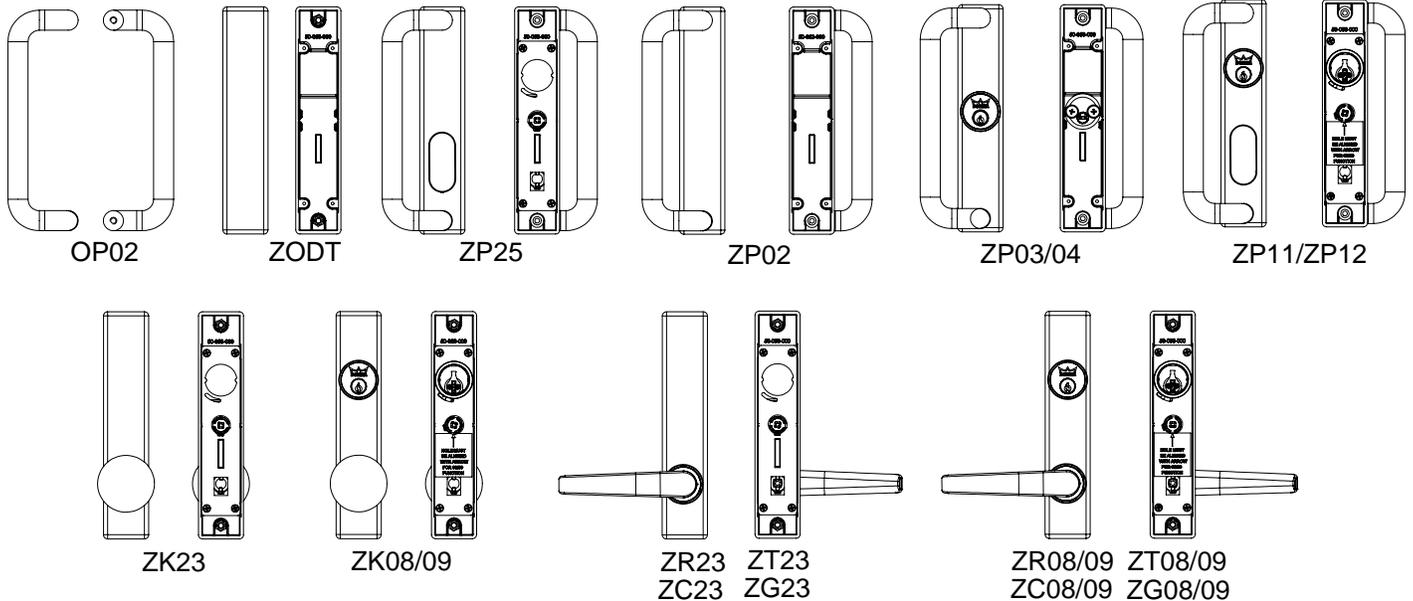
12-24 Tap, 10-32 Tap
Drill bits: 1/8", 3/8", #25, #16, #21
Hole saw 1 1/4" diameter for trim (if required) or jig saw.
5/32" Allen wrench for lever trim.

TYPICAL OUTSIDE TRIM INSTRUCTIONS

Note: When used with narrow stiles, consult door manufacturer for compatibility.



LHRB TRIM SHOWN RHRB OPPOSITE

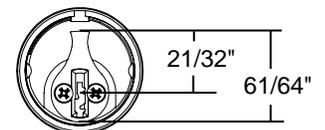


All trims are free wheeling.
(Handle will rotate when locked.)

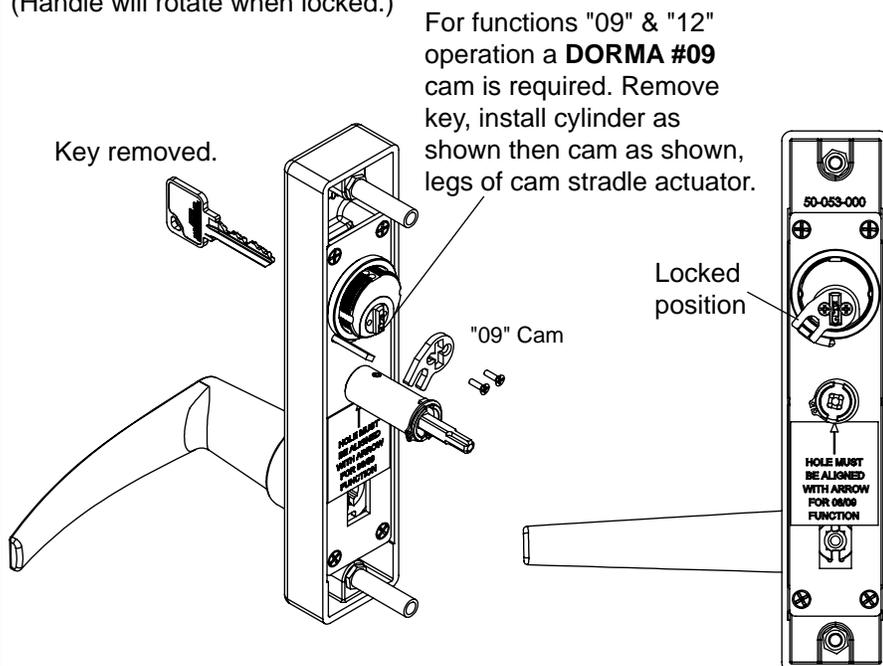
IMPORTANT

Note: All lever handles except for "clutch" are shipped unattached. To install; **Place handle in desired position and attach with allen screw located in back of trim plate. 5/32"** Allen wrench required.
To change hand on "clutch" trim rotate and "break" lever around to desired hand.

Conventional 1 1/8" rim cylinder #80R20SC with tail piece, keyed differently to a random combination supplied with functions "03" & "04" trim unless otherwise noted.



Conventional 1 1/8" mortise cylinder #90X13SC118 supplied with DORMA #13 cam, keyed differently to a random combination supplied with functions "08" & "11" trim unless otherwise noted.



ADDITIONAL DOOR PREP REQUIREMENTS

9800/F9800

Surface Vertical Rod Exit Device

RHR Shown

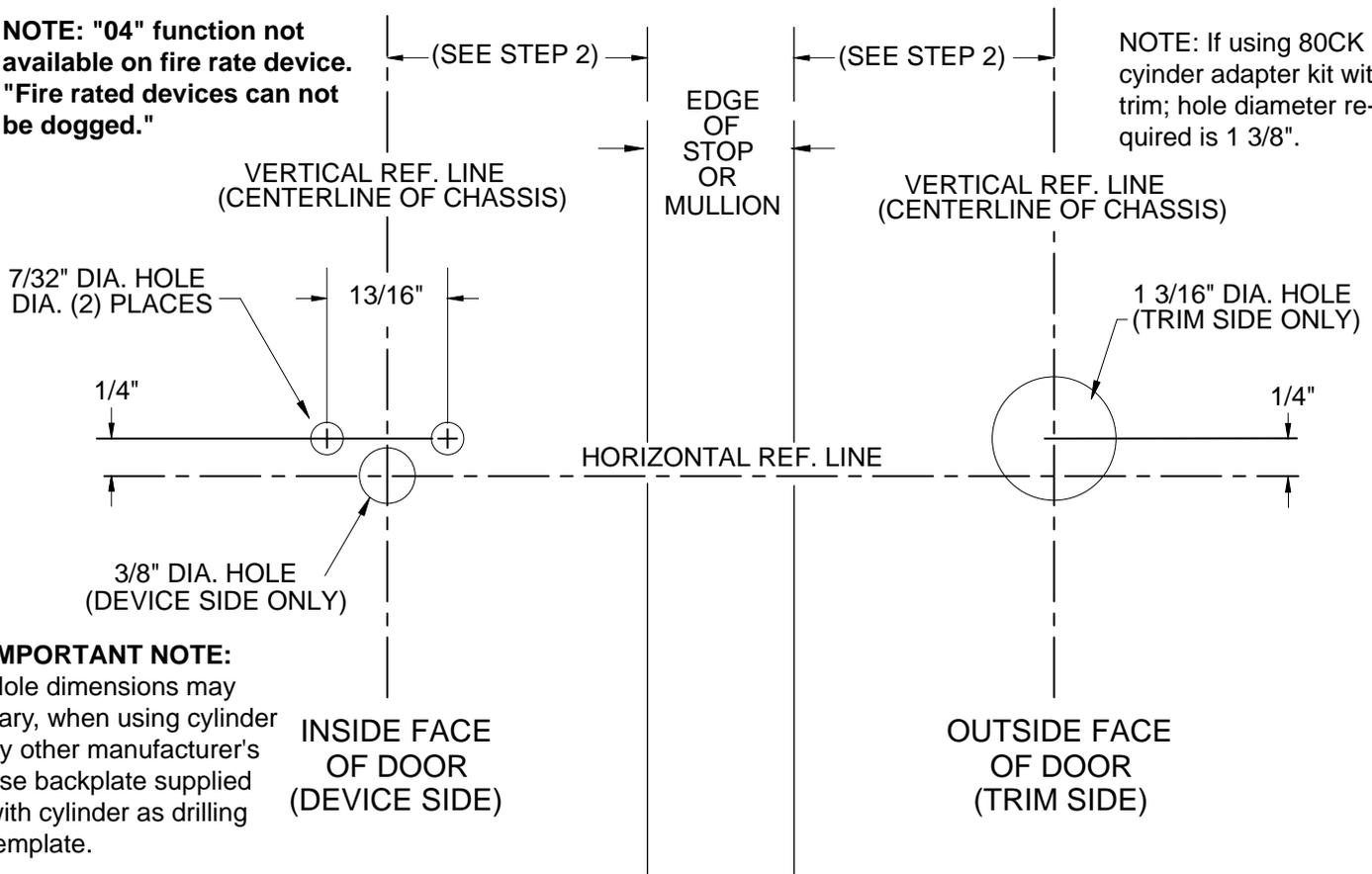
LHR Opposite

Required for "03" & "04" function on device
with cylinder only and no trim.

(NOT TO SCALE)

NOTE: "04" function not available on fire rate device. "Fire rated devices can not be dogged."

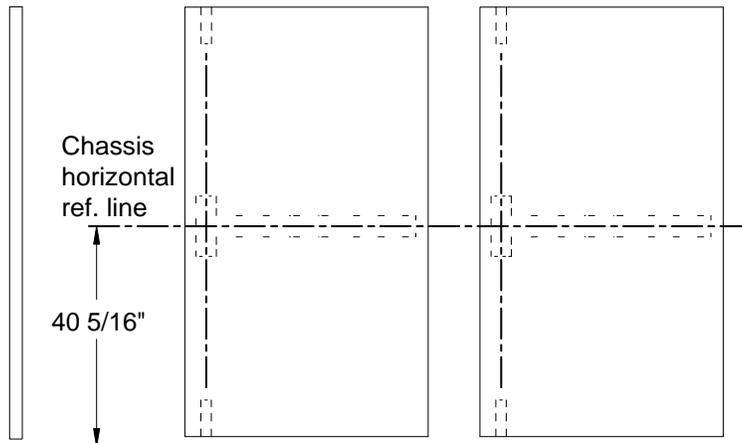
NOTE: If using 80CK cylinder adapter kit with trim; hole diameter required is 1 3/8".



1 With door lying on saw horses, open box, layout all parts and verify prior to starting installation. See page (1) one for parts.

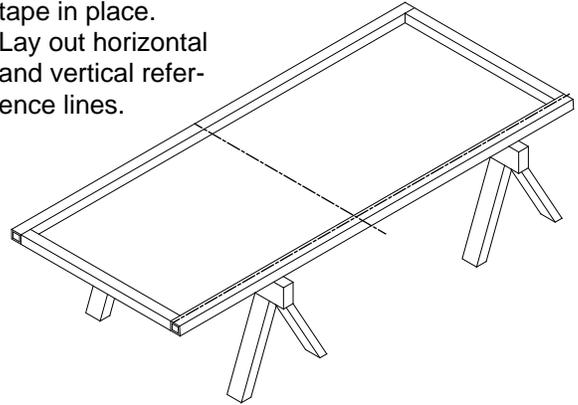
Note: If this is a retro-fit from current 5400 see page 15 prior to proceeding.

