



**Series 3100
Mid Rail Vertical Rod
Exit Devices**

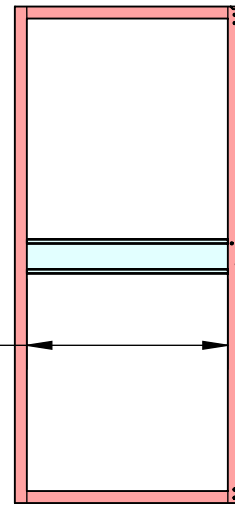
Phone: (800) 793-4544

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** Before Install, prepare door frame per template on last page.*

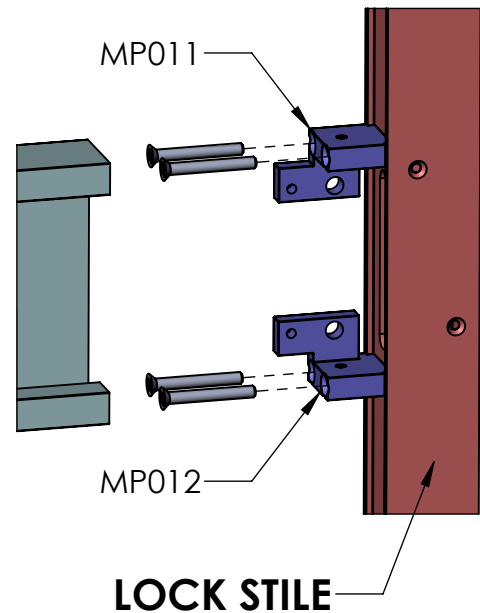
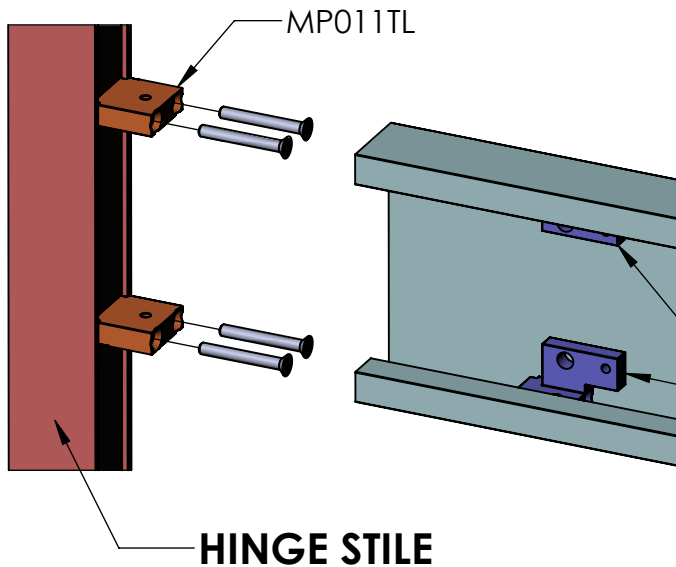
1. Muntin Channel Installation

1a. Cut MP010M Muntin Channel to fit width of interior dimension of door frame.



1b. Mount MP011 and MP012 Muntin Blocks onto **Lock Stile** using 2X 1/4-20 x 2" FHCS screws.

1c. Mount 2X MP011TL Muntin Blocks onto **Hinge Stile** using 2X 1/4-20 x 2" FHCS screws.



1d. Be sure to slide the floating Muntin Blocks into the Muntin (with both having the threaded hole facing the Lock Stile) **BEFORE** assembling the door.

1e. With the door frame loose/unassembled, position the MP010M Muntin Channel between the Stiles and slide it over the Muntin blocks. Finish the assembly of the door frame.

Set screws are provided to further tighten Muntin Channel to the Mounting Blocks, if needed. Use caution, do not over-tighten set screws.

