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INSTALLATION INSTRUCTIONS FOR ADVANTEX[®] CONCEALED VERTICAL ROD

ADVANTEX[®]

Concealed Vertical Rod Exit Device
87 Series - High security
for Medium to Wide Stile
Hollow Metal door applications
Drawing No: 106700

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Owner's Copy

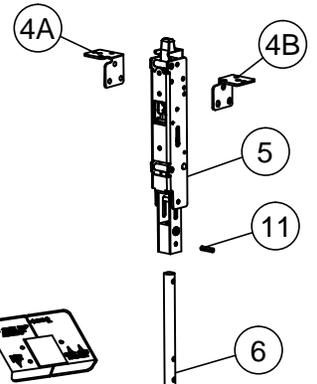
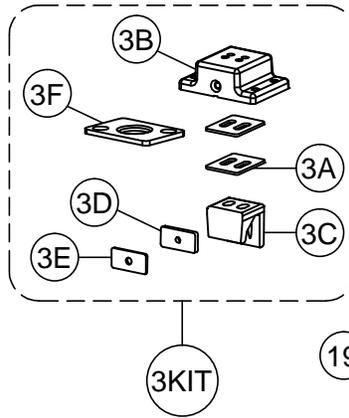
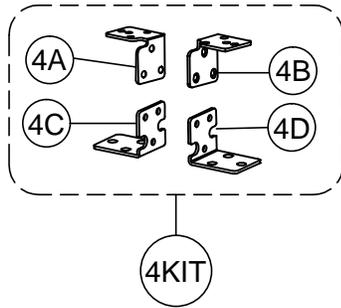
For WARRANTY information,
scan code below or
go to www.detex.com/warranty



Should you have a Question/Problem with your Detex device please call Detex Technical Support from the job site at 1-800-729-3839 and choose option 2 on our menu. Please do not return the product to the distributor.

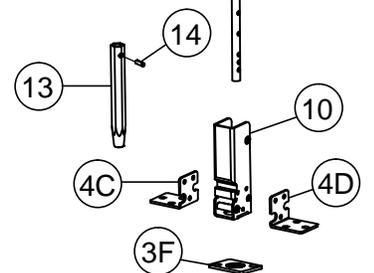
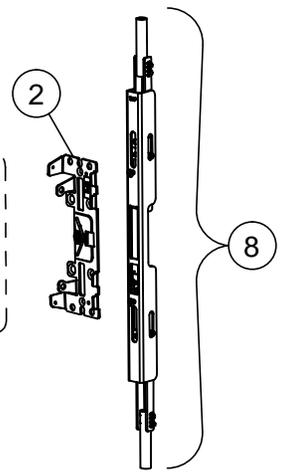
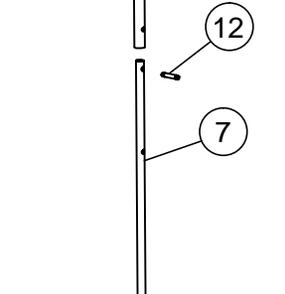
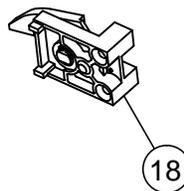
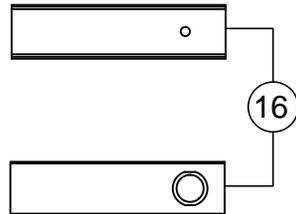
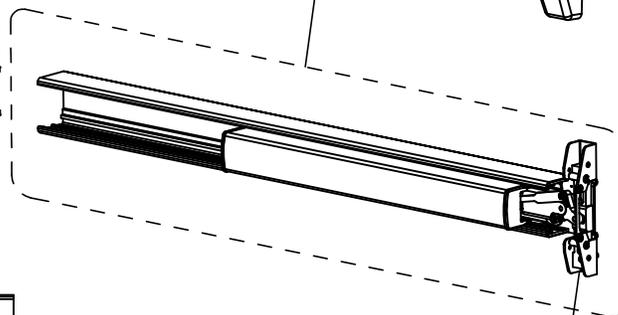
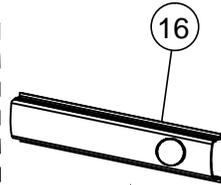
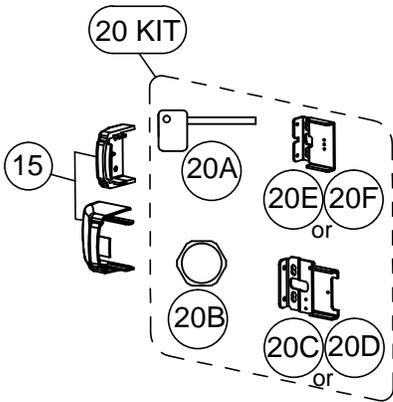
For device installation
videos, scan code below
or go to www.detex.com/videos





*** NOTE:**
 Parts listed will vary according to product configuration.
 Mortise cylinder available as an option. Standard Yale type
 cam required. See Mortise cylinder installation page.

Your particular part or configuration may not be shown:
 Contact Detex technical support at 800-729-3839 (option 2)



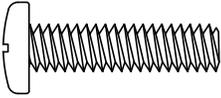
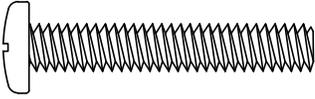
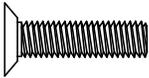
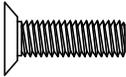
Your particular part or configuration may not be shown: Contact Detex technical support at 800-729-3839 (option 2)

PARTS BREAKDOWN			
Item	Part #	Description	
1KIT	105500-165	S&R Centercase/Pushpad Assy, ADV 87 x STD1 x RHR, 36", 630	(Includes Item 1A)
	105500-166	S&R Centercase/Pushpad Assy, ADV 87 x STD1 x LHR, 36", 630	
1A	104111-13	Centercase, CVR, Wide, RHR	
	104111-14	Centercase, CVR, Wide, LHR	
2	104171-1	Mounting plate, Wide, CVR, BP11 (Used with 08/09 lever trim)	
	104171-2	Mounting plate, Wide, CVR, BP13 (Used with 03 trim)	
3KIT	106406-1	Strike kit, ADV 87	(Includes Items 3A-3F)
3A	105246	CVR strike shim	
3B	105979-1	CVR top strike pocket, ADV 87	
3C	105236-1	CVR top strike insert	
3D	106145	CVR primary load shim, ADV 87	
3E	106146	CVR supplemental load shim, ADV 87	
3F	105249	Bottom strike (top and bottom rod device only)	
4KIT	106409-1	Latch mounting kit, ADV 87	(Includes Items 4A-4D)
4A	106150-1	Top latch mounting bracket, ADV 87, RHR	
4B	106150-2	Top latch mounting bracket, ADV 87, LHR	
4C	105982-3	Bottom bolt mounting bracket, ADV 87, RHR (top and bottom rod device only)	
4D	105982-4	Bottom bolt mounting bracket, ADV 87, LHR (top and bottom rod device only)	
5	105984-1	Top latch assembly, ADV 87 (Panic)	
	105984-2	Top latch assembly, ADV 87 (Fire)	
6	104187	Outer top rod, 7' thru 8'	
	105097	Outer top rod, 8'-1" thru 10'	
7	104172-1	Inner top rod, 7' thru 8'	
	104172-2	Inner top rod, 8'-1" thru 10'	
8	105990-1	Center lift mechanism assembly	
9	105098	CVR bottom rod (top and bottom rod device only)	
10	106330-1	Bottom boltcase assembly, ADV 87 (top and bottom rod device only)	
11	105296	Spring pin 3/16 x 13/16	
12	103423	Spring pin 3/16 x 1/2	
13	103536-1	Bottom bolt, HURRICANE (top and bottom rod device only)	
14	101607	Spring pin 3/16 x 5/8 (top and bottom rod device only)	
15	101642-9	Endcap, EC1 (ramped) Stainless Steel 630	
	104304-9	Endcap, EC2 (flush) Stainless Steel 630	
16	100860-54	Fillerplate Subassembly, S&R, Hex Dogging, HD, 630	
	100860-49	Fillerplate Subassembly, S&R, Cylinder Dogging, CD, 630	
	100860-100	Fillerplate Subassembly, S&R, Hex Dogging, HD, 628	
17	102353-9	Centercase Cover, Stainless Steel, Wide, 630	
18	102216-2	Hex Dogging Assembly	
	102216	Cylinder Dogging Assembly	
19	105299-1	Template, Top Strike Prep	
20KIT	106431-1	Device Hardware Kit, HD, EC1 (not all components shown, includes Items 20A & 20C)	
	106431-2	Device Hardware Kit, CD, EC1 (not all components shown, includes Items 20B & 20C)	
	106431-3	Device Hardware Kit, EA, EC1 (not all components shown, includes Items 20B & 20D)	
	106431-21	Device Hardware Kit, HD, EC2 (not all components shown, includes Items 20A & 20E)	
	106431-22	Device Hardware Kit, CD, EC2 (not all components shown, includes Items 20B & 20E)	
	106431-23	Device Hardware Kit, EA, EC2 (not all components shown, includes Items 20B & 20F)	
20A	100450	Hex Key (for Hex Dogging)	
20B	100783	Cylinder Nut (for Cylinder Dogging)	
20C	100147	Endcap bracket for EC1 (ramped) endcap w/o battery holder	
20D	101093	Endcap bracket for EC1 (ramped) endcap w/ battery holder	
20E	104303	Endcap bracket for EC2 (flush) endcap w/o battery holder	
20F	104636	Endcap bracket for EC2 (flush) endcap w/ battery holder	

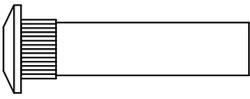
Hardware Table for BASIC device mounting.
 Additional hardware is provided per the device configuration in kit form and
 is addressed on the appropriate pages as required.

Fastener Table

ADVANTECH 87 Device Mounting Hardware

Screw style & size	Description	Used on and Drill Bit used
	1/4-20 x 1" PPH P/N: 100980	Used to install backplate & endcap bracket to door Drill Bit - #7 or 13/64"
	1/4-20 x 1-1/2" PPH P/N: 100954	Used to install backplate & endcap bracket on 2" or greater door thickness with Trim and/or sex nuts
	10-24 x 1/4" PPH P/N: PP-5304-104	Used to secure device centercase to backplate
	10-32 x 5/16" PFH P/N: 101632-2	Used to install endcap to endcap bracket (Multiple finishes included)
	6-32 x 3/8" PFH P/N: 100162-106	Used to install centercase cover to backplate (Multiple finishes included)
	10-24 x 3/4" PFH P/N: 100112-110	Used to fasten centerlift assembly to backplate (Use 100112-110 for 14 gauge or heavier)
	10-24 x 5/8" PFH P/N: 100112	Used to fasten centerlift assembly to backplate (Use 100112 for 16 gauge & thinner)
	1/4" Lockwasher P/N: PP-5067-25	Lockwashers used with 1/4-20 screws

Sex nuts, if ordered. Sex nuts are used with screws in device hardware kit.