2 Door preparation

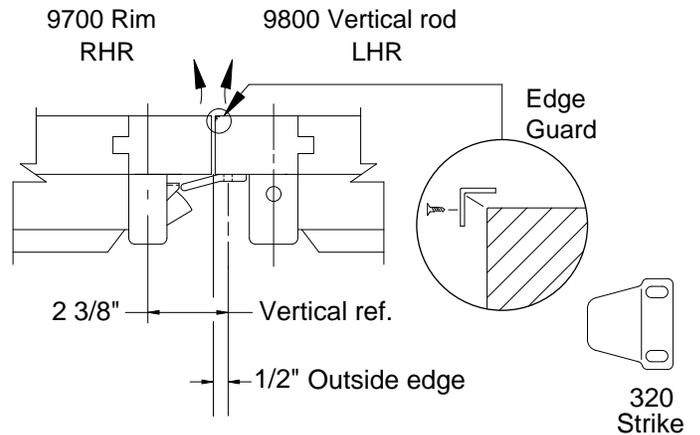
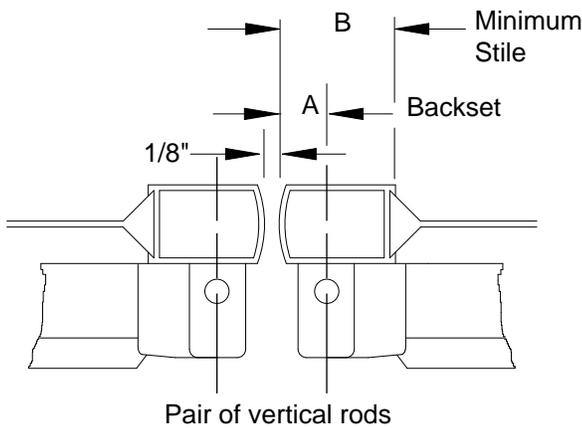
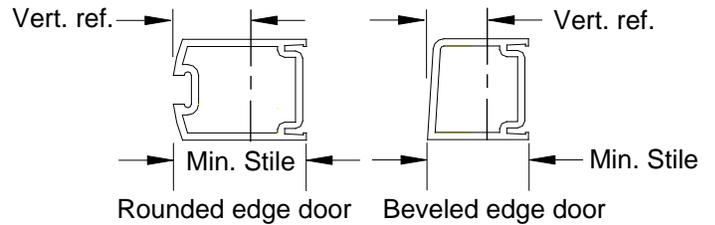


Finished floor, if using threshold measure from top of threshold.

Chassis template located at rear of booklet. Cut and tape in place. Lay out horizontal and vertical reference lines.



Backset or vertical reference is measured from outer edge of door as shown. Minimum stile is less glass stop.



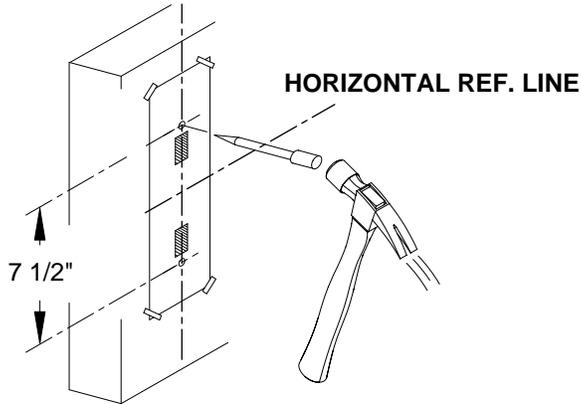
Type of installation	Minimum vertical ref. of chassis	Minimum Stile	
		Pull only	"Z" trim
Single door 1/2" blade stop	1 3/8"	2 "	2 3/16"
Pairs and double egress	1 1/4"	1 5/8"	2 1/8"
Paired with 9700 rim	1 5/8"	2 3/16"	2 1/2"

3 Hang door(s) in opening, ensure they are square and plumb.

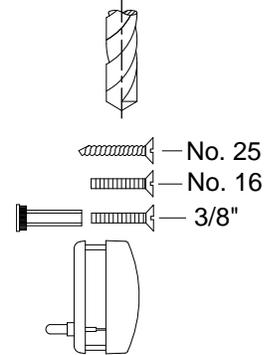
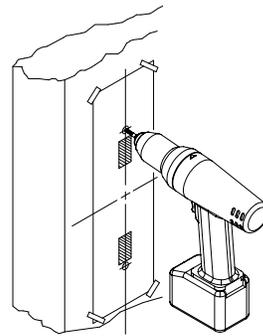
4 If not done layout device on door using drilling template T9800 located at rear of booklet.
For additional templates contact DORMA at 1-800-523-8483 or www.dorma-usa.com

Refer to carton label for model and trim number prior to drilling.
Prepare mounting holes and cut-outs per template.

VERTICAL REF. LINE
(See Backsets on page 5.)

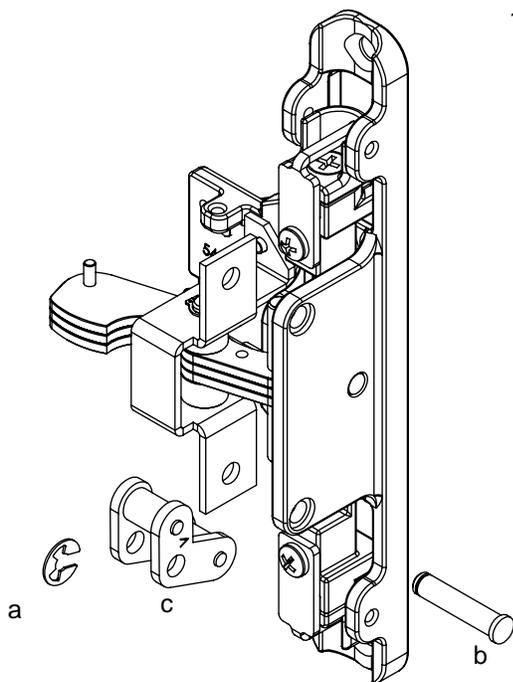


Verify all holes
prior to drilling.



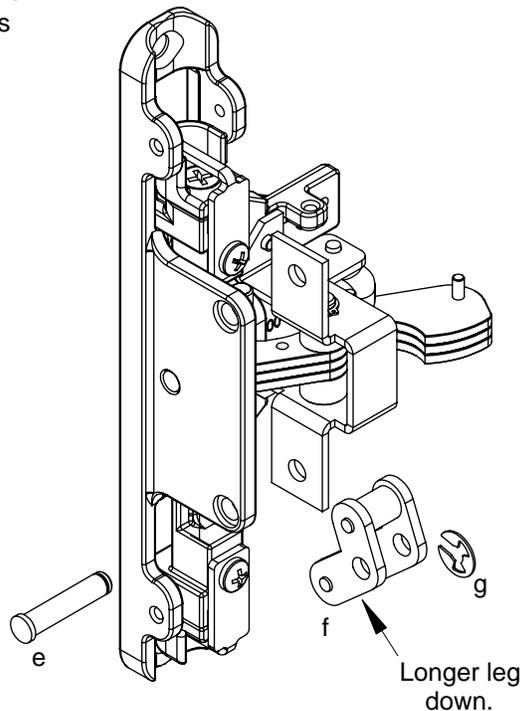
5 Hand reversal of chassis (if required). Follow steps in alphabetical sequence.

DISASSEMBLE
RHR
(Right Hand Reverse)



Rotate chassis
180 Degrees
d

REASSEMBLE
LHR
(Left Hand Reverse)



6 Prepare to install touch bar and rail on door.

NOTE: All dimensions are based on 1/2" stop height; Verify strikes, stile width, any trim and stop height prior to making any cuts. If cutting is required follow instructions below.

Size AA:

Fits 48" door opening without cutting.
Can be cut to fit a 32 1/2" minimum door opening.

Size BB:

Fits 36" door opening without cutting.
Can be cut to fit a 26 1/2" minimum door opening.

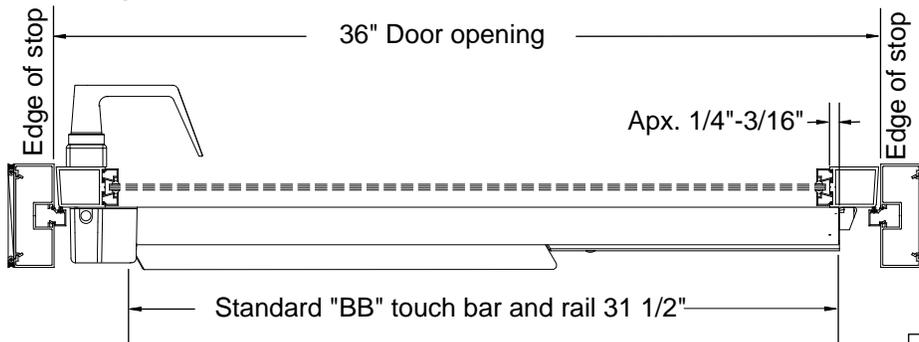
Size CC:

Fits 36" door opening with out cutting.
Using a shorter touch pad then the standard "BB" size allows it to be cut to 23 1/2" door opening.

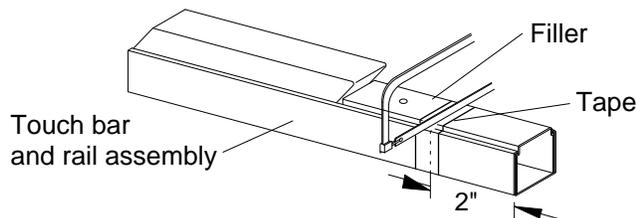
Note: Models with prefix options such as "ES", "DE" etc. may not be cut down to minimums shown to left. Consult factory or catalog for details.

Verify device length with box label; "AA", "BB" or "CC", ie. 9800BB

Example:



Note: If door opening width is less then standard touch bar will have to be cut down. ie: door opening width 34" subtract 2" from rear of touch bar and rail, tape and cut to length as shown.



IMPORTANT

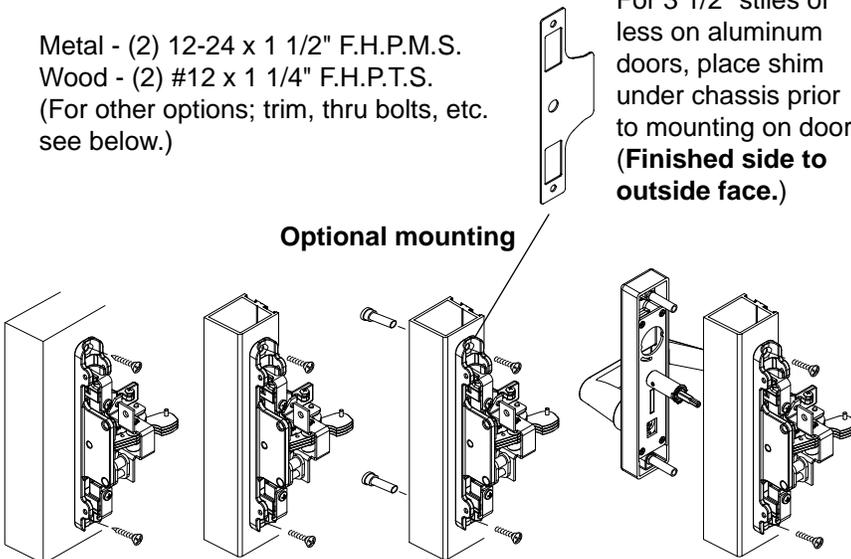
Use caution when cutting touchbar and rail to size on models with "ES", "MS", "LM" or "DWA" prefix options. These units contain internal wiring. For models with prefix options "BPA", BPAR" or "DE" remove filler containing electronics before cutting.

7 Secure chassis to door as shown.

Metal - (2) 12-24 x 1 1/2" F.H.P.M.S.
Wood - (2) #12 x 1 1/4" F.H.P.T.S.
(For other options; trim, thru bolts, etc. see below.)

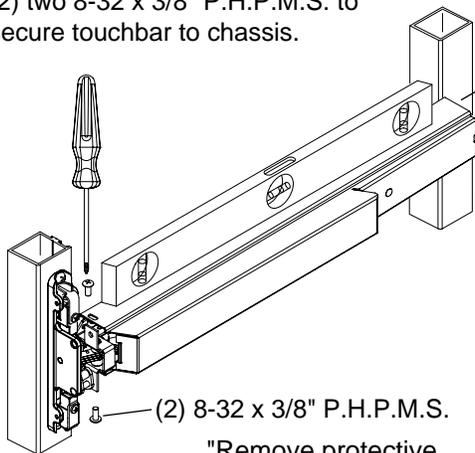
For 3 1/2" stiles or less on aluminum doors, place shim under chassis prior to mounting on door. (Finished side to outside face.)

Optional mounting



8 Install touch bar and rail assembly and end cap to door.

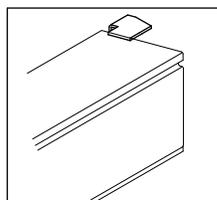
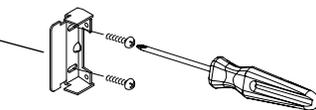
Remove two 8-32 screws from chassis, slide touch bar and rail assembly under rear of chassis. **Note: If device has prefix "ES" ensure that pins in lever bolt align with slots in actuator located inside nose of touch bar.** See instruction sheet IES-7 packed with device. Install (2) two 8-32 x 3/8" P.H.P.M.S. to secure touchbar to chassis.



(2) 8-32 x 3/8" P.H.P.M.S.

"Remove protective covering from the touchbar and rail assembly prior to installing on door."

Hold rear mounting bracket tightly against door and rear of rail. Mark (2) two holes and drill per chart. Secure with proper fasteners.



Bracket should be flush against door and tight against rear of rail.

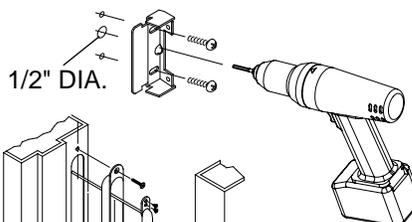
NOTE: If carton label list prefix; "ES", "MS", "LM", "BPA", "BPAR", "DWA", "LM/MS/BP" or "CD" prefix see Options pages at rear.