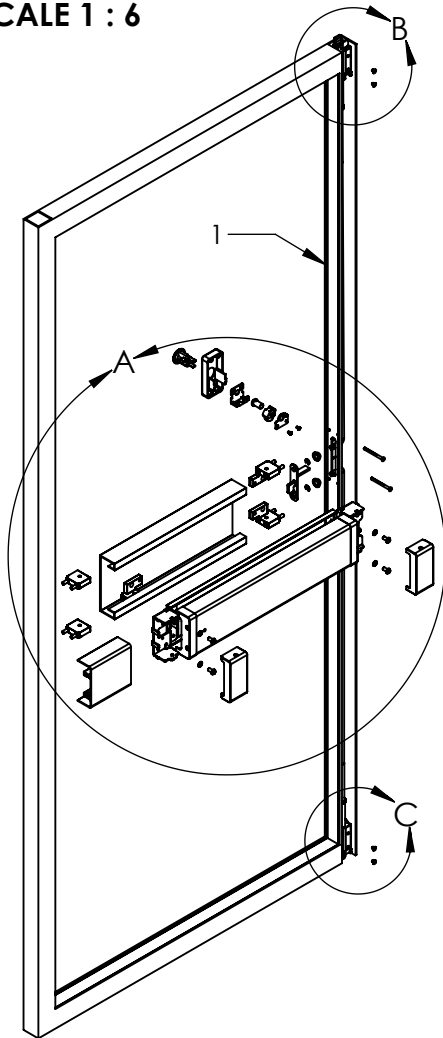
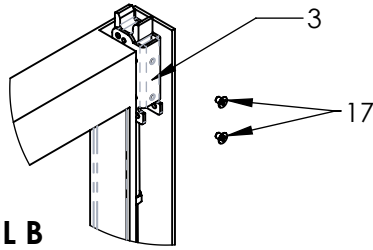
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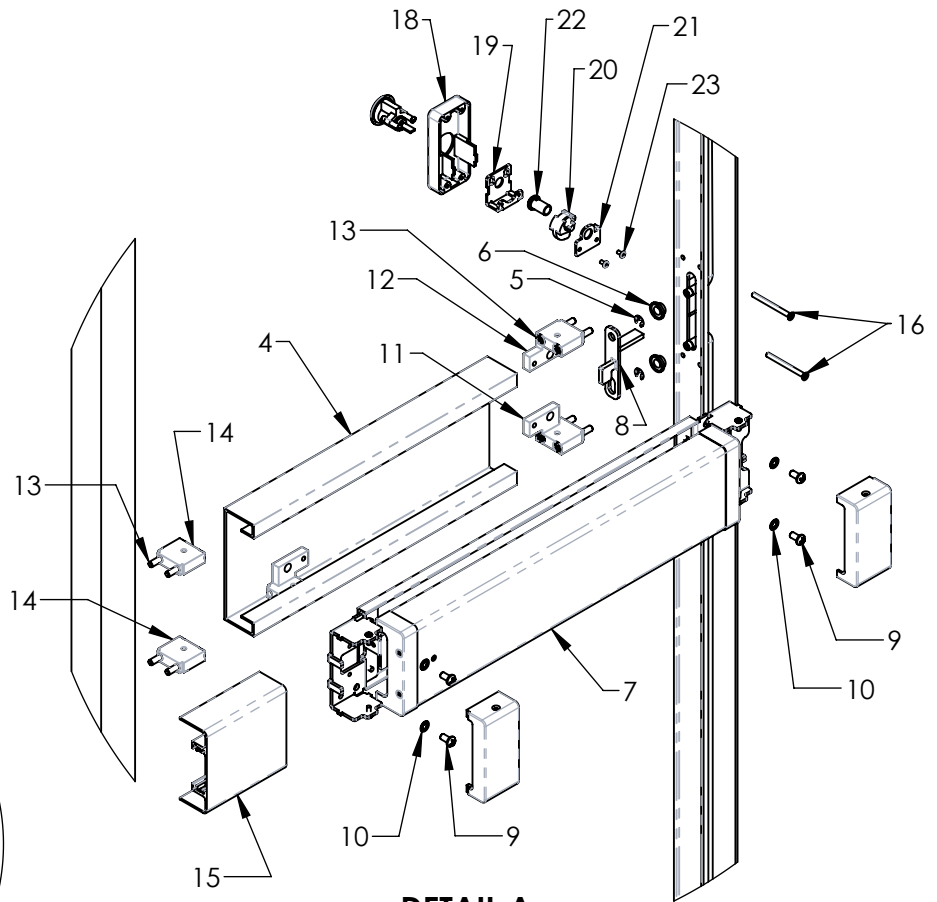
MID PANEL MOUNTING ASSEMBLY