	1/4-20 X 1.60 Sex nut P/Ns: 105274-9 (Stainless Steel) 105274-2 (Brushed Brass) 105274-25 (Oil Rub Bronze)	Used to install backplate and endcap bracket to door If using sex nuts with TRIM: Drill 9/32 hole through interior door face. Drill 1/2 hole through exterior door face. If using sex nuts without TRIM: Drill 3/8 hole through exterior door face.
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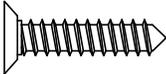
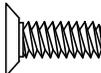
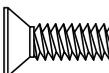
Tools Required

Power Drill
 Hammer
 Hack Saw (chopsaw preferred)
 Safety Glasses
 Phillips Screw Driver
 Hex Wrench -1/8 & 5/32
 Tape Measure

Tap Wrench
 Masonry Bits - 3/16", 1/4", 5/16", 7/8", & 1"
 Pencil
 Pliers
 Drill bit set
 Center Punch
 Level

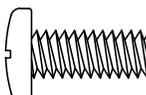
Fastener Table

ADVANTEK 87 Strike Mounting Hardware

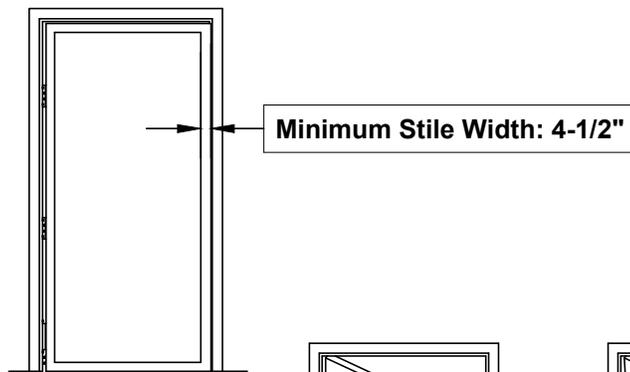
	#10 x 1" self-cutting PFH P/N: 100109	Used to install bottom strike to floor (used with anchors, two styles of anchor included)
	10-24 x 1/2" PFH P/N: 100112-108	Used to install bottom strike to floor (alternate)
	10-32 x 5/8" FHSC P/N: 106440-110	Used to secure top strike pocket and top strike insert to header
	8-32 x 1/4" PFH P/N: 100156-104	Used to install primary load shim (QTY: 1) to top strike pocket
	8-32 x 5/16" PFH P/N: 101950-105	Used to install primary shim (QTY: 1) & supplemental load shim (QTY: 1 or 2) to top strike pocket
	8-32 x 7/16" PFH P/N: 101950-107	Used to install primary load shim (QTY:1) & supplemental load shims (QTY: 3 or 4) to top strike pocket
	Anchor (1" long) P/N: 101129-1	1/4 pilot hole Used to install bottom strike to floor
	Alligator Anchor (5/16 x 1-9/16) P/N: 102642-6	1/4 pilot hole Used to install bottom strike to floor

Fastener Table

ADVANTEK 87 Latch Mounting Hardware

	1/4-20 x 5/8" PPH, SS Machine screw P/N: 100110	Used to install top latch mounting brackets to door
	10-24 x 1/4" BHS, BLK Machine screw 1/8 Socket HD P/N: 106434-104	Used to install top latch mounting brackets to top latch assembly

!!!CHECK BEFORE STARTING!!!



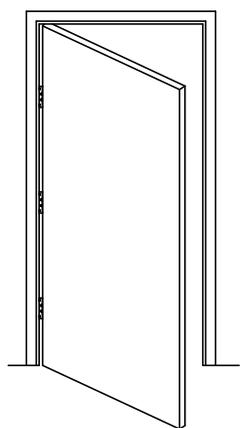
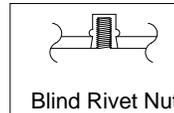
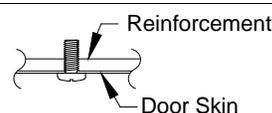
Doors and frames with walls having a structural thickness (metal skin plus reinforcement) to engage less than (3) full screw threads, are considered unreinforced for hardware.

Unreinforced Doors: Use Sex Nuts and Bolts

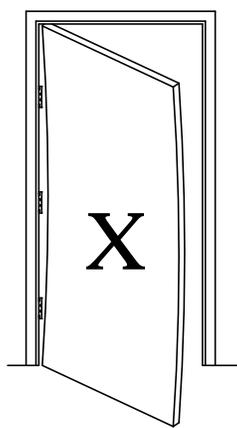
Unreinforced Frames: Use Blind Rivet Nuts (see sketch).

Fasteners for unreinforced openings are not supplied by Detex.

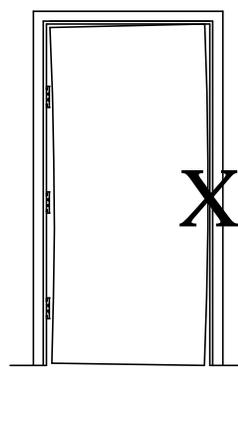
Reinforced door or frame engages at least (3) screw threads.



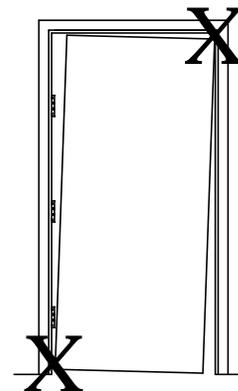
Door Must Swing Freely



Door Must Not be Warped



Door Must Not Bind



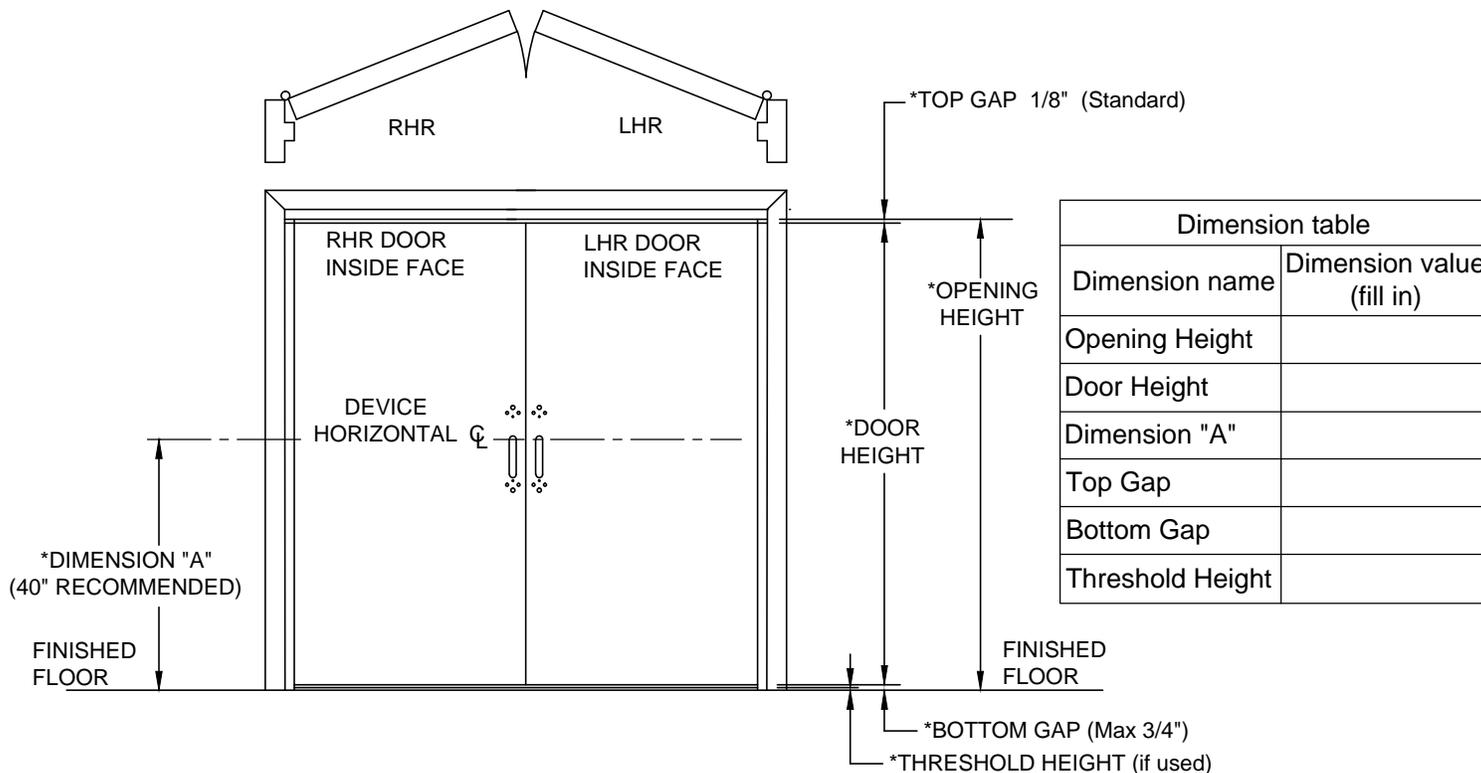
Door Must Not Sag

NOTE: LOCAL CODES MAY REQUIRE THROUGH BOLTING. SEX NUTS ARE **NOT** INCLUDED WITH THIS DEVICE. SEX NUTS CAN BE PURCHASED SEPARATELY.

STEP 1: DOOR / OPENING MEASUREMENTS

Measure per figure below:

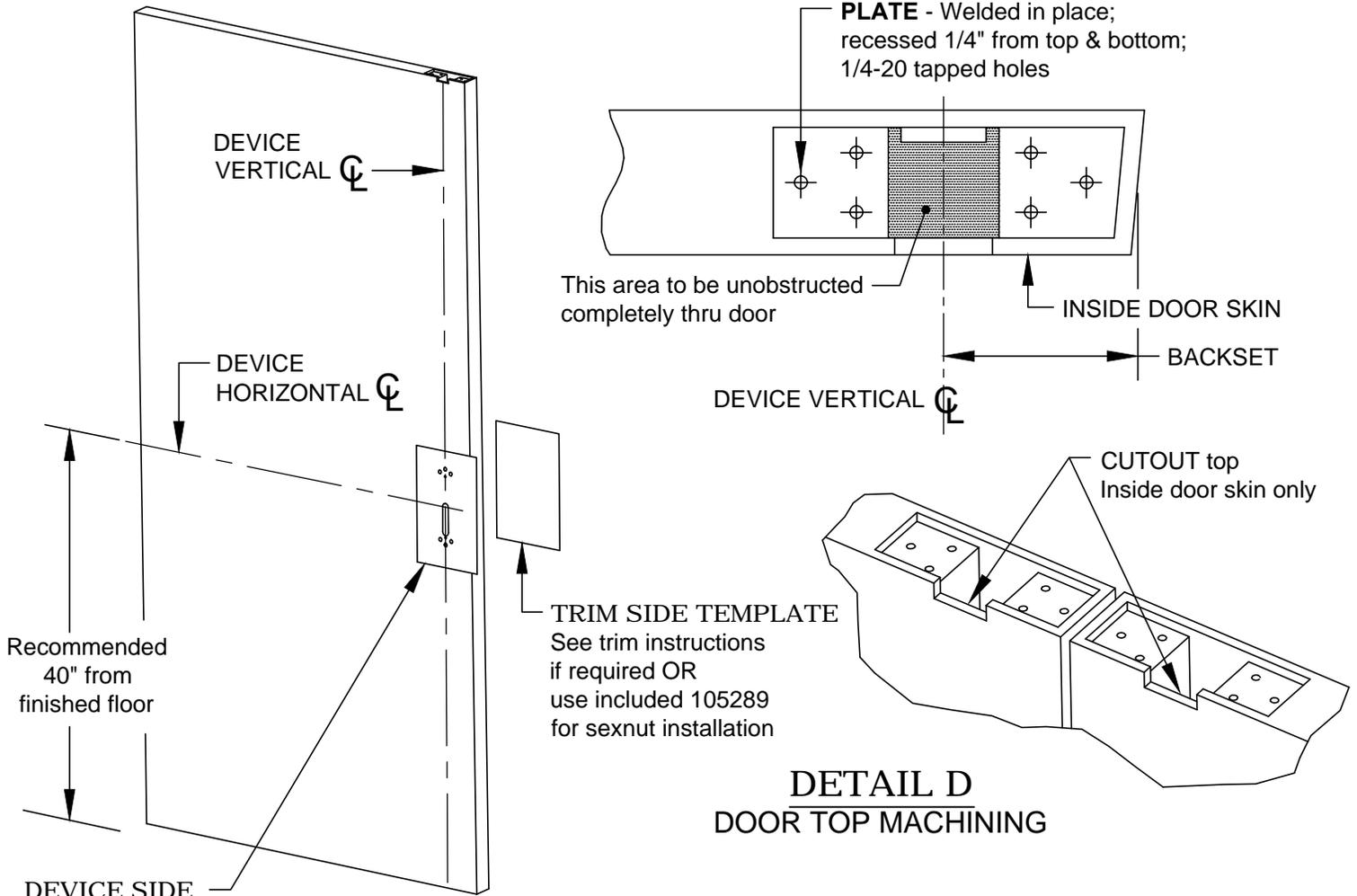
*These dimensions will be needed during rod length adjustment. Measure door before removing.