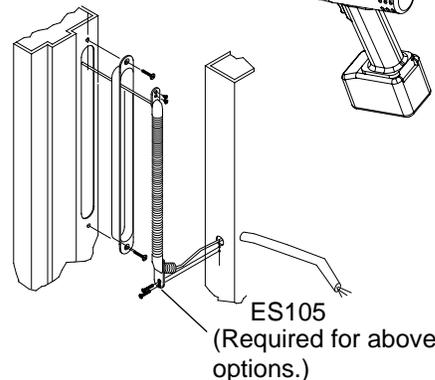
- 1/8" Drill 1" Deep (Wood)
- No. 16 Drill - 12-24 Tap (Metal)
- 3/8" Dia. (Thru bolts)

Metal/thru-bolts - (2) 12-24 x 1" F.H.P.M.S.
Wood - (2) #12 x 1 1/4" F.H.P.T.S.

For the following models prefixes: "ES", "MS", "LM" or "DWA" drill an additional 1/2" diameter hole as shown. See options pages at rear for additional information.

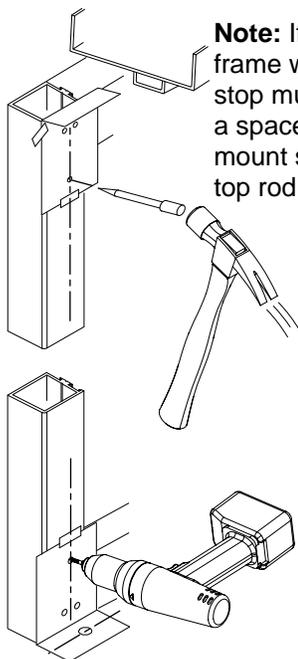


1/2" DIA.



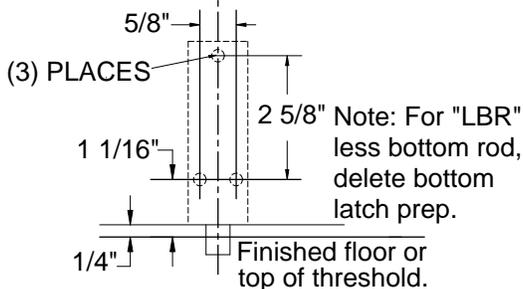
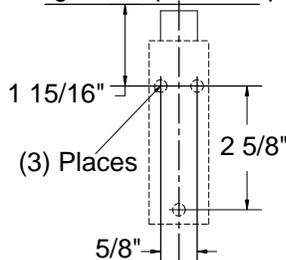
ES105
(Required for above options.)

9 Prop door open and layout and prep top and bottom latch case locations. Templates located at rear of booklet, tear out, cut and tape to door as shown, mark and drill per chart.



Note: If installing on frame with blade stop; stop must be cut and a spacer added to mount strike or a longer top rod will be required.

Standard top and bottom latch preps.
Edge of stop



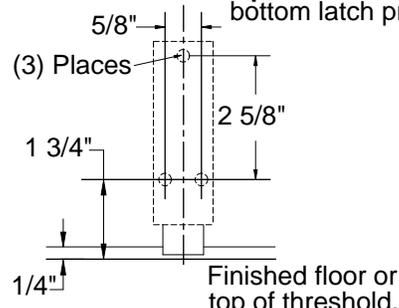
Note: For "LBR" less bottom latch prep.



- 1/8" Drill 1" Deep (Wood)
- No. 16 Drill - 12-24 Tap (Metal)
- 3/8" Dia. (Thru bolts)

Metal/thru-bolts - (2) 12-24 x 1" F.H.P.M.S.
Wood - (2) #12 x 1 1/4" F.H.P.T.S.

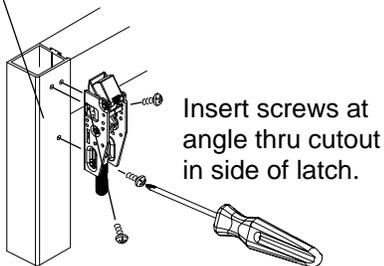
Optional: Pullman bottom latch prep.



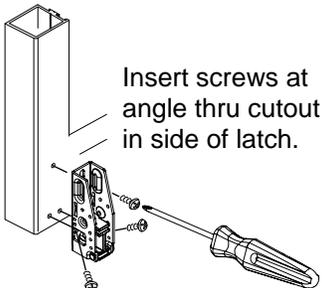
10 Install top and bottom latch case assemblies.

Inter-locking strike angle for fire rated doors over 8' and all fire rated LBR (less bottom rod) devices.

Mount behind latch assembly.



Insert screws at angle thru cutout in side of latch.



Insert screws at angle thru cutout in side of latch.

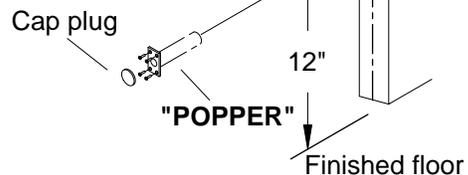
— No. 12 x 1" R.H.P.T.S. (Wood)

— 12-24 x 1/2" R.H.P.M.S. (Metal)

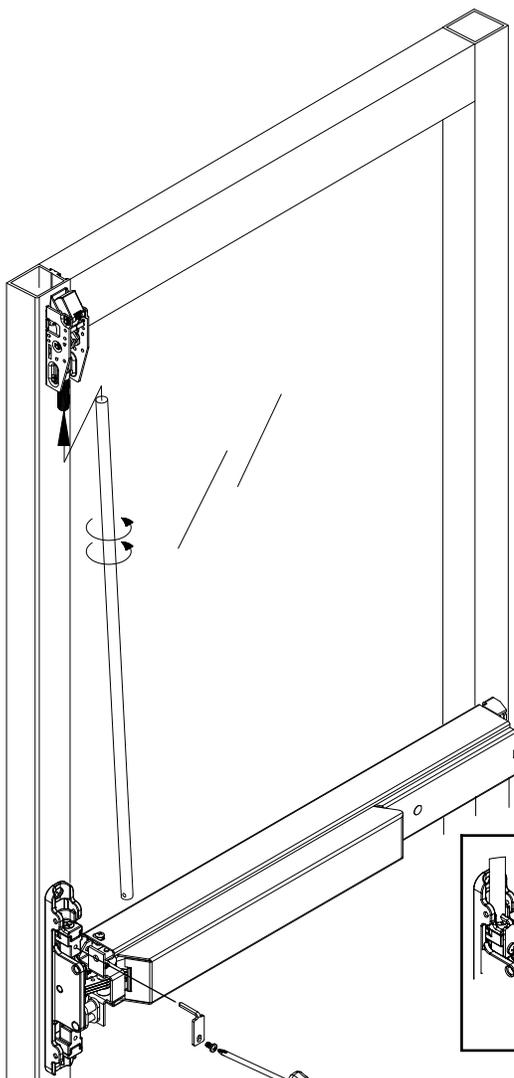
— 12-24 x 1 1/4" R.H.P. M.S. (Thru bolts)

Required for; "LBR" (less bottom rod) fire rated exit devices.

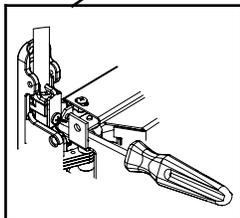
See additional instructions packaged with "Popper" for details.



11 Install top rod and adjust top latch.



Remove 8/32 x 1/2" phillips head screw from retaining plate as shown.

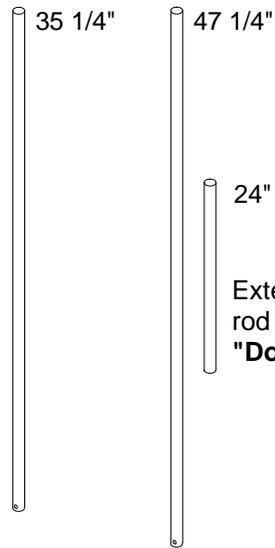


Rods shipped cut to length for 7' door opening. Optional 8' door opening available, (must be requested at time of ordering). For doors over 8' and up to 10' request "ETR" package at time of ordering. For top rod length other than "standard" see chart below. Order 8' option and cut to length.

Depress tripping lever and ensure that top latch is fully extended and in dead locked position. **Bolt should not be able to be depressed.** Bellcrank of chassis should be completely down in home position.

Thread top rod onto adjusting bolt until hole in bottom of rod aligns with hole in rear of top portion of bellcrank. **Insert leg of retaining plate through hole in rod and hole in bellcrank, install 8-32 x 1/2" screw and tighten securely.**

7' Standard Top Rod 8' Optional Top Rod



"ETR" Extended top rod extension. "Do not cut."

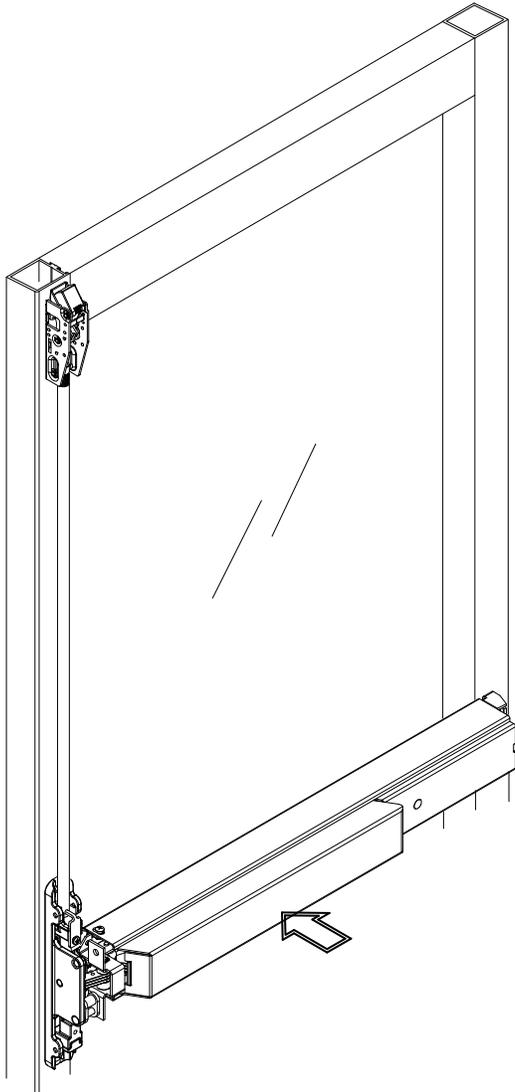
NOTE: If horizontal reference line is moved from the recommended mounting height, new rods may have to be ordered.

If cutting is required "Do Not Cut Threaded End". (See Chart)

Use supplied drill jig and 1/8" drill bit if new hole is required.

DOOR HEIGHT	TOP ROD LENGTH
6'8"	31 1/4"
6'10"	33 1/4"
7'0"	35 1/4"
7'2"	37 1/4"
7'4"	39 1/4"
7'6"	41 1/4"
7'8"	43 1/4"
7'10"	45 1/4"
8'0"	47 1/4"

12 Check for proper function of device and top latch assembly.

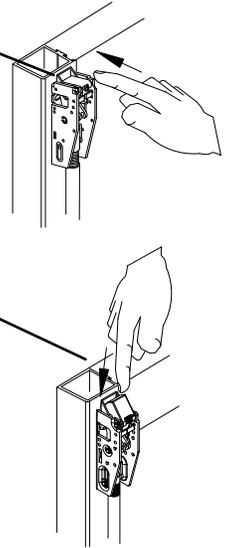


Depress touch bar slowly, top latch bolt should retract fully. Hold bar depressed, push in and hold top tripping lever. Latch bolt should be flush or slightly depress in top latch case.

If this is found, release touch bar and tripping lever top latch bolt should remain captured by tripping lever.

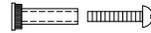
Push in on tripping lever and release top latch bolt, bellcrank should drop completely down and top latch should be fully extended and dead locked. **(You should not be able to push the bolt in.)**

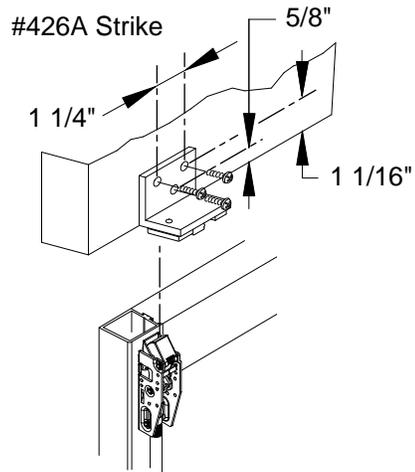
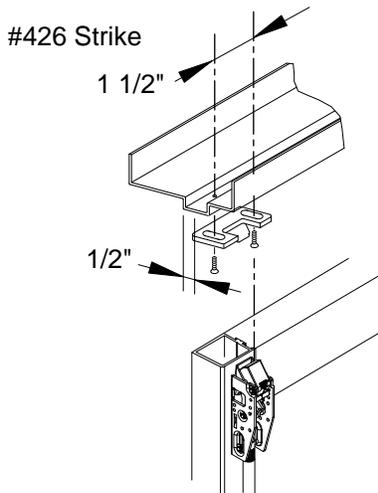
If top bolt does not retract fully or can be pushed in, adjustment of top rod is required: Remove 8-32 screw and retaining plate; rotate rod left (clock-wise) to lengthen, half turns at a time. Re-install retaining plate and screw; check for dead lock after each turn.