MP050

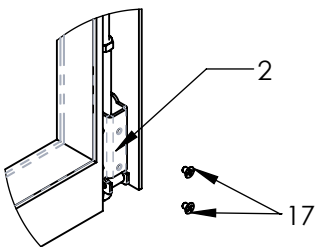
DETAIL B
SCALE 1 : 6



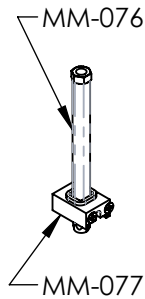
DETAIL A
SCALE 1 : 8



DETAIL C
SCALE 1 : 6



OR



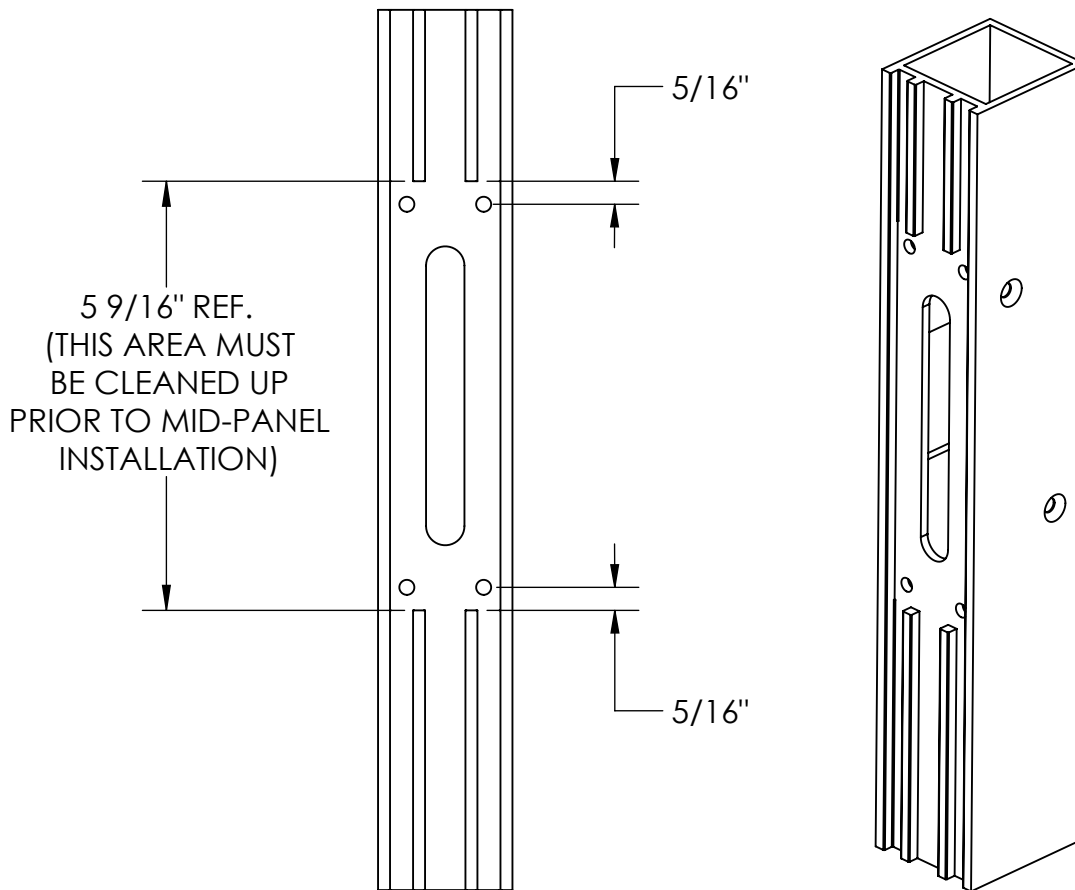
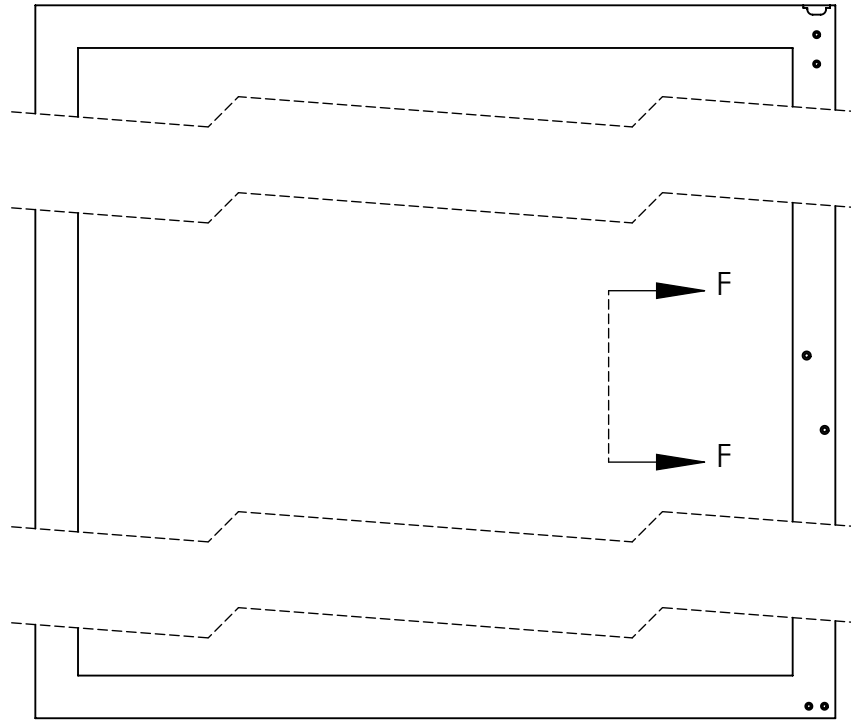
(HEX
BOTTOM
LATCH)