Dimension table	
Dimension name	Dimension value (fill in)
Opening Height	
Door Height	
Dimension "A"	
Top Gap	
Bottom Gap	
Threshold Height	

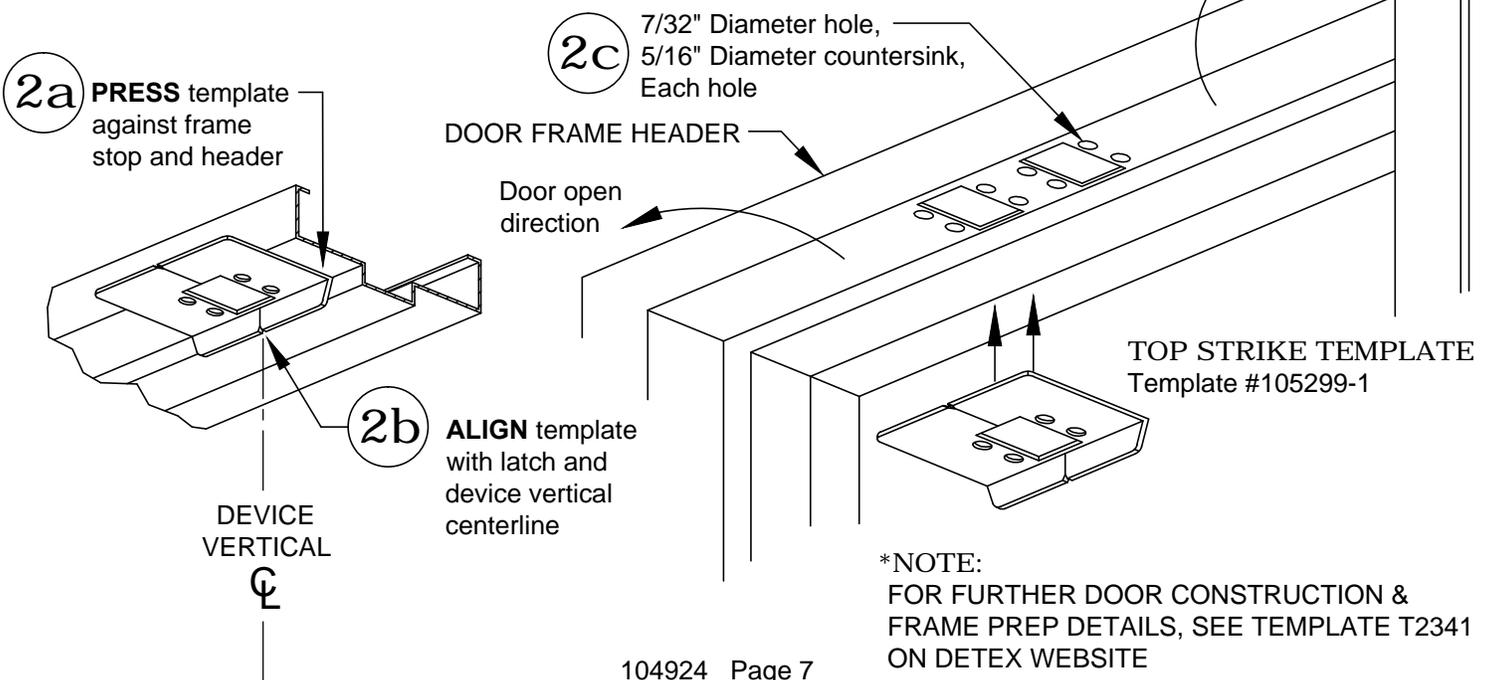
STEP 2: DOOR PREP - HOLLOW METAL DOOR

INSTALLATION SHOWN IN THIS INSTRUCTION IS FOR RIGHT HAND REVERSE (RHR);
LEFT HAND REVERSE (LHR) WILL BE OPPOSITE



DEVICE SIDE TEMPLATE
Template P/N 105287

TOP STRIKE FRAME PREP (if not already prepped)



STEP 3: TOP ROD ASSEMBLY & INITIAL ADJUSTMENT

For 6'-8" (80") to 8'-0" (96") Door

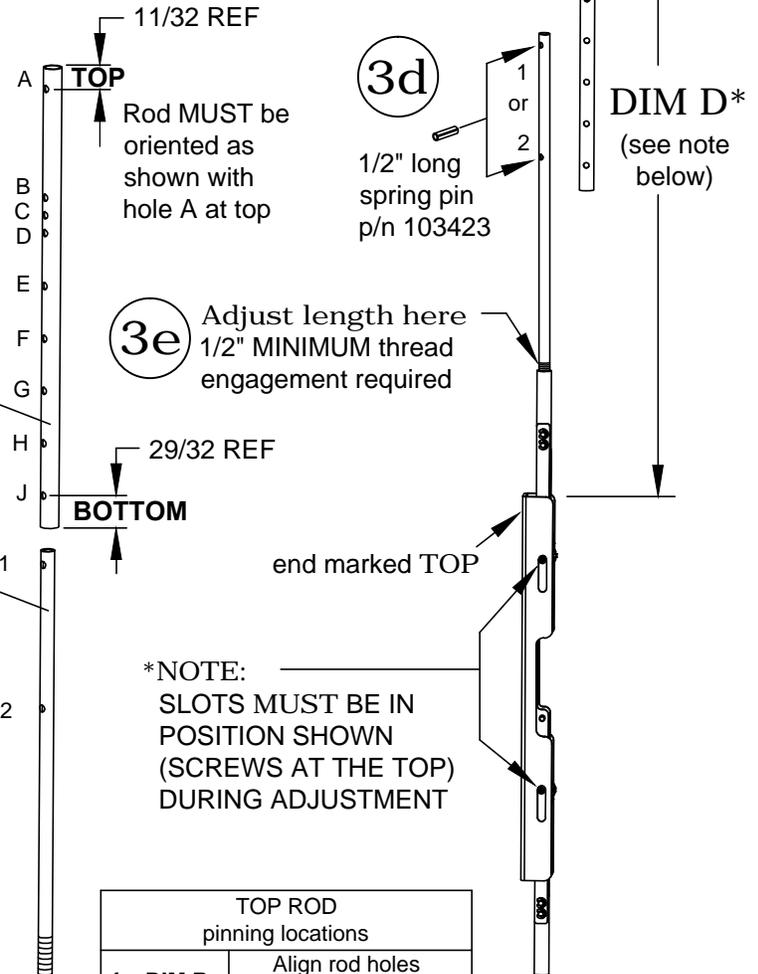
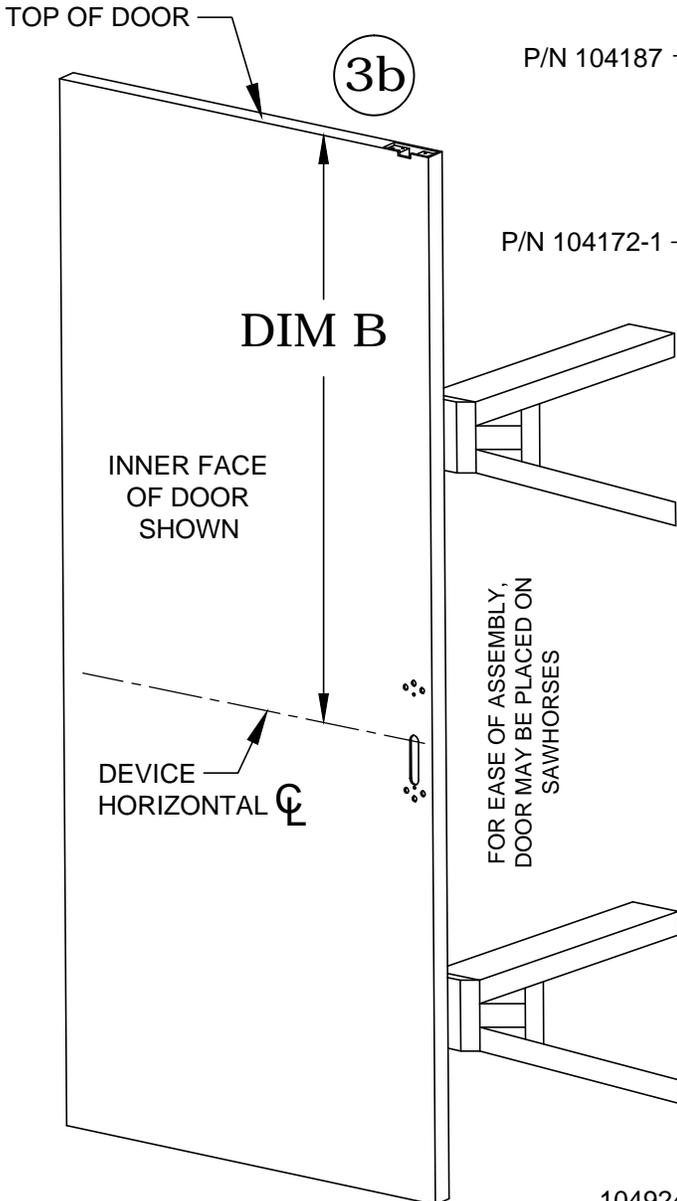
3a. Align hole A in rod 104187 with hole in top latch as shown at right & tap the 13/16" long pin into latch hole.

3b. Measure **DIM B** as shown below.

3c. Use chart to determine pinning location of rods 104187 & 104172-1.
Round **DIM B** to nearest value in chart. If more than 3/4" different from one of these chart values, drill a .189 (#12 drill bit) diameter hole halfway between the 2 holes nearest to the measured **DIM B** and use this hole as pinning hole in next step.

3d. Insert 104172-1 rod into 104187 rod & line up appropriate pinning holes (from chart) on both rods and tap in the 1/2" long pin to secure.

3e. Calculate **DIM D**:
(**DIM D** = measured **DIM B** minus 15 7/8")
Thread the assembled rods/latch into the centerlift mechanism assembly as shown at right until **DIM D** is achieved (within 1/16").