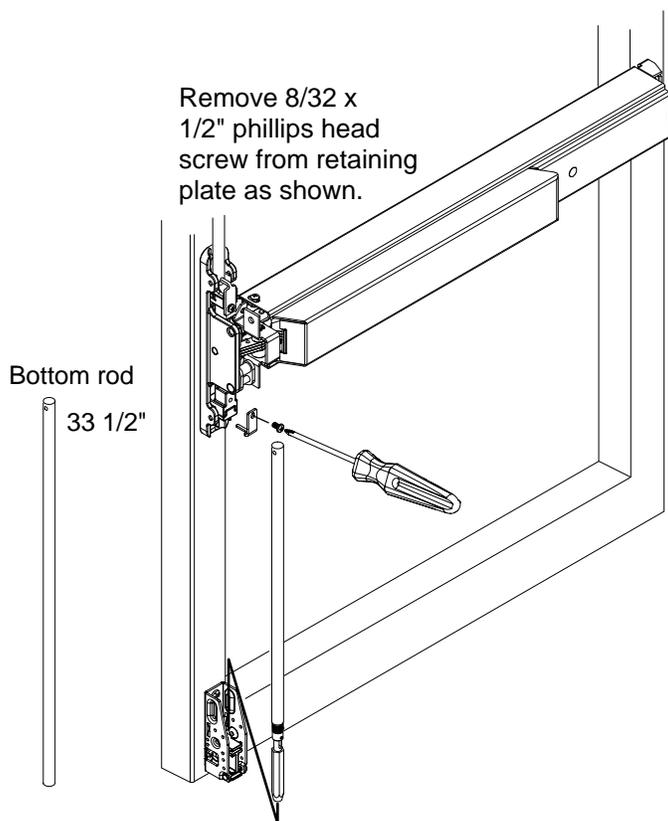
13 Install top strike. See spotting templates located in rear of booklet if not already done. Check for proper alignment and operation with top latch after installation.

-  #10 x 1" F.H.P.T.S. (Wood)
-  12-24 x 3/4" O.H.P.M.S. (Metal)

-  #10 x 1" R.H.P.T.S. (Wood)
-  12-24 x 1" R.H.P.M.S. (Metal)
-  12-24 x 1" R.H.P.M.S. (Thrubolts)



14 Installation of bottom slide bolt or latch assembly.



NOTE:

If horizontal reference line is moved from the recommended mounting height, new rods may have to be ordered.

If cutting is required "Do Not Cut Threaded End".

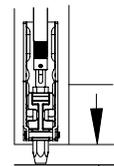
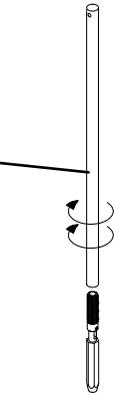
Use supplied drill jig and 1/8" drill bit if new hole is required.

Thread bottom rod approximately 1/2 way on to slide bolt assembly.

With bell crank down and top latch fully extended and dead locked.

Insert rod and slide bolt assembly in to bottom latch bracket as shown, rotate rod until hole in rod aligns with hole in bell crank. Insert retaining clip and secure with 8-32 x 1/2" screw.

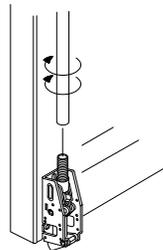
Check to see that there is approximately 5/8" of bolt hanging down and that bolt moves up and down freely in latch case.



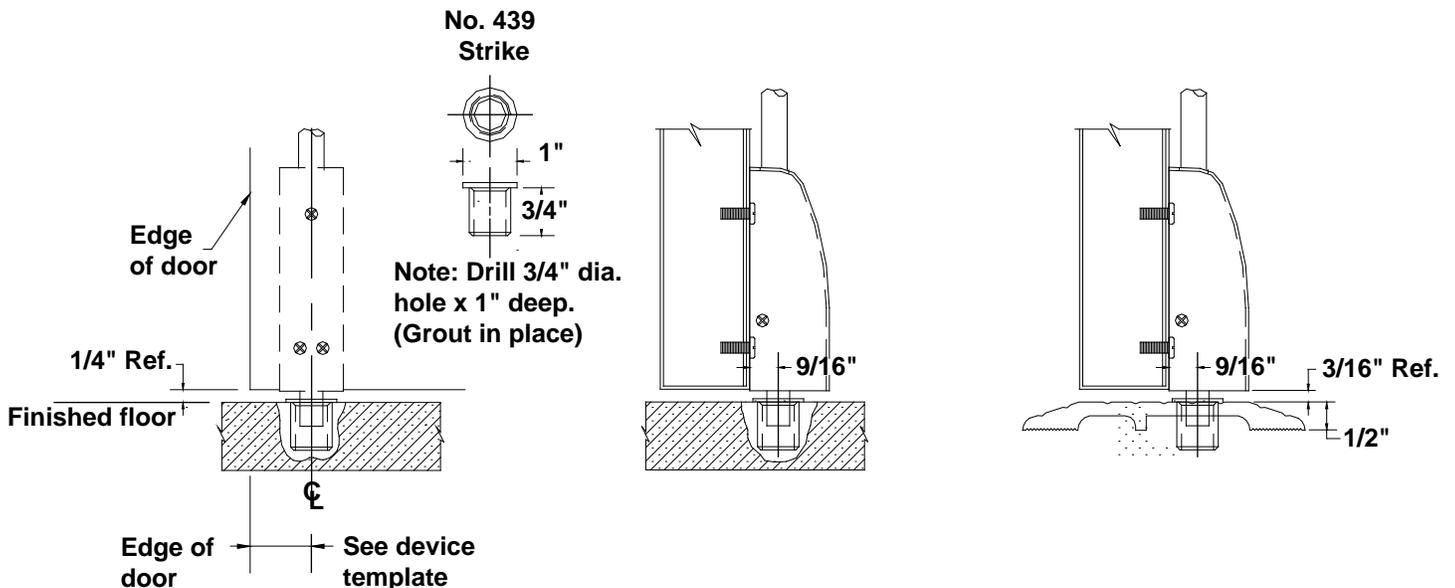
Aprox. 5/8"

With bell crank down and top latch fully extended and dead locked.

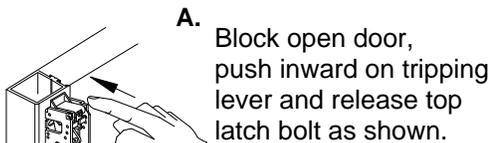
For optional pullman latch: Thread rod approximately 1/2 way on to adjusting bolt, tilt rod upward, rotate rod clock-wise to shorten, counter clock-wise lengthen until hole in rod aligns with hole in bell crank. Bolt should be dead locked when down just as top bolt. Adjust rod until dead lock is achieved.



15 Installation of standard bottom strike. For additional strike installations see templates in rear of booklet.

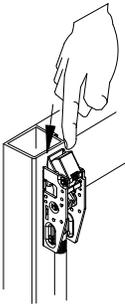
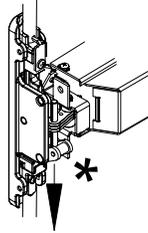


16 Verification of rod adjustments.



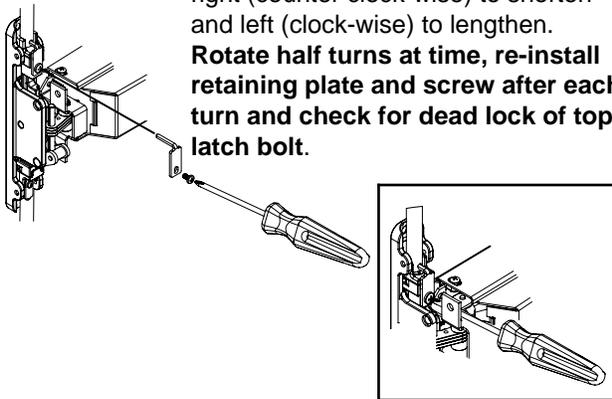
- A.** Block open door, push inward on tripping lever and release top latch bolt as shown.

Top latch should be fully extend and dead latched as shown and bell crank should drop completely down.

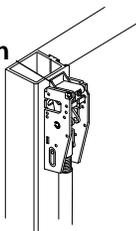


- B.** Check for dead lock by attempting to push downward on top latch bolt (**it should not push in**). "Only" if it can be pushed in adjust rods per step below.

- C. To adjust:** Remove 8-32 screw, remove retaining plate, rotate top rod right (counter clock-wise) to shorten and left (clock-wise) to lengthen. **Rotate half turns at time, re-install retaining plate and screw after each turn and check for dead lock of top latch bolt.**



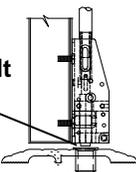
Flush



- D.** Depress and hold touch bar. **Push in on tripping lever and hold depressed**, check position of top latch bolt. It should be flush to slightly depressed in top latch bracket.

- E.** Release tripping lever and touch bar, top latch should remain in retracted position

Slide bolt clears strike



- F.** With top latch held retracted by tripping lever, check bottom slide bolt to ensure it clears the strike, threshold, and floor by unblocking and swinging door.

If adjustment is required; follow same steps as in step C above for top rod until proper clearance is achieved.

- G.** Close door and check that top and bottom latch bolts align and engage in top and bottom strikes.

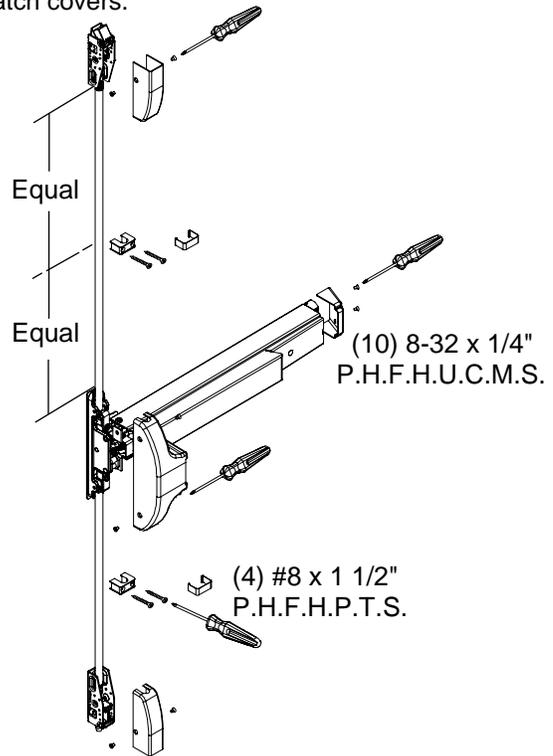
- H.** After rods are fully adjusted ensure that top and bottom rod retaining plate screws are tight.

- I.** Check device operation by opening and closing door several times from **inside**. Check and operate outside trim if installed.

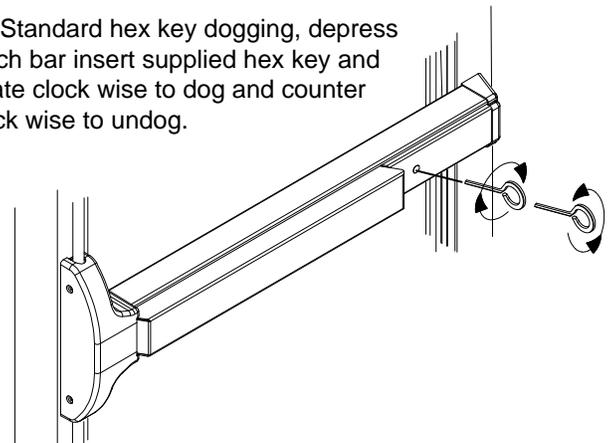
Repeat rod adjustment procedure if:

Top latch is not held retracted
Bottom slide bolt does not clear strike or floor.
Latches do not work properly with outside trim

- J.** Install rod guides, end cap, center case and latch covers.

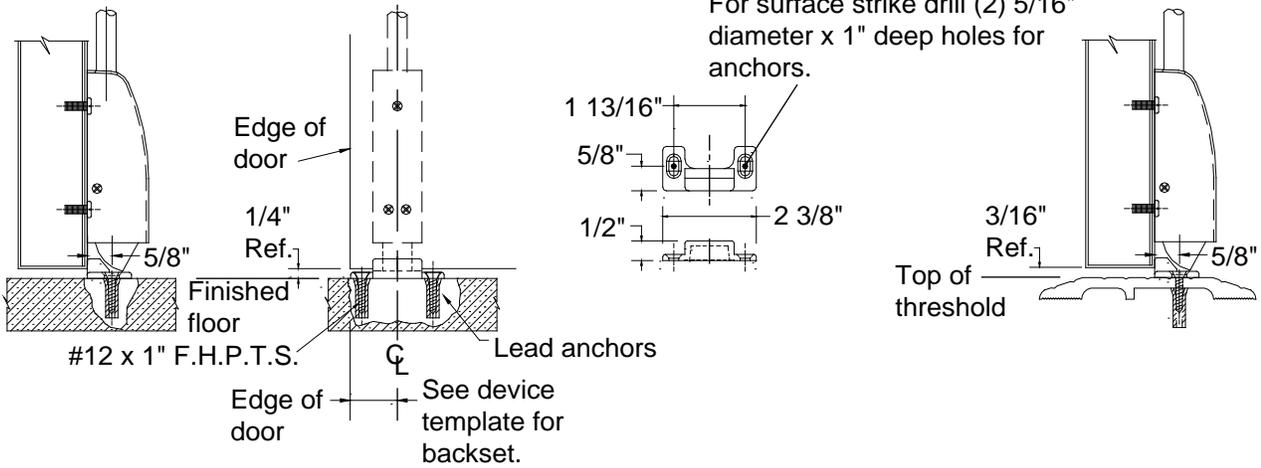


- K.** Standard hex key dogging, depress touch bar insert supplied hex key and rotate clock wise to dog and counter clock wise to undog.