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	MP023	DOOR
2	1	MP033	BOTTOM ROD ASSEMBLY
3	1	MP032	TOP ROD ASSEMBLY
4	1	MP010-M	MUNTIN (MACHINED)
5	2	MM_809	C-RING
6	2	MM_810	BUSHING
7	1	MP051	EXIT DEVICE ASSY
8	1	MP019L	TRAVELER (LEFT HAND)
9	4	MM_801	1/4-20 X 1/2 BHCS
10	4	MM-878	1/4" INTERNAL-TOOTH WASHER
11	2	MP012	MUNTIN BLOCK 2
12	2	MP011	MUNTIN BLOCK 1
13	8	MM-875	1/4-20 X 2" FHCS
14	2	MP011TL	SPECIAL MUNTIN BLOCK
15	1	MP015-Filler	FILLER BAR
16	2	MM-873	#10-24 X 2 1/4" FHCS
17	4	MM_811	#10-32 x 1/4" FHCS
18	1	MP021	KEY CYLINDER COVER
19	1	MP022	KEY CYLINDER RETAINER
20	1	MP025X	KEY CYL. DOGGING CAM
21	1	MP024L	CAM SUPPORT PLATE (LH)
22	1	MP026	KEY CYLINDER ACTUATOR
23	2	MM-879	#6-32 X .25 BUTTON HEAD

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MP023 DOOR FRAME MACHINING NOTE