TOP ROD pinning locations		
for DIM B dimension of:	Align rod holes	
	Rod p/n 104172-1 HOLE	Rod p/n 104187 HOLE
39-7/8"	2	B
40-7/8"	2	C
41-7/8"	2	D
43-7/8"	1	B
44-7/8"	1	C
45-7/8"	1	D
47-7/8"	1	E
49-7/8"	1	F
51-7/8"	1	G
53-7/8"	1	H
55-7/8"	1	J

Note: If the combination of holes used is 2B or 2C, cut off approximately 2" from the UNTHREADED end of rod 104172-1

STEP 3: TOP ROD ASSEMBLY & INITIAL ADJUSTMENT

For 8'-1" (97") to 10' (120") Door

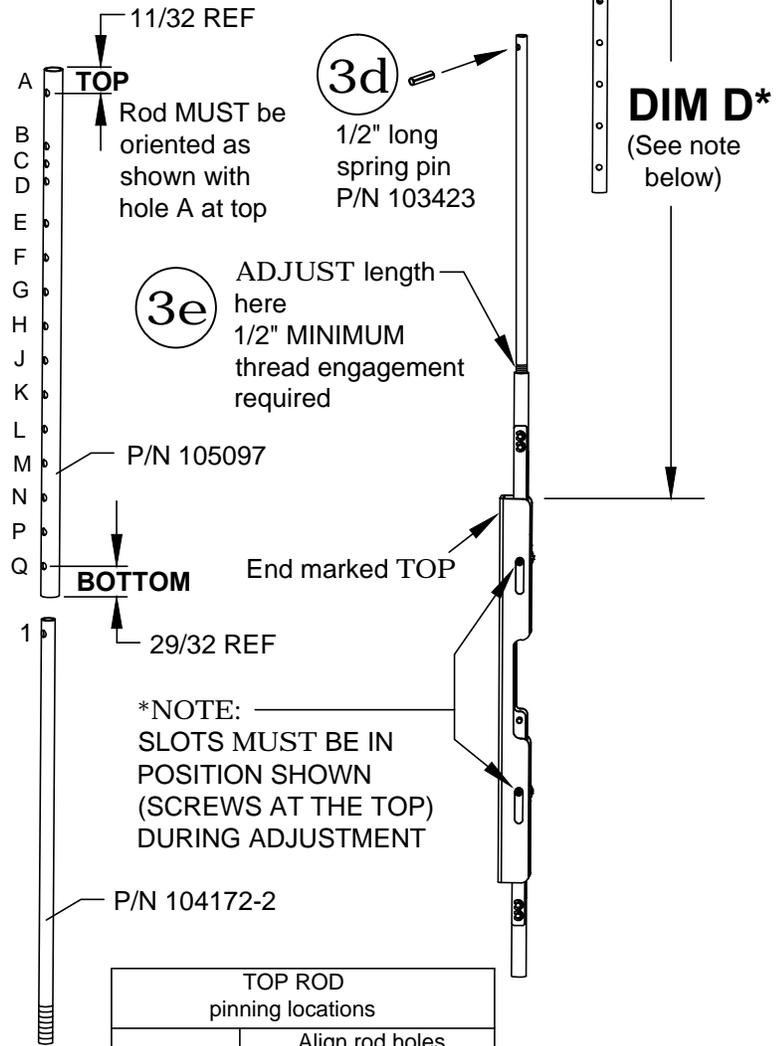
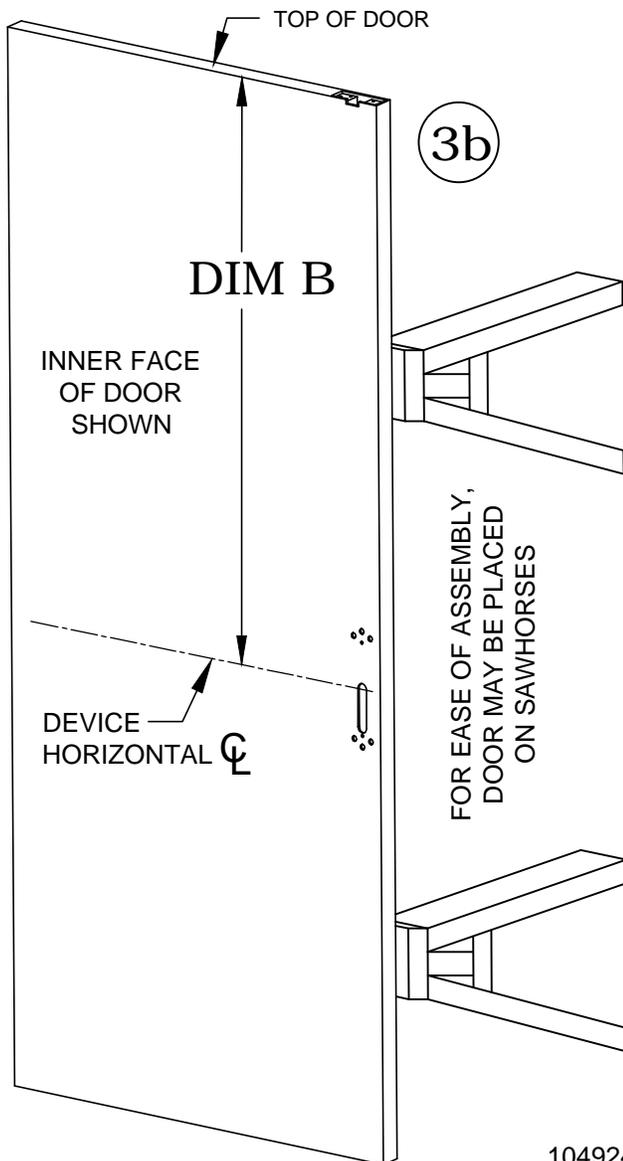
3a. Align hole A in rod 105097 with hole in top latch as shown at right & tap the 13/16" long pin into latch hole.

3b. Measure DIM B as shown below.

3c. Use chart to determine pinning location of rods 105097 & 104172-2.
Round DIM B to nearest value in chart. If more than 3/4" different from one of these chart values, drill a .189 (#12 drill bit) diameter hole halfway between the 2 holes nearest to the measured DIM B and use this hole as pinning hole in next step.

3d. Insert 104172-2 rod into 105097 rod & line up appropriate pinning holes (from chart) on both rods and tap in the 1/2" long pin to secure.

3e. Calculate DIM D:
(DIM D = measured DIM B minus 15 7/8")
Thread the assembled rods/latch into the centerlift mechanism assembly as shown at right until DIM D is achieved (within 1/16").



TOP ROD pinning locations		
for DIM B dimension of:	Align rod holes	
	Rod p/n 104172-2 HOLE	Rod p/n 105097 HOLE
55-7/8"	1	B
56-7/8"	1	C
57-7/8"	1	D
59-7/8"	1	E
61-7/8"	1	F
63-7/8"	1	G
65-7/8"	1	H
67-7/8"	1	J
69-7/8"	1	K
71-7/8"	1	L
73-7/8"	1	M
75-7/8"	1	N
77-7/8"	1	P
79-7/8"	1	Q

STEP 4: BOTTOM ROD / LATCH ASSEMBLY & ADJUSTMENT

4a. Using DIM A as measured in step 1, use chart to determine pinning location.

If DIM A is less than 37-1/4" from finished floor, a new pin hole must be drilled through 105098 rod. Subtract the centerline dimension from 38" and measure up this distance from hole V. Mark and drill .189 diameter hole (#12 drill).

If DIM A is more than 41-1/2", from floor, call customer service at 1-800-729-3839 for assistance.

4a

Align rod holes with bottom latch (round DIM A to nearest value shown)	
DIM A (device \mathcal{C} at distance from floor)	Bottom Rod p/n: 105098 use HOLE
38"	V
39"	W
40"	X
40-3/8"	Y
40-3/4"	Z



BOTTOM ROD
P/N 105098

Note: If hole V or W is used (or if new hole is drilled closer to threaded end), trim off UNTHREADED end of rod as needed to allow rod to slide into bottom bolt far enough to pin.

4b. Place bottom rod 105098 into bolt, line up holes and secure with spring pin provided.

4c. DIM C is the target length.

For no threshold or threshold 1/2" or less:

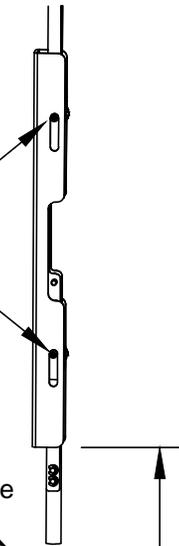
DIM C = measured DIM A minus 8".

For threshold greater than 1/2":

DIM C = measured DIM A minus 8" minus threshold height

NOTE:

SLOTS MUST BE IN POSITION SHOWN (SCREWS AT THE TOP) DURING ADJUSTMENT

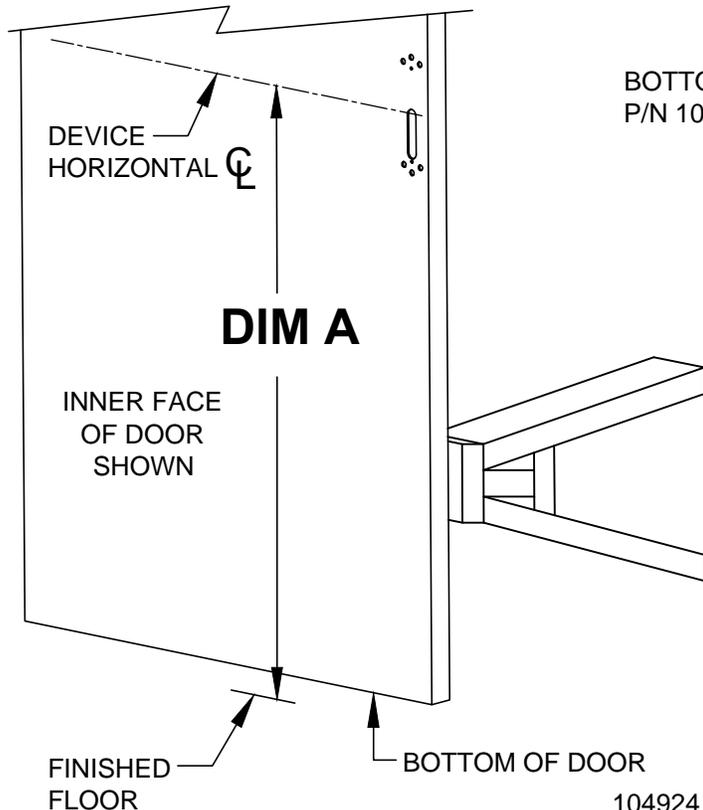


The bottom bolt vertical travel from fully extended to fully retracted is approximately 9/16".

4d. Thread bottom rod into centerlift mechanism to achieve DIM C (within 1/16").