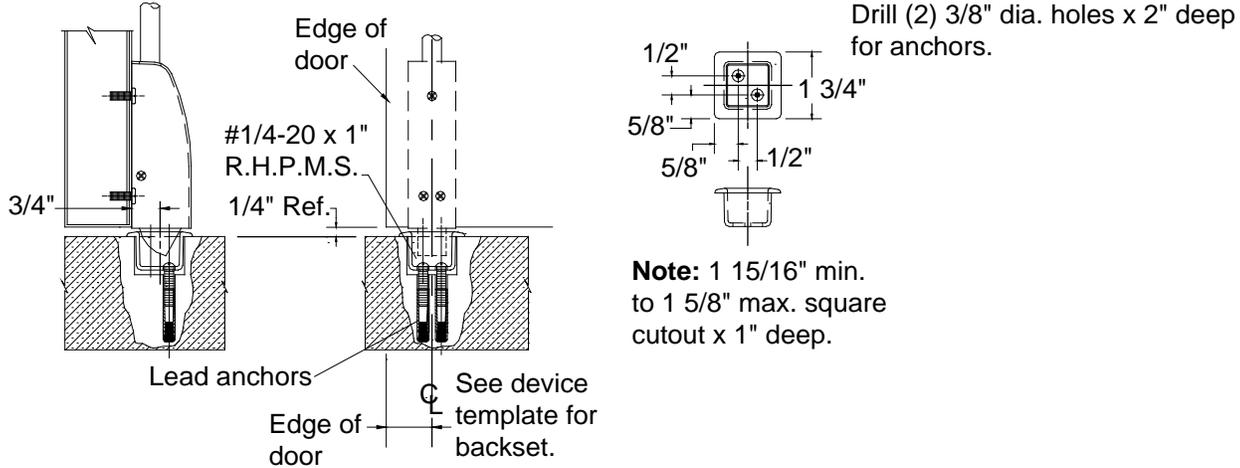


OPTIONAL: BOTTOM STRIKE PREPARATION

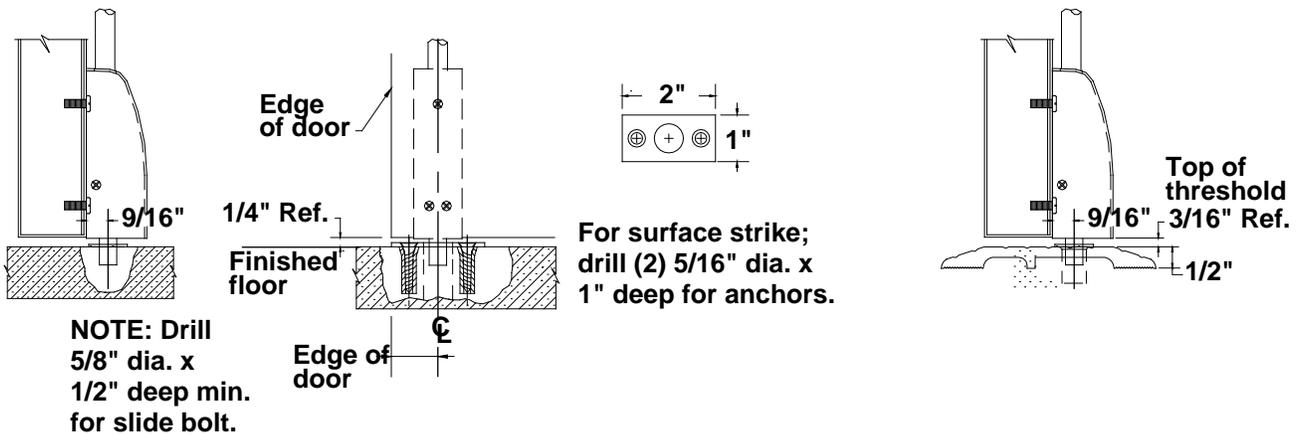
#416 Strike



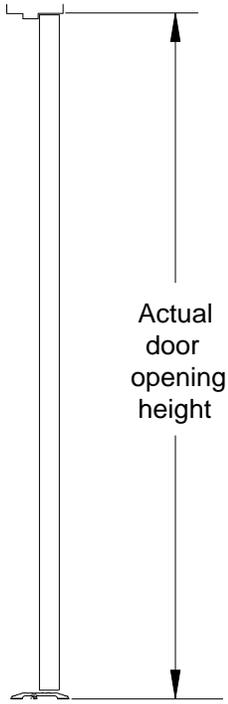
#431 Strike



340 Strike



ROD CUTTING



NOTE: Rods shipped standard from factory for 7' seven foot door opening. Optional rod pack for 8' eight foot openings available "**must be noted at time of order**".

For doors under 7' seven foot subtract difference from bottom of top rod, cut per details and redrill hole for retaining plate.

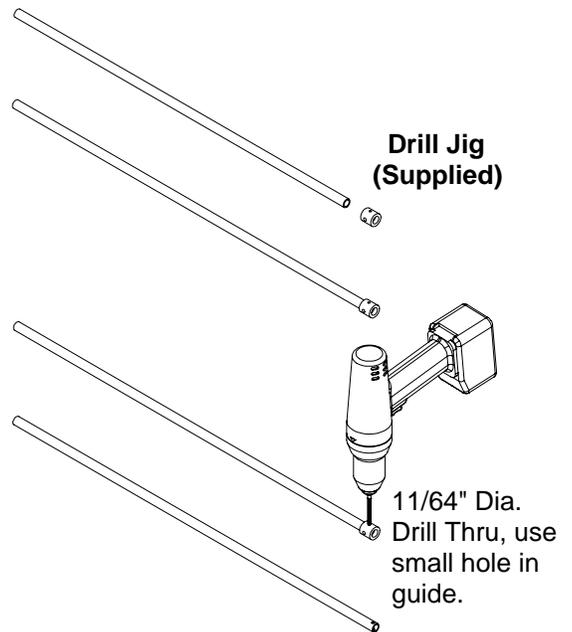
For doors over 7' seven foot but under 9' nine foot a 2' two foot rod extension "ETR" is available. Thread top rod and rod extension together, deduct difference, cut from bottom of top rod and redrill hole for retaining plate. "**Do not cut rod extension**".

For doors over 8' eight foot but under 10' ten foot the 2' two foot rod extension "ETR" is added to the 8' eight foot rod pack. Thread top rod and rod extension together, deduct difference, cut from bottom of top rod and redrill hole for retaining plate. "**Do not cut rod extension**".

NOTE:
If horizontal reference line is moved from the recommended 40 5/16" height, new rods will have to be ordered.



"Do not cut threaded end"



INSTALLING ROD EXTENSION



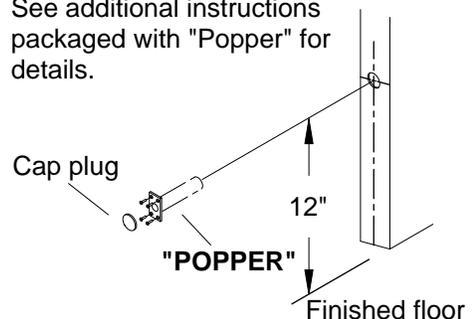
For "ETR" (Extended Top Rod) devices.
*Do not cut extension piece!

Thread rods together securely. "Loc-tite may be used for added security".

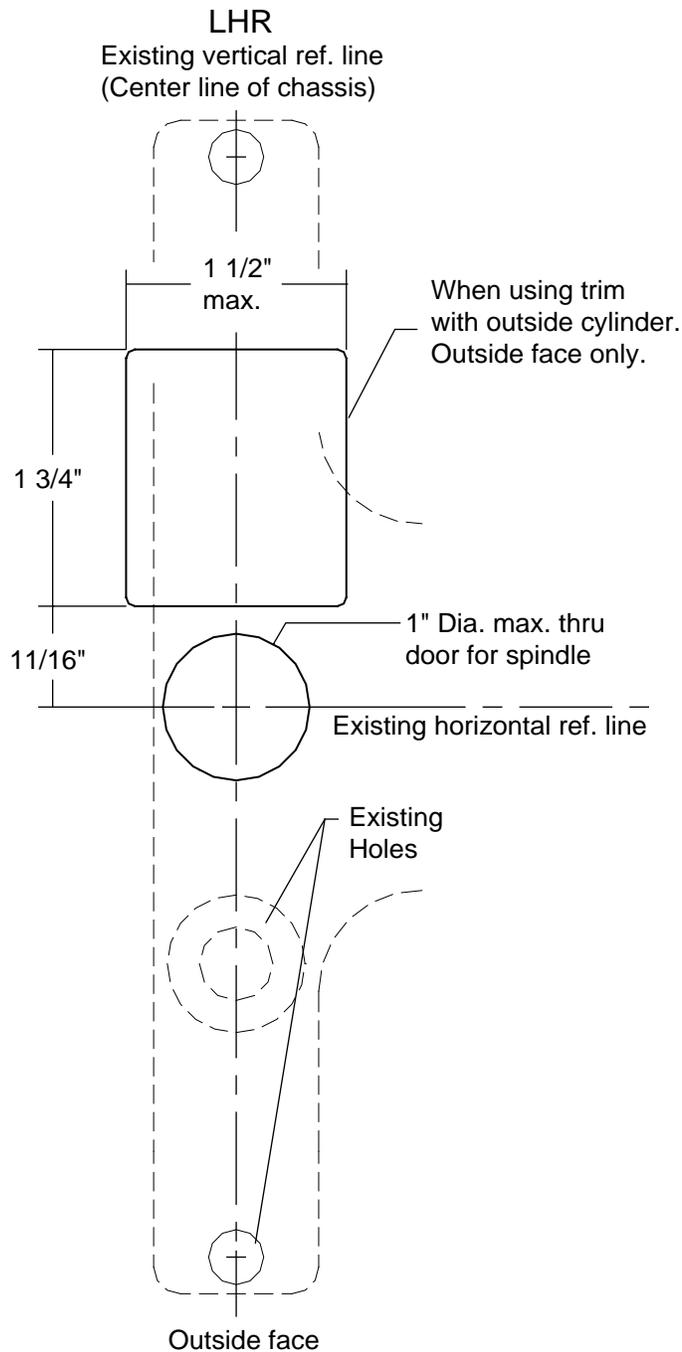
Standard top rod

POPPER DETAILS

Required for; "LBR"
(less bottom rod)
fire rated exit devices.
See additional instructions packaged with "Popper" for details.



RETROFIT FROM EXISTING 5400 TO NEW 9800 MODEL



DO NOT SCALE

Additional installation instructions:

New "Z" trim required if trim is being used.

New rods may be required.

Existing strikes may or may not have to be adjusted or relocated and replaced.

Install chassis assembly to door, install end cap bracket to door, hold touch bar and rail assembly in position aligning screw holes in rail with mounting screw location of chassis, mark a line on rear of rail where front edge of end cap bracket is then cut touch bar and rail assembly to length.

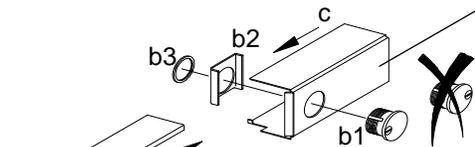
Install touch bar and rail to door then install all covers.

OPTIONS

"CD" (CYLINDER DOGGING) OPTION:

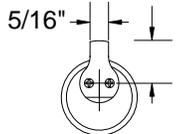
Cylinder dogging installation instructions & cylinder specifications.

NOTE: Touch bar must be in dogged down position, to remove the rear filler panel.



Note: DORMA mortise cylinder supplied. To use other manufacture cylinders, "L" less cylinder is available.

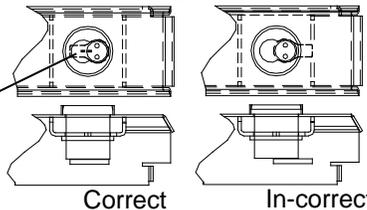
11/16" Min



1" Min. to 1 1/8" Max.

Note: When using IC core cylinders, ensure that cam is in proper position prior to installing the new core.

Witness Marks



Correct

In-correct

Useable Cams

Arrow	001
Assa	Std. (Yale)
Best	C136
Corbin	A02
Falcon	12667-3
DORMA	10
Ilco/Unican	SC1
Lori	SC1 4200-82-2002 Std.
Sargent	13-0664 or 13-0660
Schlage	001
Yale	2160

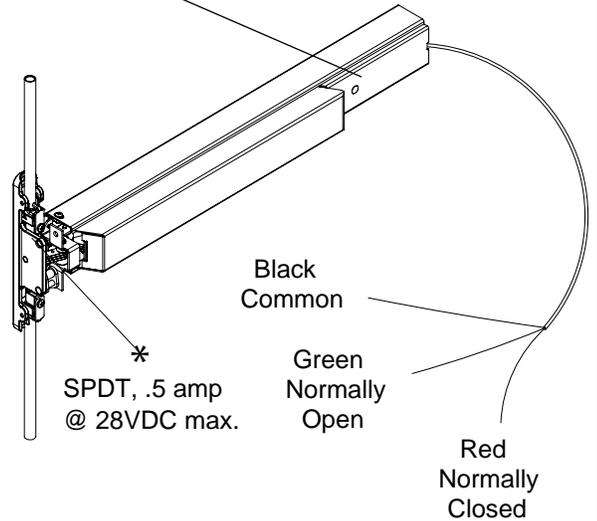
"LM" (LATCH MONITOR) OPTION:

Latch monitor: Monitors movement of bellcrank, with or without depressing of touch bar.