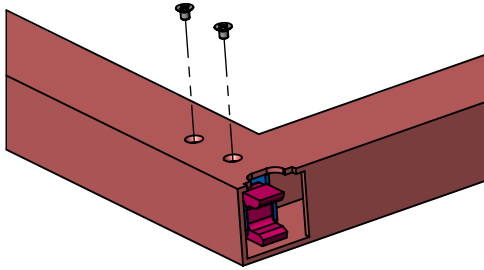
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VIEW F-F

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2. Vertical Rod Latches Installation

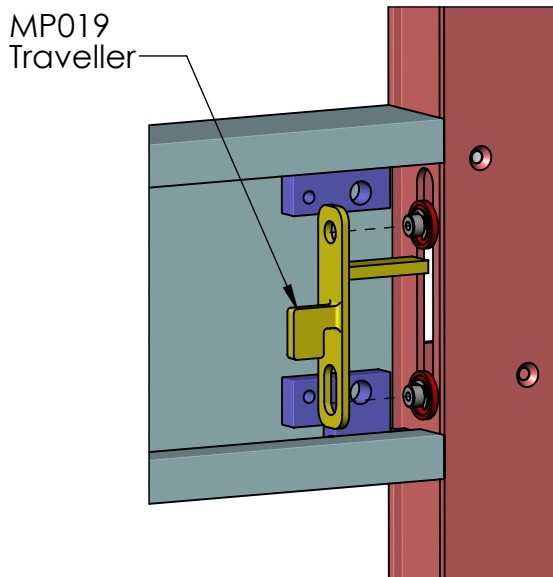
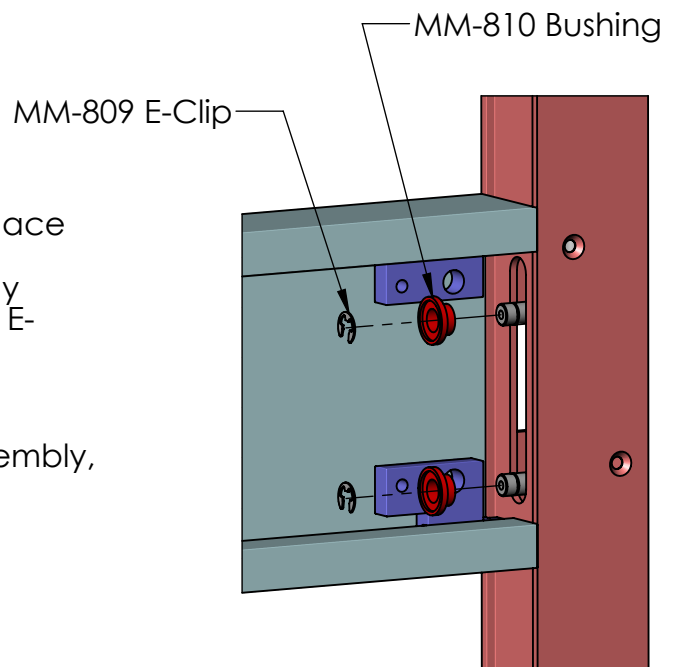
(Rods are factory preset for door height of 83 3/16" and a cylinder location of 41 5/16")



2a. Insert MP032 Top Latch Assembly into the Lock Stile, locating bent end of the rod thru slot in Stile. Secure using 2X #10-32 x 1/4" FHCS screws.

2b. With bent-end thru the slot, place MM-810 Plastic Bushing over rod (larger-diameter side facing away from Lock Stile) and affix MM-809 E-Clip to groove in rod.

2c. Install MP033 Bottom Rod Assembly, repeating the steps from above.