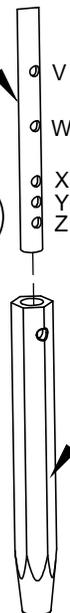
4d

ADJUST length here 1/2" MINIMUM thread engagement required



BOTTOM ROD
P/N 105098

4b

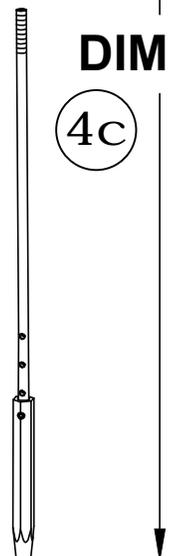


SPRING PIN
P/N 101607

BOTTOM BOLT
P/N 103536-1

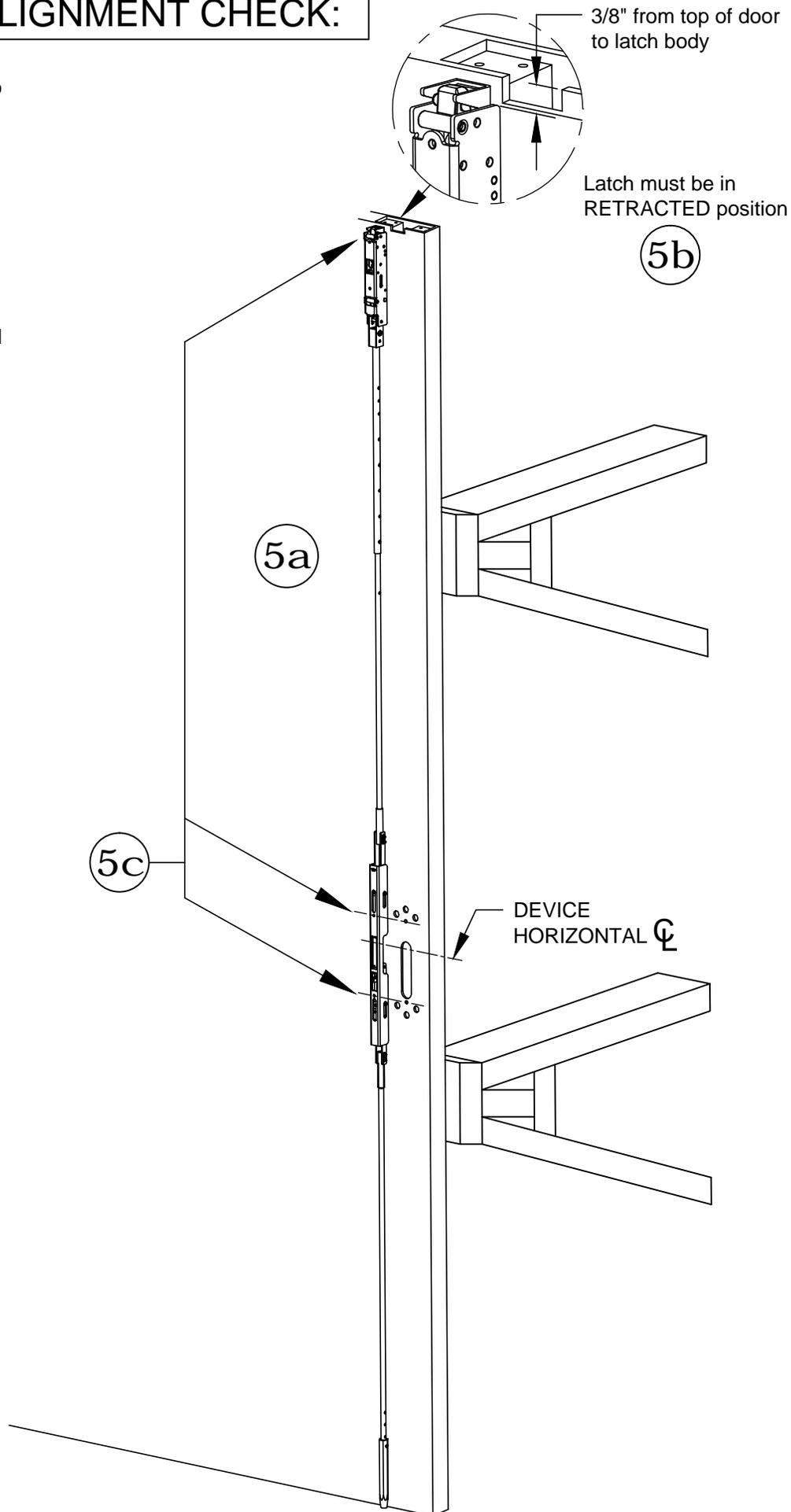
DIM C

4c



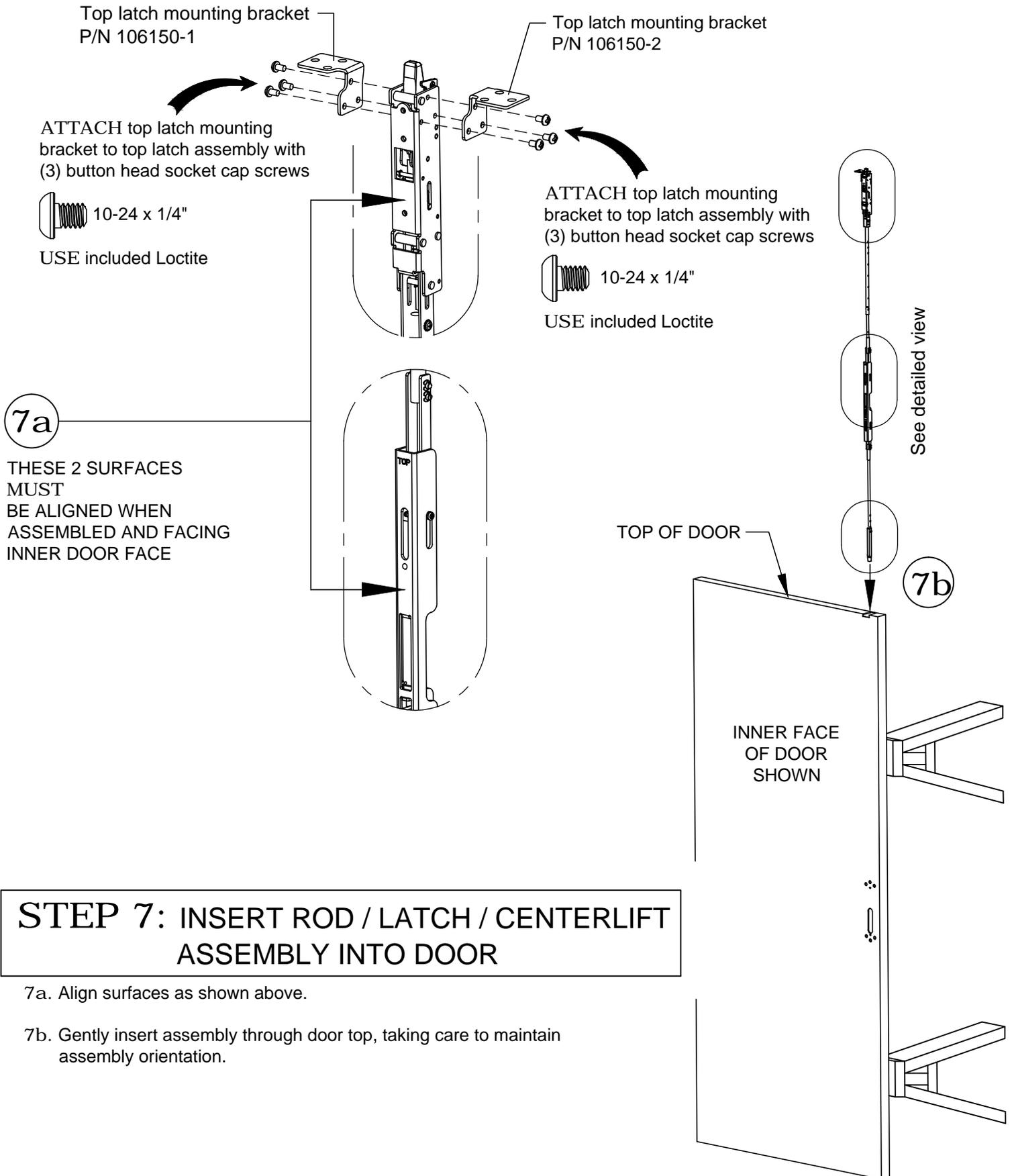
STEP 5: VISUAL ALIGNMENT CHECK:

- 5a. Lay internal latch components onto door for trial fit. Take care to protect door finish.
- 5b. Ensure top latch is in retracted position. Hold top rod in place and push top latch case towards device \odot until latchbolt is fully retracted.
- 5c. Mounting holes for centerlift should line up with mounting holes in door, and top and bottom latches should be in position shown. If not, go back to steps 3 & 4 and verify rod length dimensions.



STEP 6: ATTACH TOP LATCH MOUNTING BRACKETS

6 ATTACH top latch mounting brackets as shown below. Three screws required for each bracket.



STEP 7: INSERT ROD / LATCH / CENTERLIFT ASSEMBLY INTO DOOR

7a. Align surfaces as shown above.

7b. Gently insert assembly through door top, taking care to maintain assembly orientation.

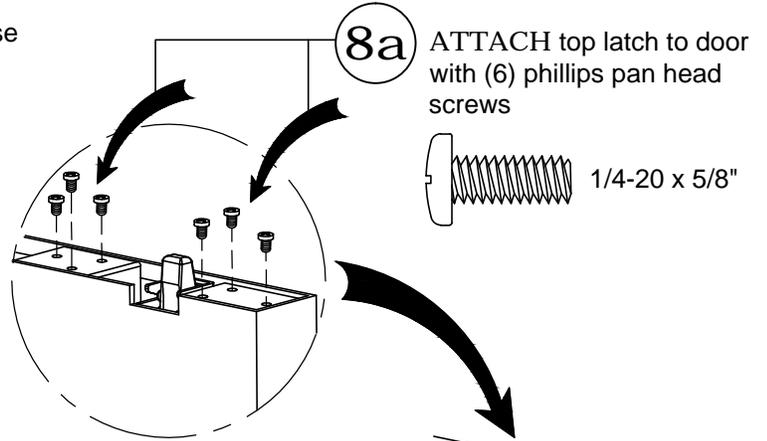
STEP 8: SECURE ROD / LATCH / CENTERLIFT ASSEMBLY TO DOOR

8a. Attach top latch to door with six screws.

8b. Attach bottom bolt mounting brackets to bottom bolt case with six screws.

8c. Attach bottom bolt mounting brackets to door with six screws.

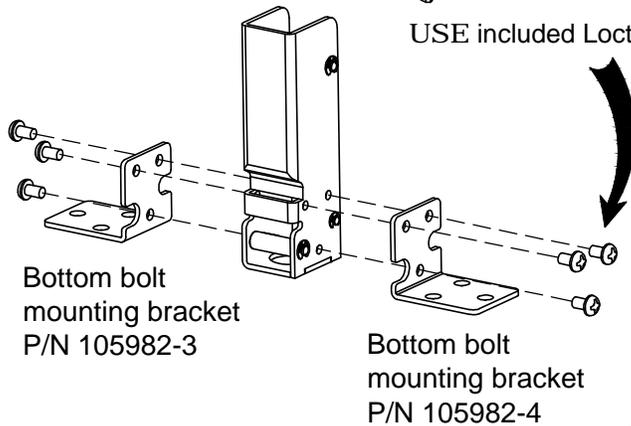
8d. Attach back plate to centerlift mechanism with two screws - DO NOT OVERTIGHTEN.
 Assembly hint: Assemble one screw loosely without backplate, then add second screw through backplate. Remove first screw, align backplate and then re-install first screw.