Can be wired normally open or normally closed.

***NOTE:** Use caution when cutting touch bar and rail to length. Additional hole required see **step 6**.

NOTE: Touch bar must be in dogged down position, to remove the rear filler panel.



"BPA" & "BPAR" (ALARM) OPTION: FOR DIRECT WIRED SEE NEXT PAGE

BPA: Battery powered alarm, sounds continuous or until disarmed.

BPAR: Battery powered alarm, sounds for 4 minutes, automatically resets.

"Alarm mode set at factory."

SIZE A:

Will fit 48" door opening without cutting. Can be cut to fit a 37 1/2" minimum door opening.

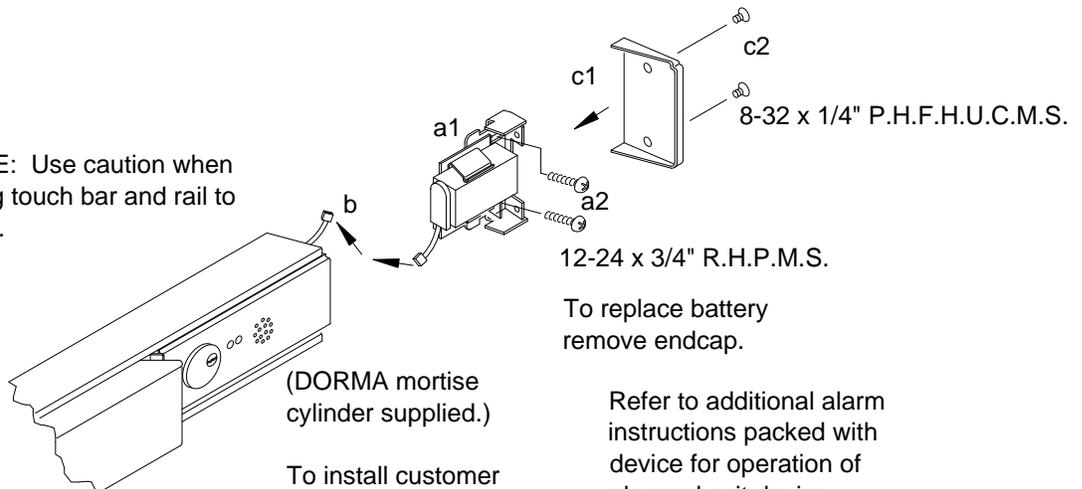
SIZE B:

Will fit 36" door opening without cutting. Can be cut to fit a 31 1/2" minimum door opening.

SIZE C:

Will fit 36" door opening without cutting. Can be cut to fit a 28 1/2" minimum door opening.

***NOTE:** Use caution when cutting touch bar and rail to length.



(DORMA mortise cylinder supplied.)

To install customer supplied cylinder, see cylinder dogging option at top of page.

To replace battery remove endcap.

Refer to additional alarm instructions packed with device for operation of alarmed exit device.

OPTIONS

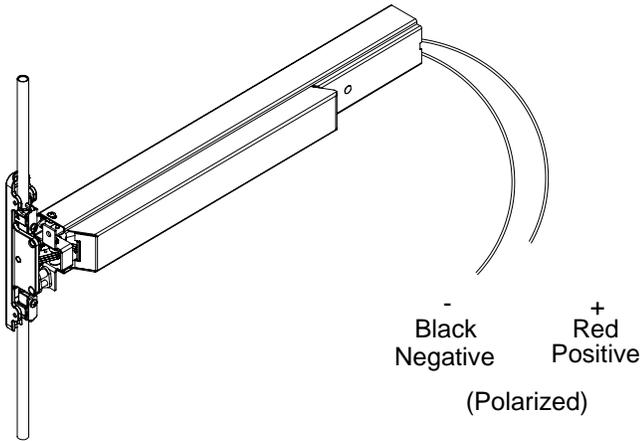
"ES" ELECTRIC LATCH RETRACTION OPTION:

Electrically retracts latchbolt(s) when energized by power supply.

REQUIRES DORMA PS501 POWER SUPPLY & ES105 POWER TRANSFER.

PS501 Will operate (2) "ES" 9800 exit devices, but is capable of powering (2) additional devices by installing the optional "ES-2" card.

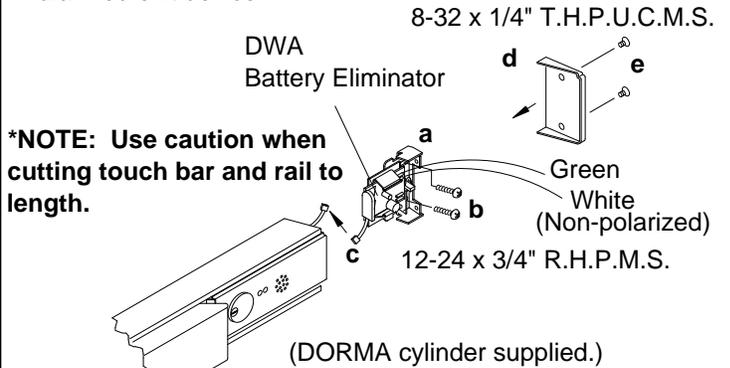
***NOTE:** Use caution when cutting touch bar and rail to length.



"DWA" DIRECT WIRED ALARM OPTION:

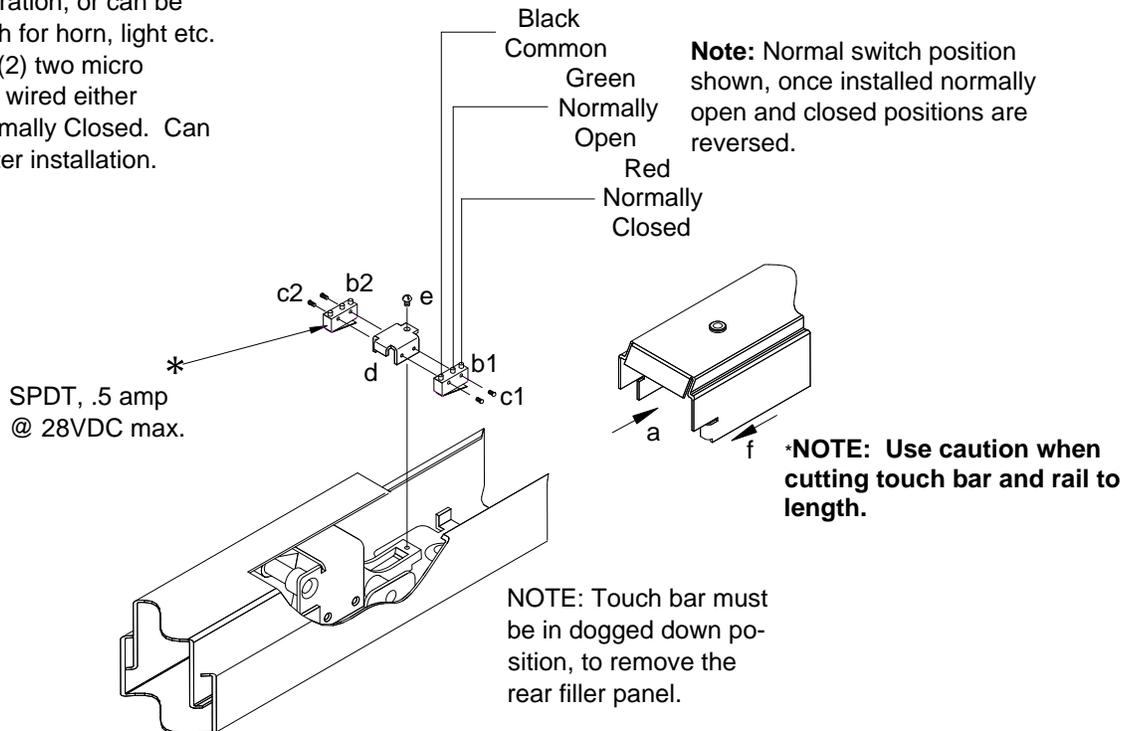
Connected to outside power source. 12-24 Volt AC/DC Power Supply. i.e. DORMA ES100. Contact DORMA for other power supplies available.

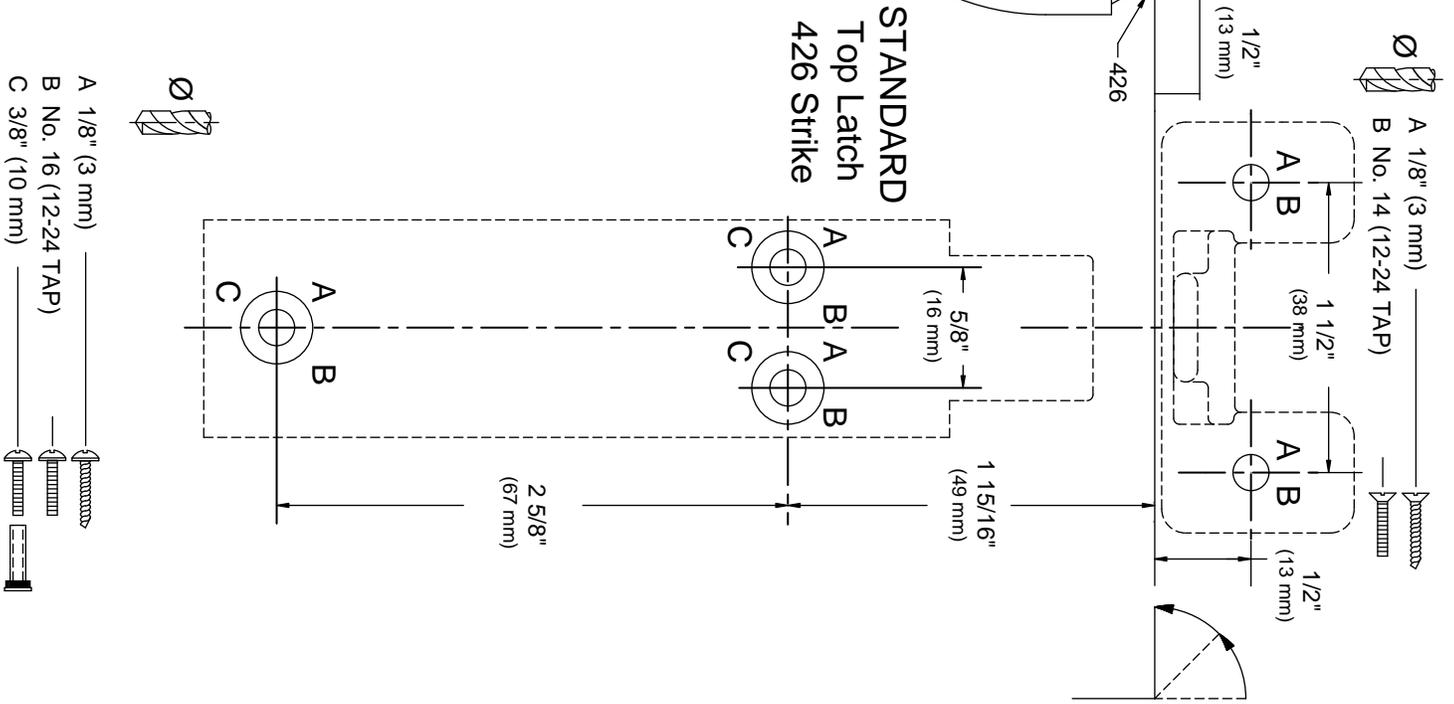
Refer to additional sheet I9000BPA, packaged with device for operation of alarmed exit device.