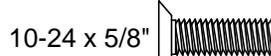
8b ATTACH bottom bolt mounting brackets to bottom bolt case assembly with (6) button head socket cap screws



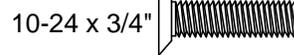
USE included Loctite



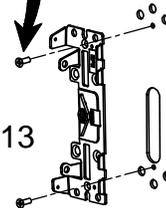
8d ATTACH backplate to centerlift mechanism with (2) phillips flat head screws



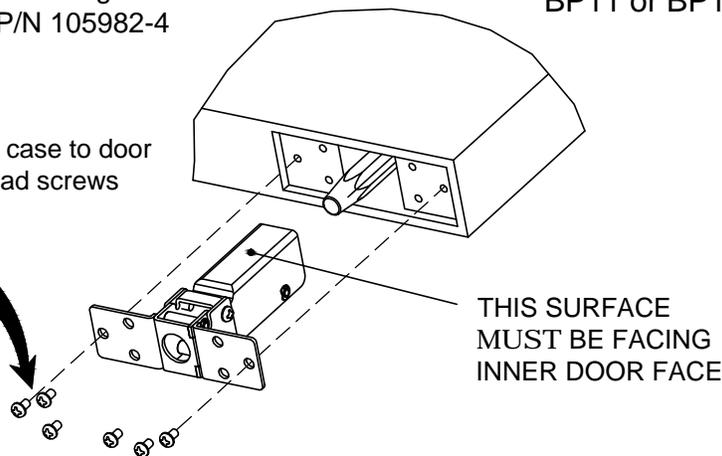
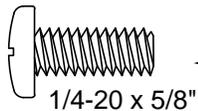
OR



Backplate BP11 or BP13



8c ATTACH bottom bolt case to door with (6) phillips pan head screws

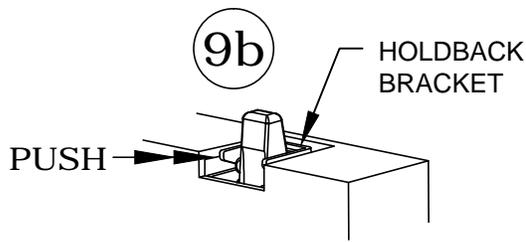


(VIEWED FROM BOTTOM EDGE OF DOOR)

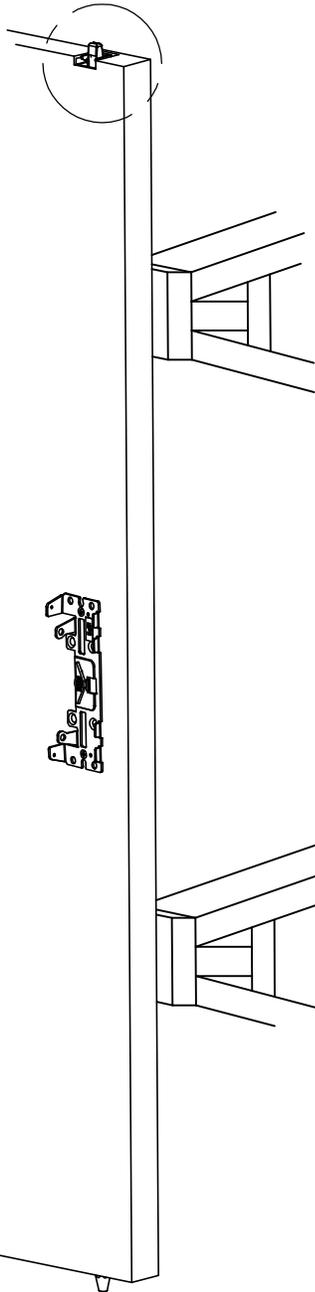
Note: Bottom bracket may slide up on rod during assembly.

It may be necessary to pull it towards bottom edge of door with a simple wire hook.

STEP 9: VERIFY CENTERLIFT MECHANISM OPERATION



With latch bolt extended, top adjustment screw should be exposed. If not, go back to STEP 3 and make top rod longer.



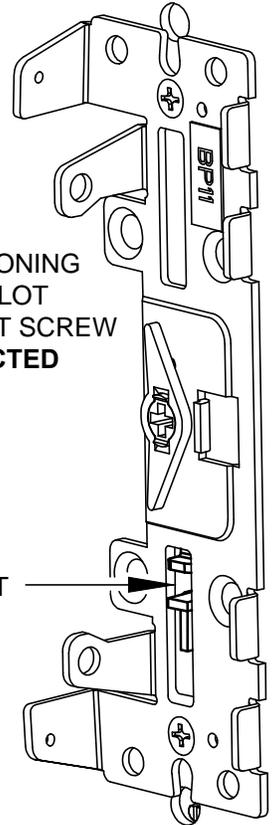
9c
CORRECT POSITIONING OF ACTIVATION SLOT AND ADJUSTMENT SCREW IN LATCH **EXTENDED** POSITION

9a
ACTIVATION SLOT LATCH **EXTENDED** POSITION



9c
CORRECT POSITIONING OF ACTIVATION SLOT AND ADJUSTMENT SCREW IN LATCH **RETRACTED** POSITION

9a
ACTIVATION SLOT LATCH **RETRACTED** POSITION



9a. Check current centerlift position using views shown.

9b. To extend latches, push and hold down on the holdback bracket to disengage the retraction feature, then use a screwdriver inserted into the activation slot to gently lower the slot to the extended position as shown.

9c. To retract latches, gently insert a screwdriver into the activation slot and raise the slot to the retracted position as shown.

TROUBLESHOOTING:

If latchbolt is fully extended while activation slot is not fully in the extended position, **then top rod is too short**. Go back to STEP 3 and correct.

If latchbolt is partially retracted while activation slot is fully in the extended position, **then top rod is too long**. In this case, latchbolt will be fully retracted before activation slot can travel fully to the retracted position. Go back to STEP 3 and correct.

9d. **Bottom bolt drag check:**

With top latch in retracted position, check to ensure that bottom bolt is not extending from bottom of door a distance greater than the bottom gap at finished floor (minus the threshold height if threshold is used).

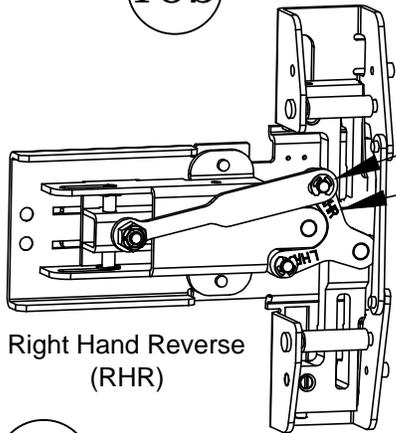
If it is, **then bottom rod is too long**. Go back to STEP 4 and correct.

9e. Upon completion, retract latches before proceeding to Step 10.

STEP 10: HANG DOOR / ASSEMBLE DEVICE TO DOOR

10a INSTALL DOOR ONTO FRAME PER MANUFACTURER'S SPECIFICATIONS

10b Rehandling procedure if required

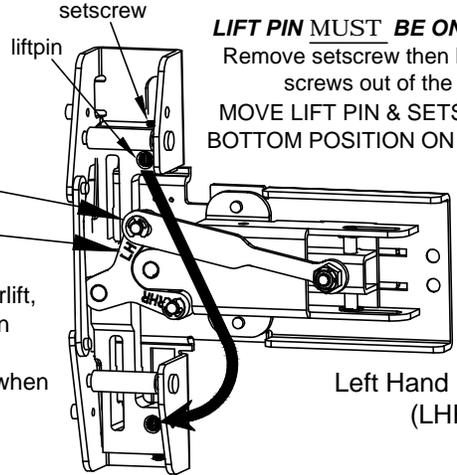


Right Hand Reverse (RHR)

NOTE: LINK MUST ALWAYS BE IN TOP POSITION

HANDING INDICATOR ON CENTERLIFT

If link is not in uppermost position on the centerlift, carefully remove "E" clips and reposition link on top pin of the centerlift and replace "E" clips. Verify carriage moves up and down smoothly when pushpad is depressed and released.

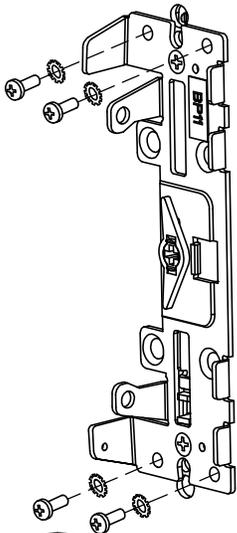


LIFT PIN MUST BE ON BOTTOM
Remove setscrew then liftpin which screws out of the back.
MOVE LIFT PIN & SETSCREW TO BOTTOM POSITION ON CARRIAGE.

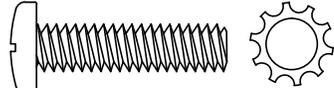
Left Hand Reverse (LHR)

10a REFER TO TRIM INSTRUCTIONS AT THIS TIME, IF APPLICABLE

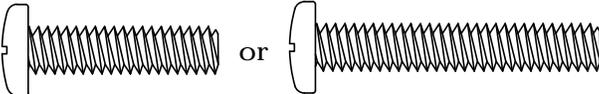
10d COMPLETE BACKPLATE MOUNTING
INSTALL **backplate** with (4) lockwashers & screws **OR** screws & sexnuts



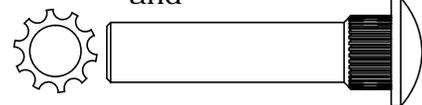
Drill #7 or 13/64" for threaded hole



OR *If using sexnuts, install here.

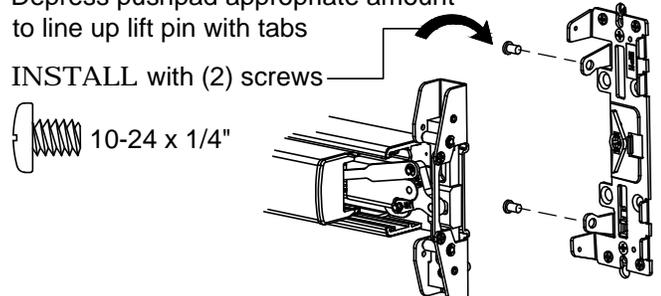


and



Drill exterior door face 1/2" (With Trim) or 3/8" (Without Trim).
Drill interior door face 9/32".

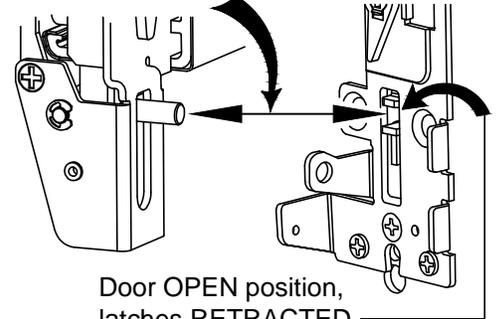
10e INSTALL DEVICE TO BACKPLATE
Install device to backplate & fasten with 2 screws. Depress pushpad appropriate amount to line up lift pin with tabs



INSTALL with (2) screws

10-24 x 1/4"

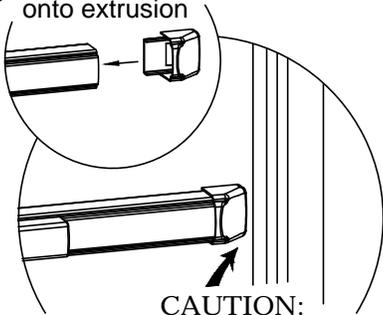
Lift pin protruding from back of centercase **MUST** be inserted **BETWEEN** these two tabs.



Door OPEN position, latches RETRACTED

10f CHECKING FOR DEVICE CLEARANCE
(Cut-Off procedure if required)

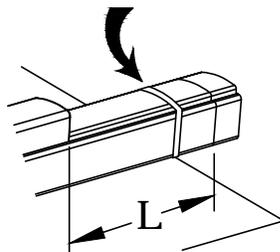
1 SLIDE endcap assembly onto extrusion



CAUTION:

Check for device and door frame clearance. If no cut-off needed, proceed to the next page.