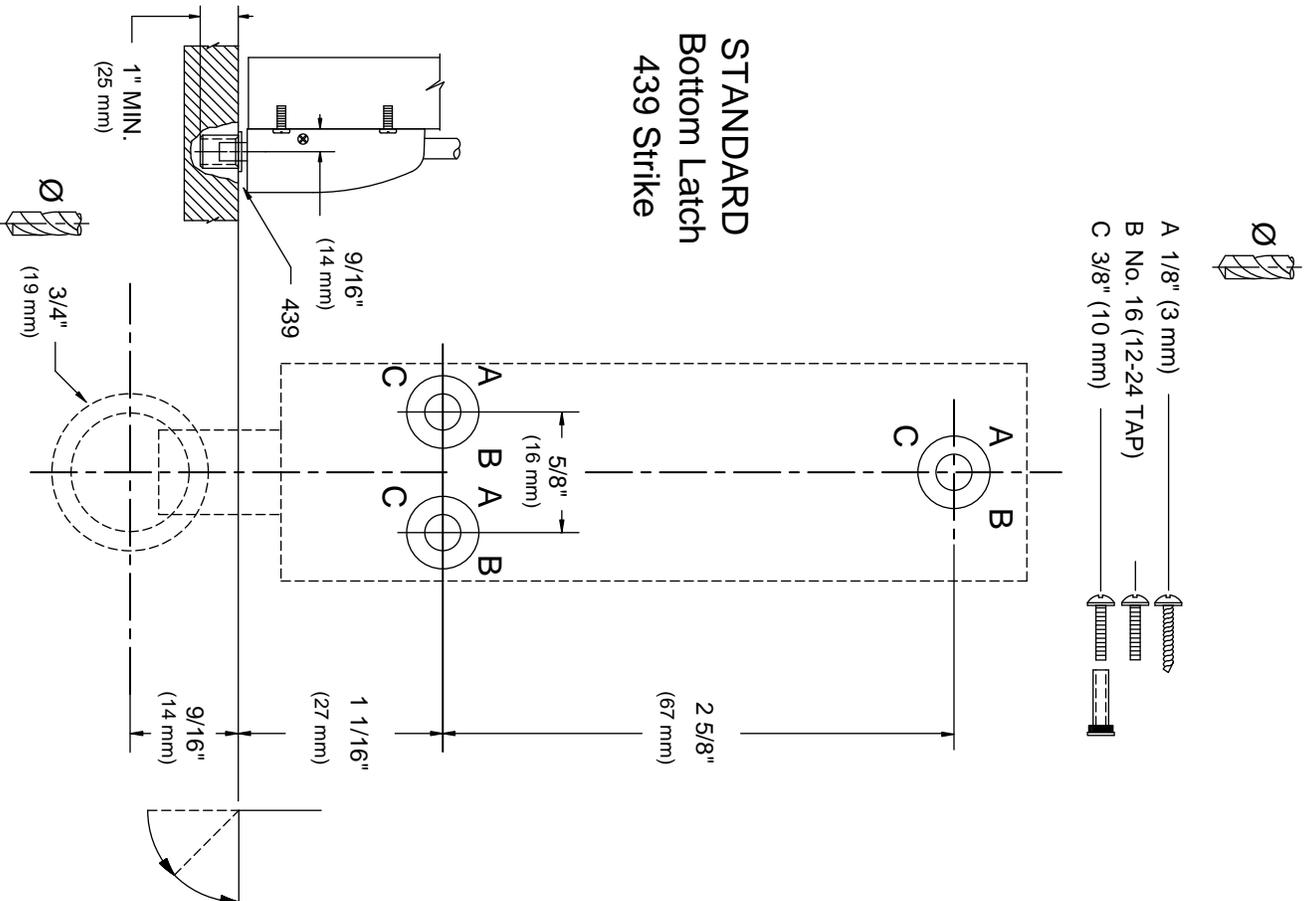
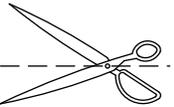
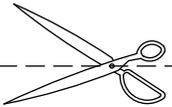
"MS" MICRO SWITCH OPTION:

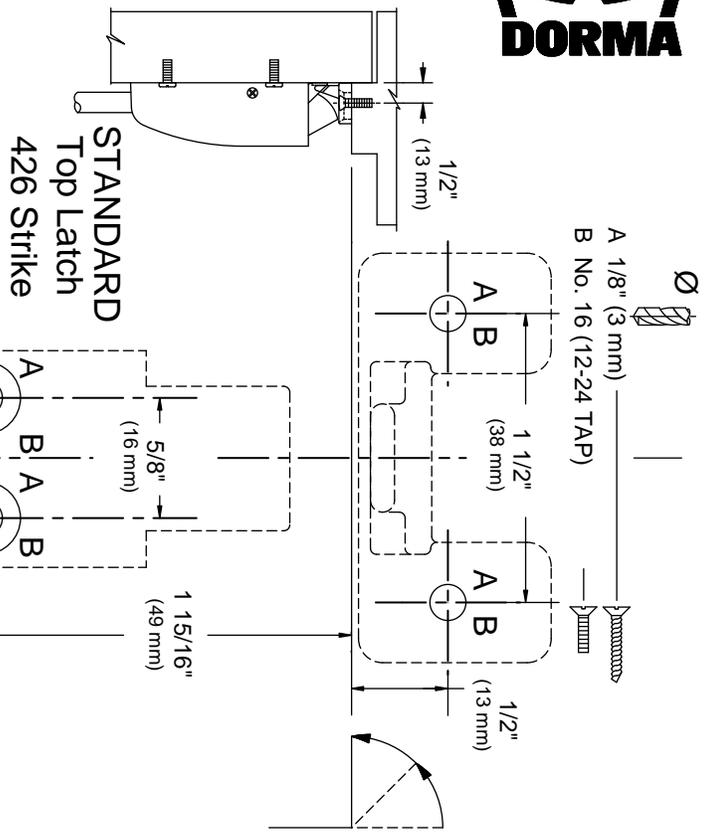
"MS" option allows monitoring of touch bar during normal operation, or can be used as a signal switch for horn, light etc. Comes standard with (2) two micro switches. Both can be wired either Normally Open or Normally Closed. Can be added to device after installation.



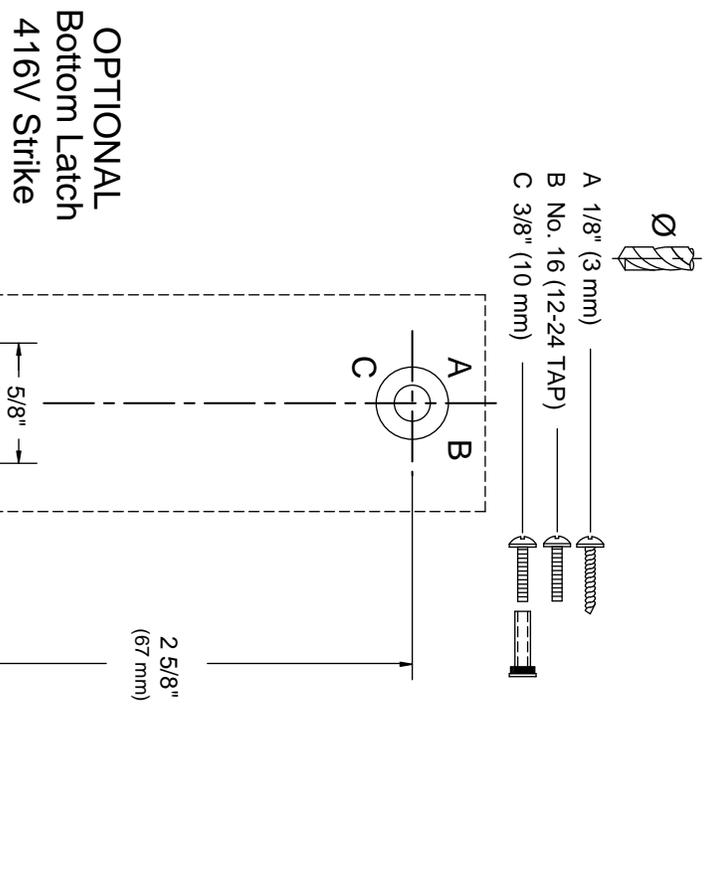
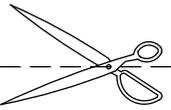
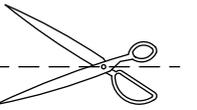


- A 1/8" (3 mm)
 - B No. 16 (12-24 TAP)
 - C 3/8" (10 mm)
-

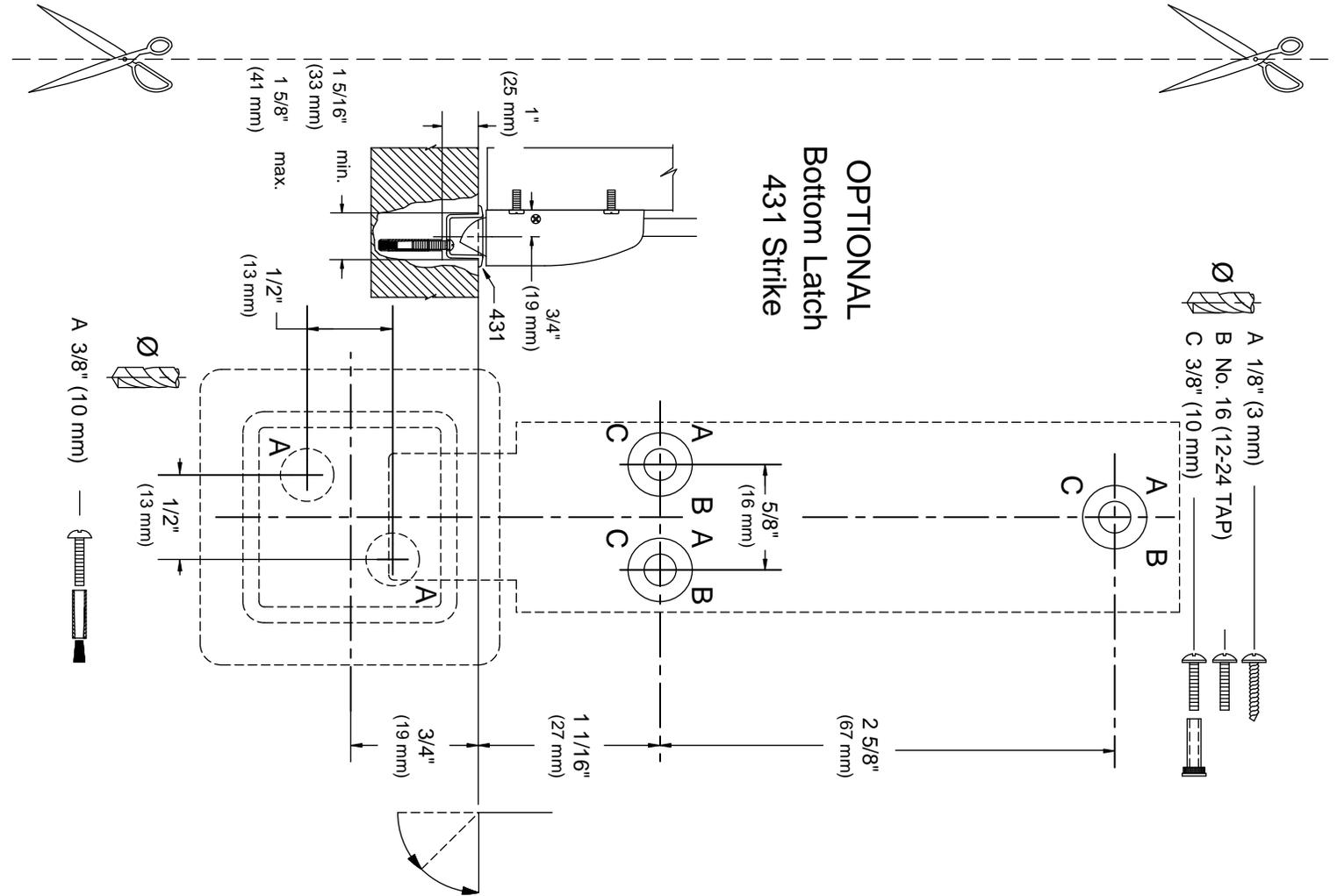
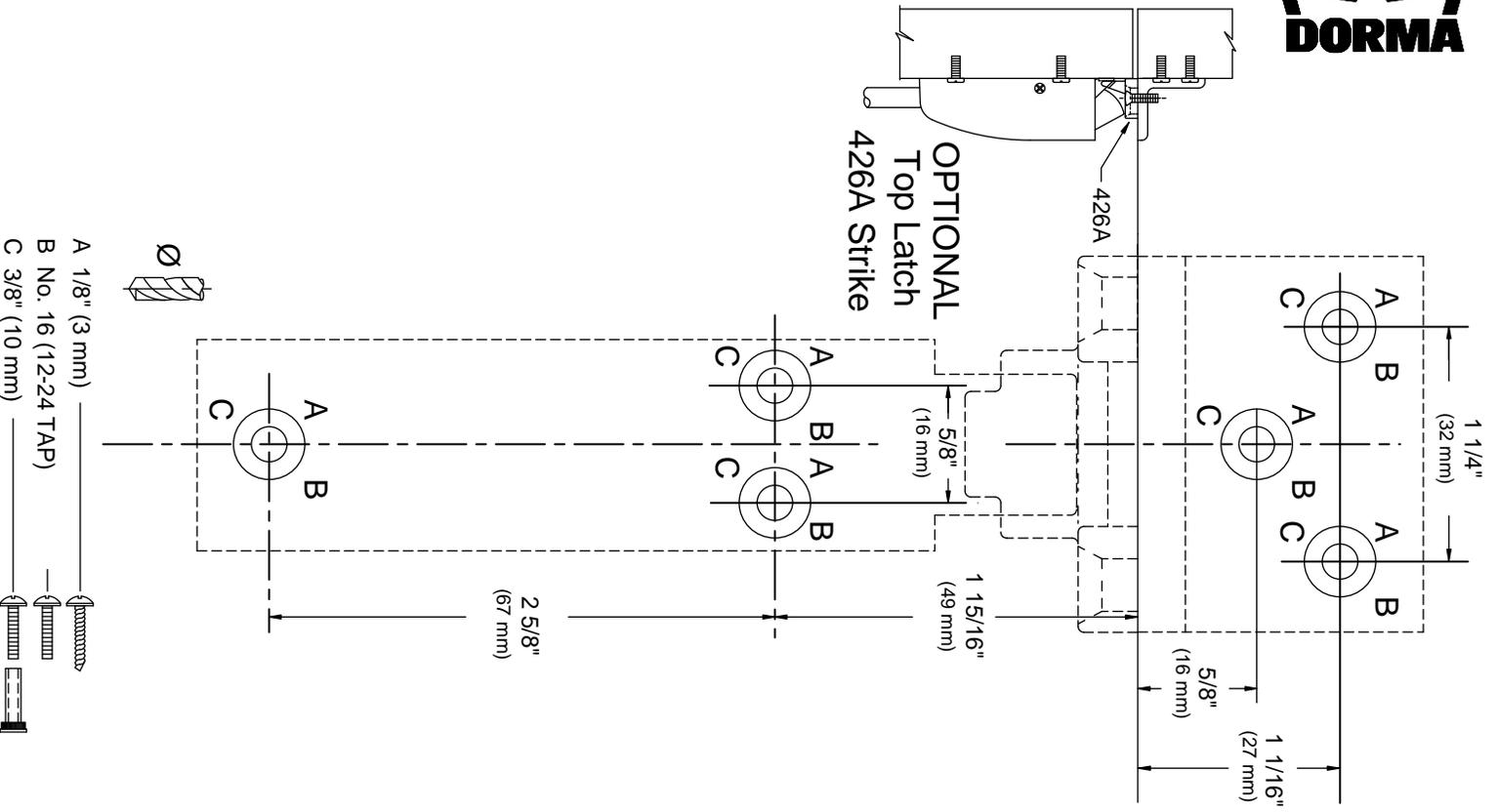




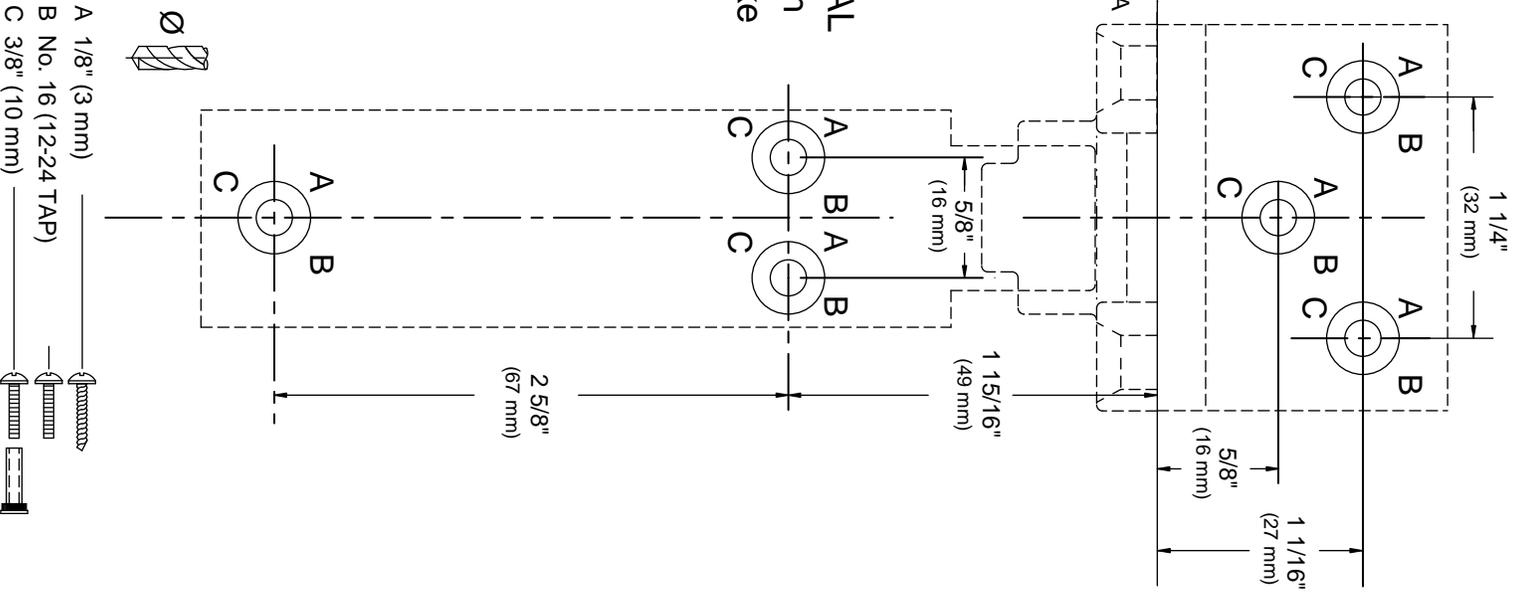
- A 1/8" (3 mm)
 - B No. 16 (12-24 TAP)
 - C 3/8" (10 mm)
-



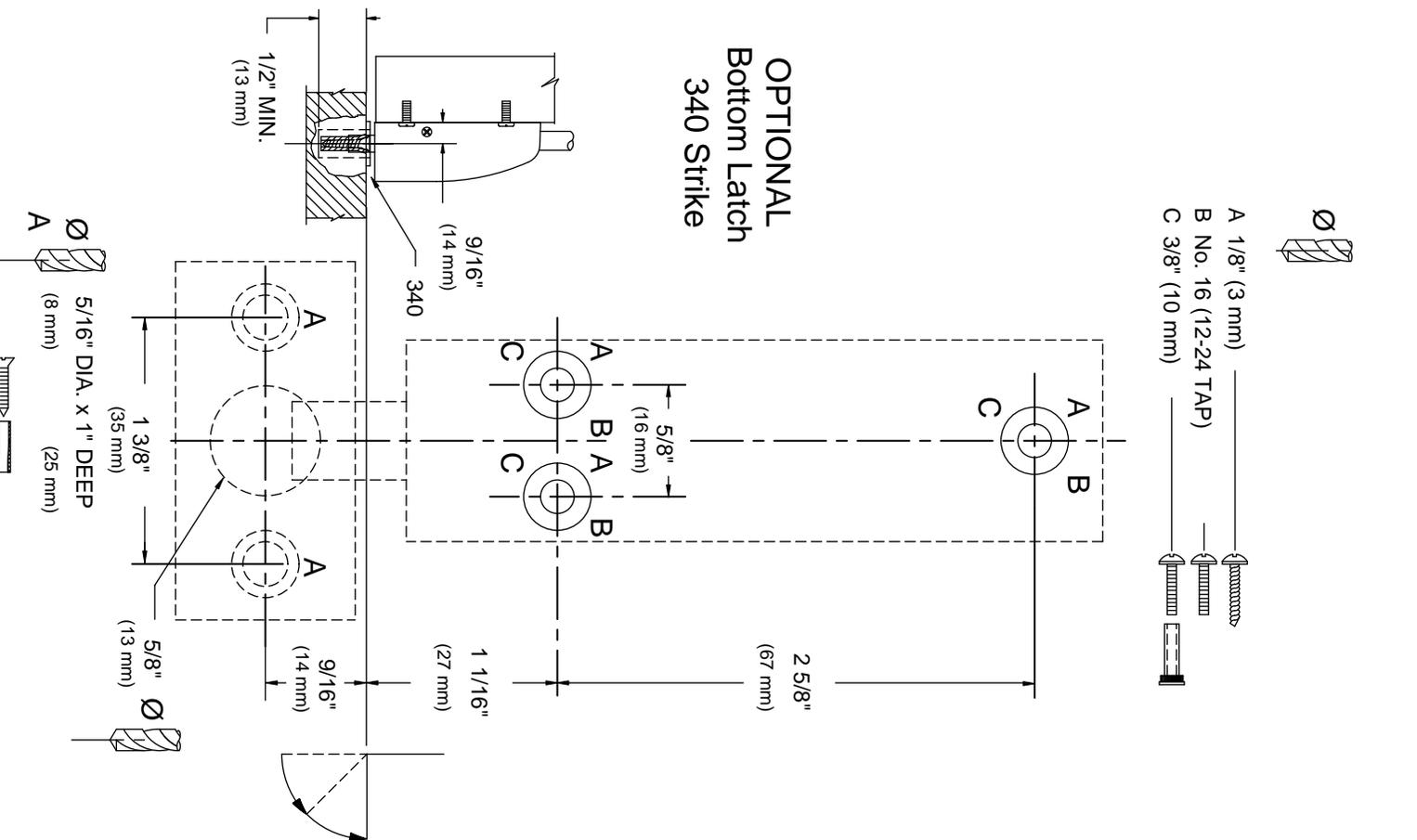
- A 1/8" (3 mm)
 - B No. 16 (12-24 TAP)
 - C 3/8" (10 mm)
-



**OPTIONAL
Top Latch
426A Strike**



**OPTIONAL
Bottom Latch
340 Strike**



LHRB

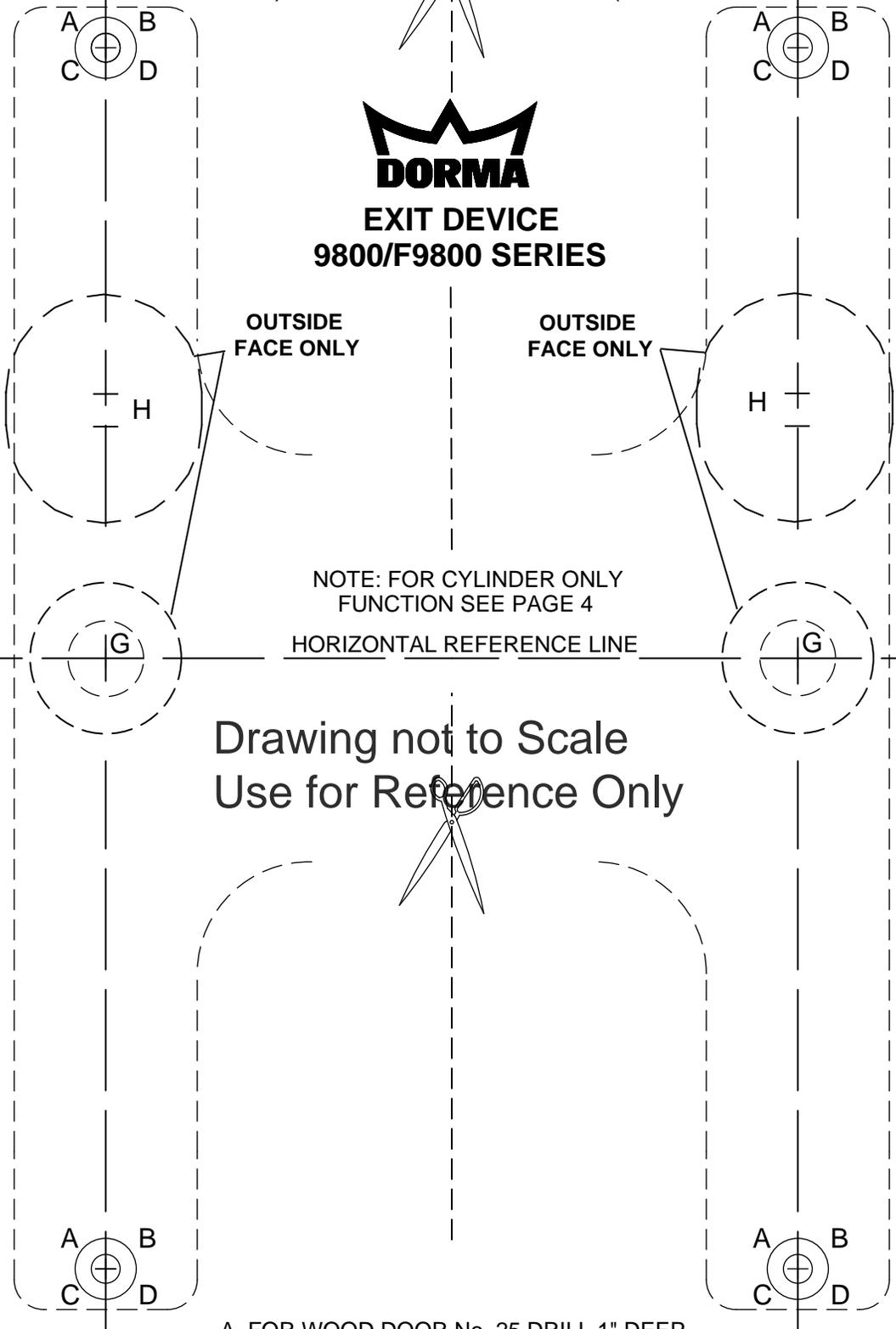
VERTICAL REF. LINE
(CENTERLINE OF CHASSIS)

RHRB

VERTICAL REF. LINE
(CENTERLINE OF CHASSIS)



**EXIT DEVICE
9800/F9800 SERIES**



OUTSIDE
FACE ONLY

OUTSIDE
FACE ONLY

NOTE: FOR CYLINDER ONLY
FUNCTION SEE PAGE 4

HORIZONTAL REFERENCE LINE

**Drawing not to Scale
Use for Reference Only**

- A FOR WOOD DOOR No. 25 DRILL 1" DEEP
- B FOR METAL DOOR No. 16 DRILL 12-24 TAP
- C FOR SEX BOLT 3/8" DIA. HOLE THRU DOOR
- D FOR USE WITH TRIM 3/8" DIA. HOLE THRU DOOR
- G FOR KNOB/LEVER/THUMBTURN 1" DIA. OUTSIDE FACE
1/2" DIA. INSIDE FACE
- H FOR KNOB/LEVER/THUMBTURN 1" DIA. OUTSIDE FACE
1 1/2" DIA. x 1 3/4" HIGH FOR CYLINDER CLEARANCE