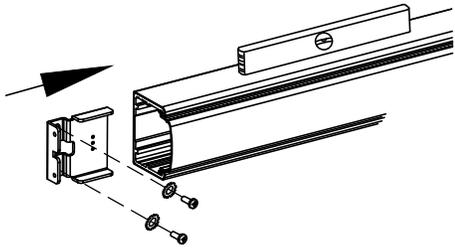
2 CUT fillerplate and extrusion STRAIGHT & SQUARE to desired length and deburr. SECURE with tape before cutting.



Minimum Fillerplate Length	
Type	Length (L)
LD	2-1/2"
HD/CD	3"

For aluminum Advantex finish cutdown applications: After cutting, the baseplate extrusion can be reversed to place the cut end inside the head cover. To do so, loosen the setscrew inside the aluminum baseplate extrusion and slide extrusion out, reverse, & slide back in. Tighten setscrew.

10g INSTALL ENDCAP BRACKET



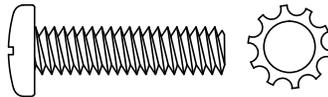
INSTALL **bracket**
with (2) lockwashers & screws
OR screws & sex bolts

LEVEL device before installing endcap bracket

ENSURE that device does not require cutting (See Step 10f on previous page).

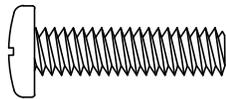
TEST device function after installation of endcap is complete by depressing & releasing pushpad. Action should be smooth with full return of pushpad and latch travel.

Drill #7 or 13/64" for threaded hole

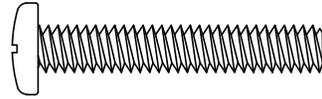


OR *If using sexnuts, install here.

Drill 9/32 interior door face



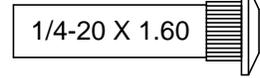
or



and



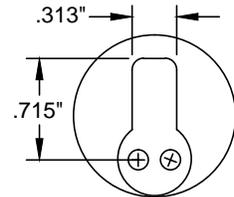
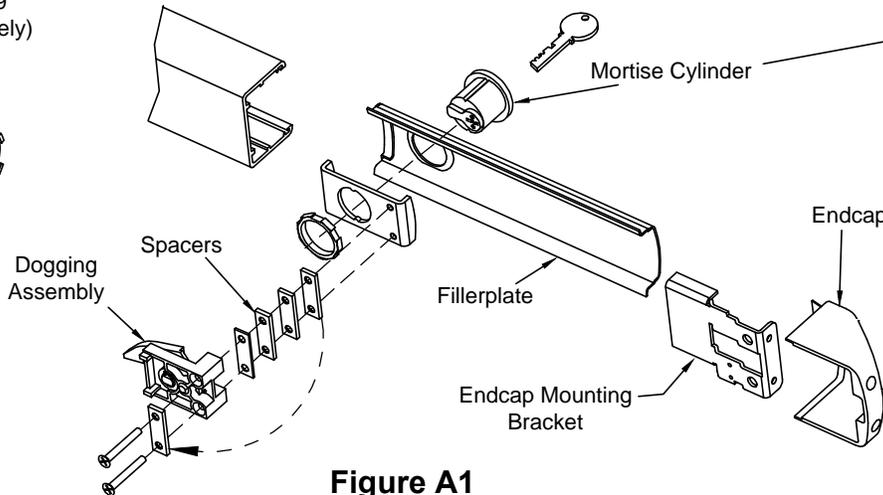
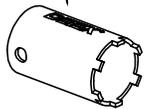
Drill exterior door face 1/2" (With Trim)
or 3/8" (Without Trim).



10h MORTISE CYLINDER INSTALLATION

CD (Cylinder Dogging) Cylinder Installation

Cylinder nut socket
p/n 103779
(sold separately)



Mortise Cylinder with
standard Yale cam
required

Figure A1

Follow steps "a" through "g" for CD installations

- a. Remove endcap and endcap mounting bracket.
- b. Remove fillerplate.
- c. Remove and discard shipping insert and nut. Loosen (2) screws from dogging assembly.
- d. Install mortise cylinder (sold separately) with large hex nut provided.
- e. Trial fit dogging assembly. If cylinder is too short, remove spacers as necessary and reattach them under the (2) screw heads. Fasten the (2) screws to the rest of the assembly.

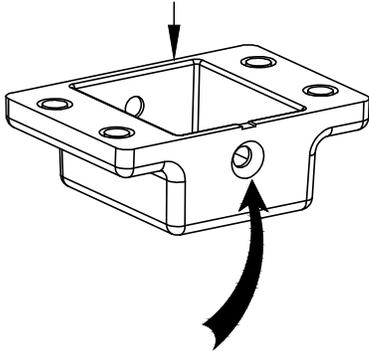
NOTE: The key should easily turn in both directions.

- f. Rotate key counterclockwise
- g. Assembly complete. Continue with Panic Hardware instruction.

STEP 11: TOP STRIKE INSTALLATION

11a STRIKE ORIENTATION

Top strike pocket

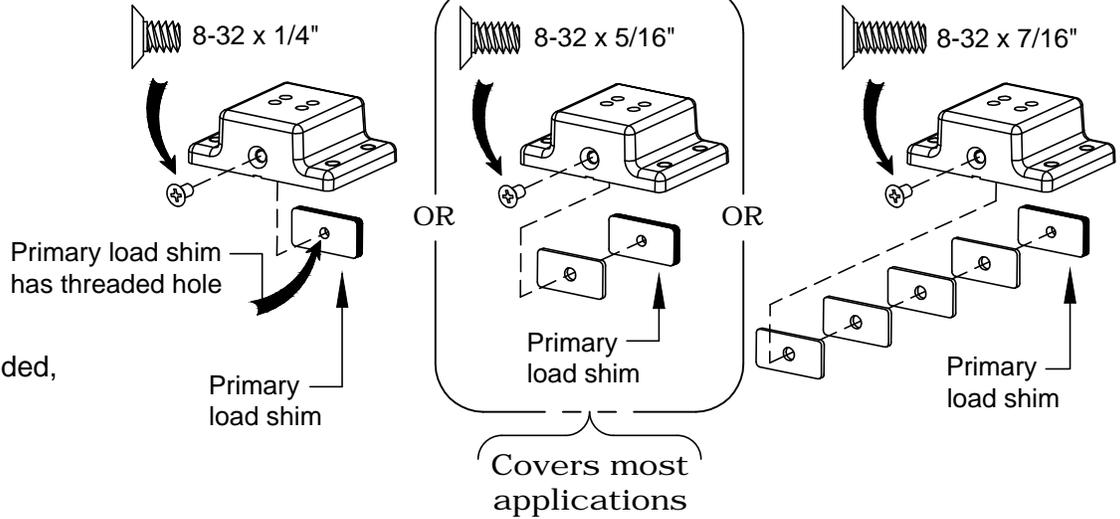


Begin strike installation with notched side of pocket towards inside door face. If additional adjustment is needed, rotate pocket 180°

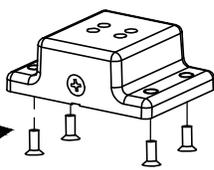
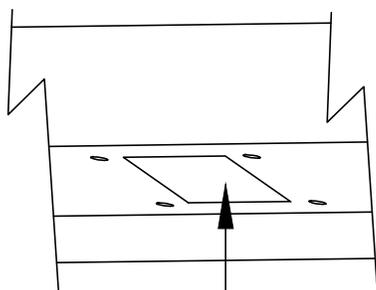
11b INSTALL LOAD SHIMS

Load Shims are used to maximize device strength. Utilize to fill-in gap between strike insert and strike pocket wall. **Primary shim should always be used.**

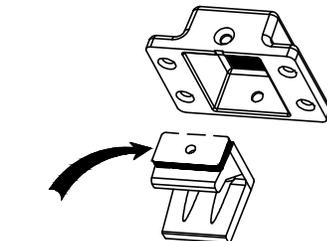
Screw used with shims	Supplemental Load Shim QTY
8-32 x 1/4"	0 shims
8-32 x 5/16"	1 or 2 shims
8-32 x 7/16"	3 or 4 shims



11c INSTALL TOP STRIKE POCKET

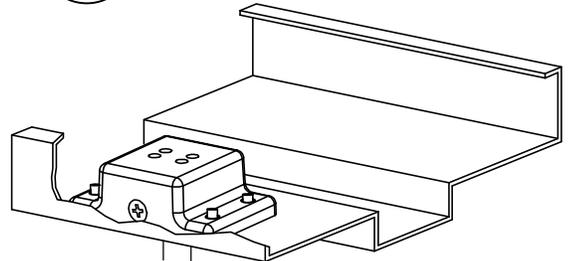


INSTALL top strike pocket with (4) socket cap flat head screws



Note: Load shims must be installed **BETWEEN** inside wall of top strike pocket & wall of strike insert as shown.

11d INSTALL STRIKE INSERT



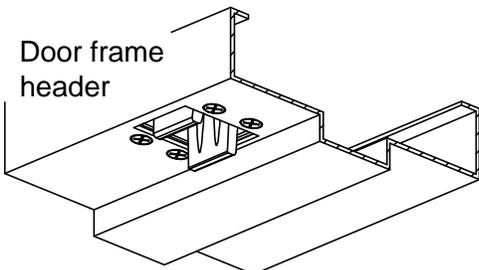
Height Shims
Use as needed

Strike insert

INSTALL strike insert with (2) socket cap flat head screws



11e FINISHED STRIKE INSTALLATION VIEW

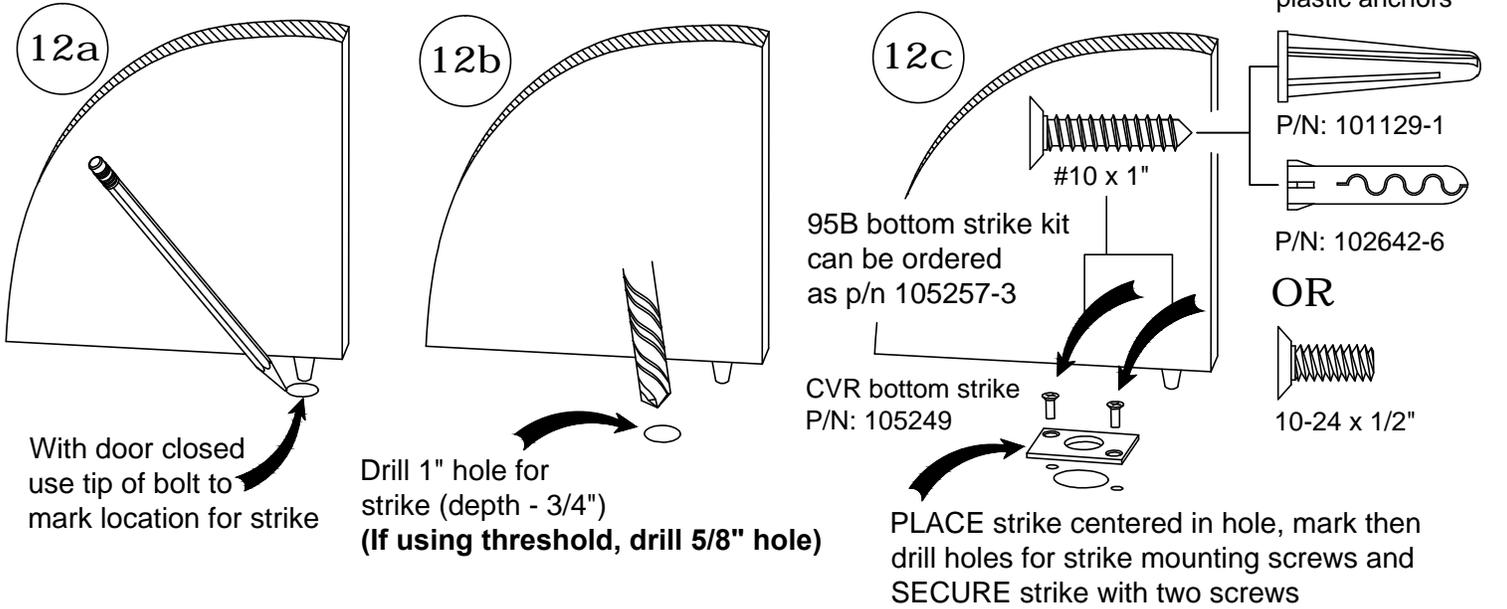


Verify device / strike fit.
Adjust the strike insert, load shims, and height shims as needed

Note:
Strike pocket must be removed from header in order to adjust load shims.

STEP 12: BOTTOM STRIKE INSTALLATION

BOTTOM STRIKE HOLE LOCATION & DRILLING



STEP 13: FINE LATCH ADJUSTMENT

13a. Ensure that latches are fully retracted. Gently close door. Latches should extend when door is closed.

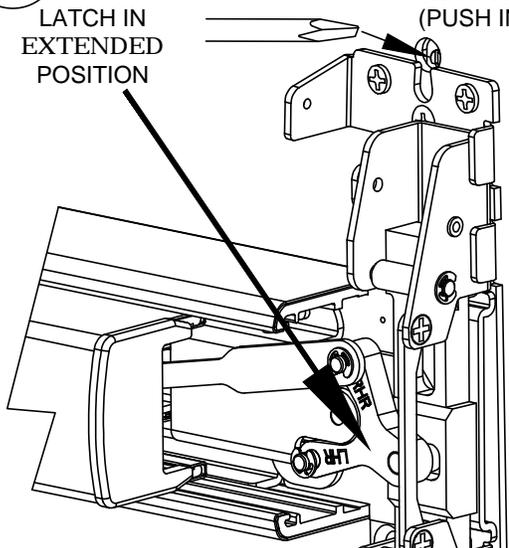
13b. Depress pushpad and open door. Top latch should clear top strike & bottom bolt should not drag. Latches should remain in retracted position with pushpad released.

FINE LATCH ADJUSTMENT (if needed) ($\pm 3/8"$ adjustment possible on both top & bottom rods independently. See diagram below.)

13c. Top strike fine adjustment: Adjust strike engagement by either retaining or removing shim. Adjust door tightness by moving insert to desired position. Note that strike pocket can be flipped around to achieve additional adjustment (see step 11).

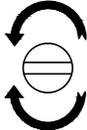
13d. **TOP LATCH ADJUSTMENT:** With latches extended, turn CCW until the top latchbolt projection begins to visually decrease, then turn CW until latchbolt projects fully. Rotate CW one additional full turn.

13d Top Adjustment



TOP ADJUSTMENT SCREW EXPOSED
ADJUST with flat blade screwdriver (PUSH IN & TURN)

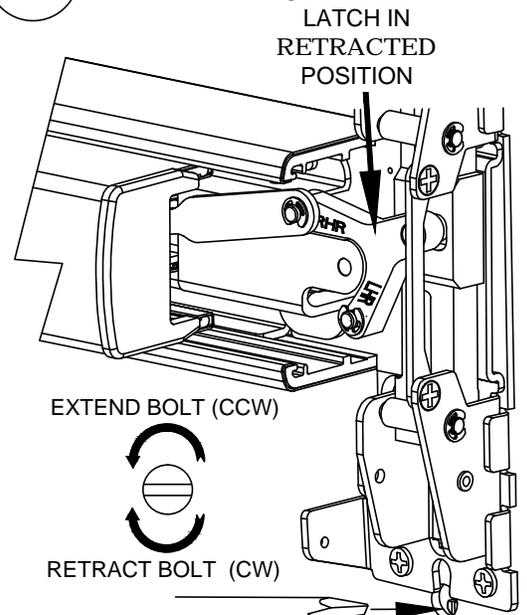
RETRACT BOLT (CCW)



EXTEND BOLT (CW)

CAUTION:
If turned too far CW, you will lose sight of adjustment screw

13e Bottom Adjustment



13e. **BOTTOM LATCH ADJUSTMENT:** With pushpad depressed (retracted position), extend or retract bottom bolt to desired engagement and clearance.

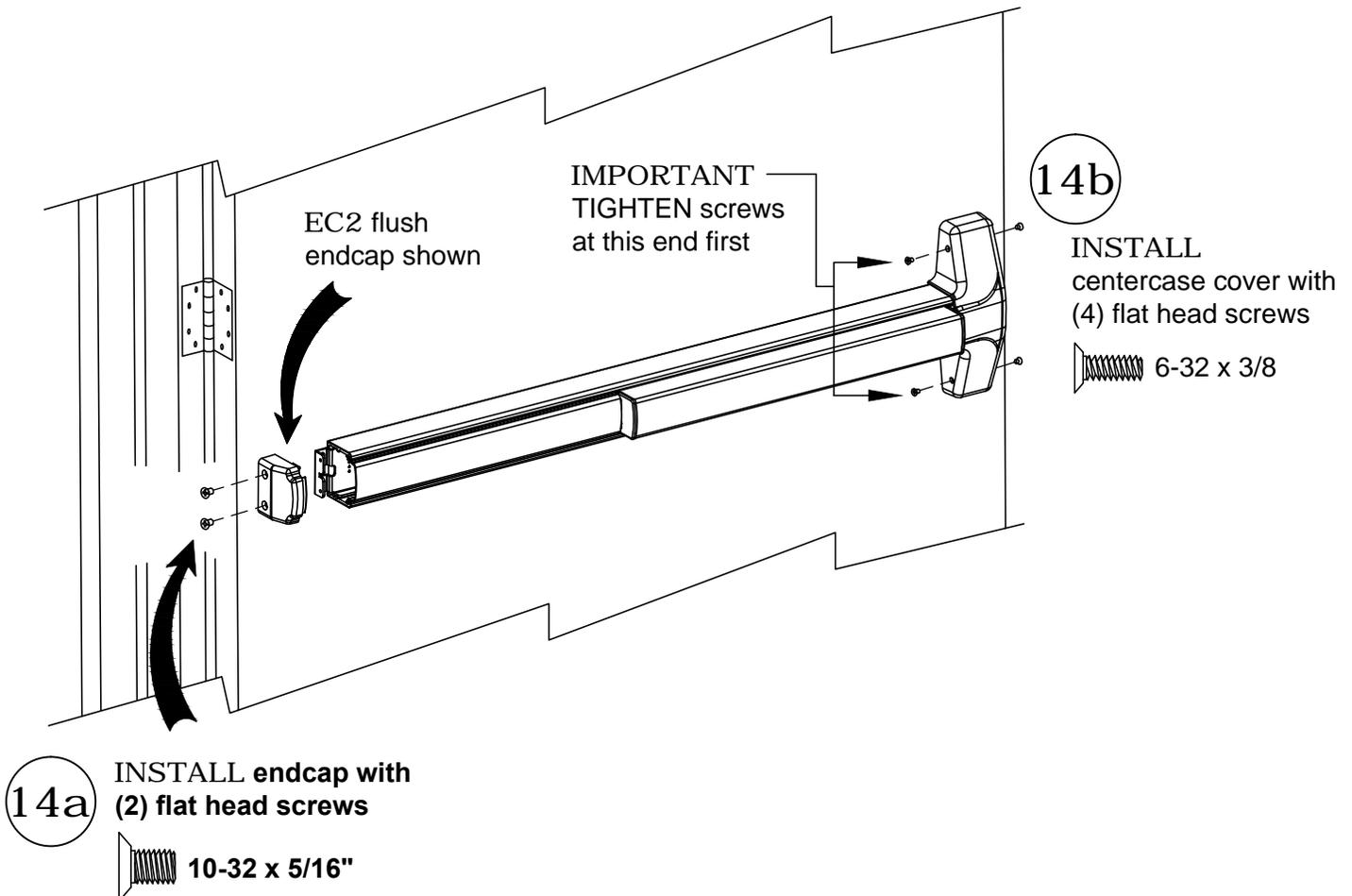
13f. Check device operation (See Device Operation Troubleshooting table).
Reference STEP 13a & 13b.

BOTTOM ADJUSTMENT SCREW EXPOSED
ADJUST with flat blade screwdriver (PUSH IN AND TURN)

DEVICE OPERATION TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Device not latching when door closes	Bottom bolt is not properly aligned with bottom strike hole.	Modify bottom strike hole for fit.
	Top strike insert is not installed or not correctly aligned with the holdback.	Install and/or position strike insert per instructions.
	Through fasteners for trim (if applicable) are interfering with internal centerlift assembly.	Loosen and re-position through screws to clear.
	Rods improperly adjusted	Adjust rods per instructions. Remove device and re-install per instructions.
Latches release, but pushpad will not fully depress	Device centercase lift finger not inserted properly into centerlift assembly.	Remove device from backplate and re-install with lift finger correctly inserted.
	Top adjustment screw is adjusted too far in the retracted direction (CCW).	Rotate top adjustment screw in the extended direction (CW) per FINE LATCH ADJUSTMENT procedure.
Latches are not releasing when pushpad is fully depressed	Device centercase lift finger not inserted properly into centerlift assembly.	Remove device from backplate and re-install with lift finger correctly inserted.
	Top adjustment screw is adjusted too far in the extended direction (CW).	Rotate top adjustment screw in the retracted direction (CCW) per FINE LATCH ADJUSTMENT procedure.
	Bottom adjustment screw is adjusted too far in the extended direction (CCW).	Rotate bottom adjustment screw in the retracted direction (CW) per FINE LATCH ADJUSTMENT procedure.

STEP 14: COVER INSTALLATIONS



Optional Accessories

Sex Nut Kits

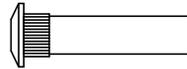
The #1/4-20 kits are available in 3 finishes:

Brushed Brass BHMA 606: 105274-2

Oil Rubbed Bronze BHMA 613: 105274-25

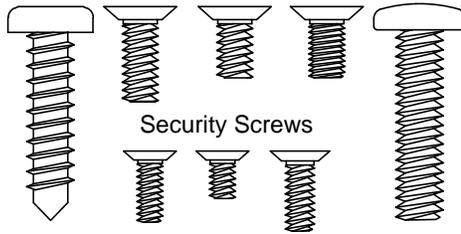
Stainless Steel BHMA 630: 105274-9

Catalog No: **SN3** uses screws in hardware kit

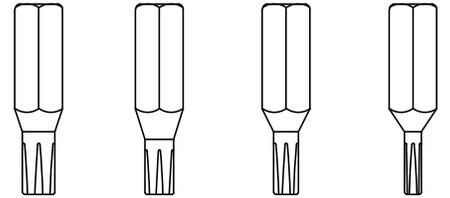


Tamper Kit (Security Kit)

Catalog # & Part #:
SSK5



Security Screws



Security Pin TORX® Bits provided

Cylinder nut socket p/n: 103779