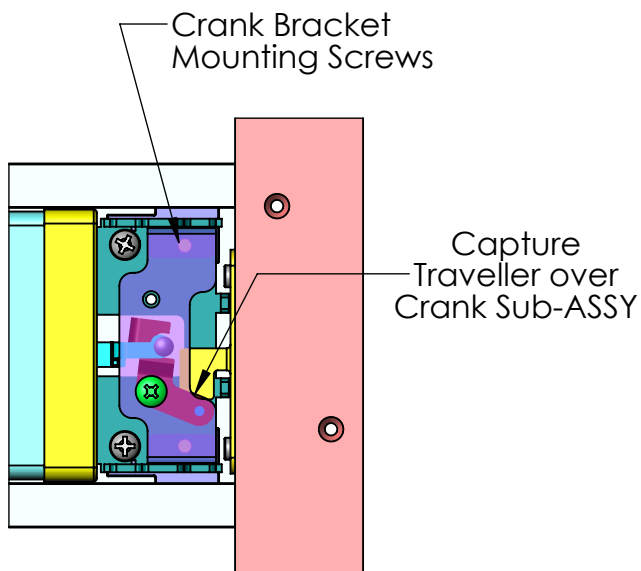
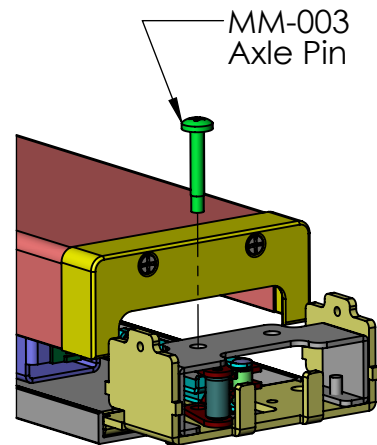
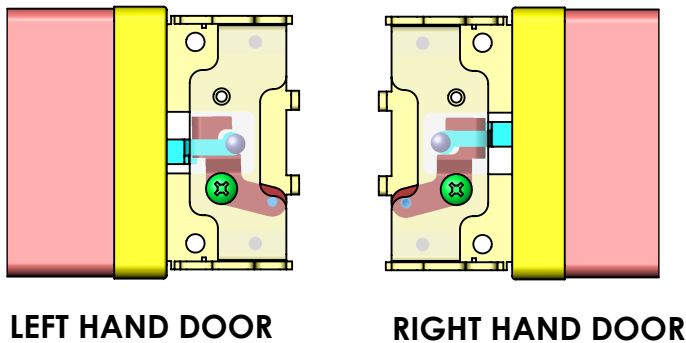


2d. Install appropriately handed MP019 Traveller over ends of vertical rods, with the slotted hole mating with Bottom Latch Rod.

Test the Traveller to make sure Bushings ride smoothly in the Slot, and that when lifted, the Top Latch trips.

3. Activating Device Installation

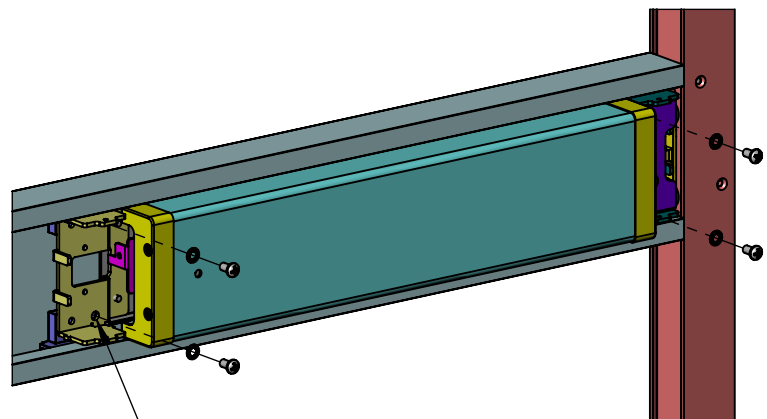
3a. Set the proper handing for the exit device. To change handing, remove MM-003 Axle Pin and flip Crank Sub-Assembly to opposite side.



3b. Insert the MP051 Activating Assembly, active side first, into Muntin Channel. Be sure to capture the Traveller over the Crank Sub-Assembly.

The Crank Bracket Mounting Screws should seat into clearance holes in Muntin Blocks, on the active side, to assure proper spacing.

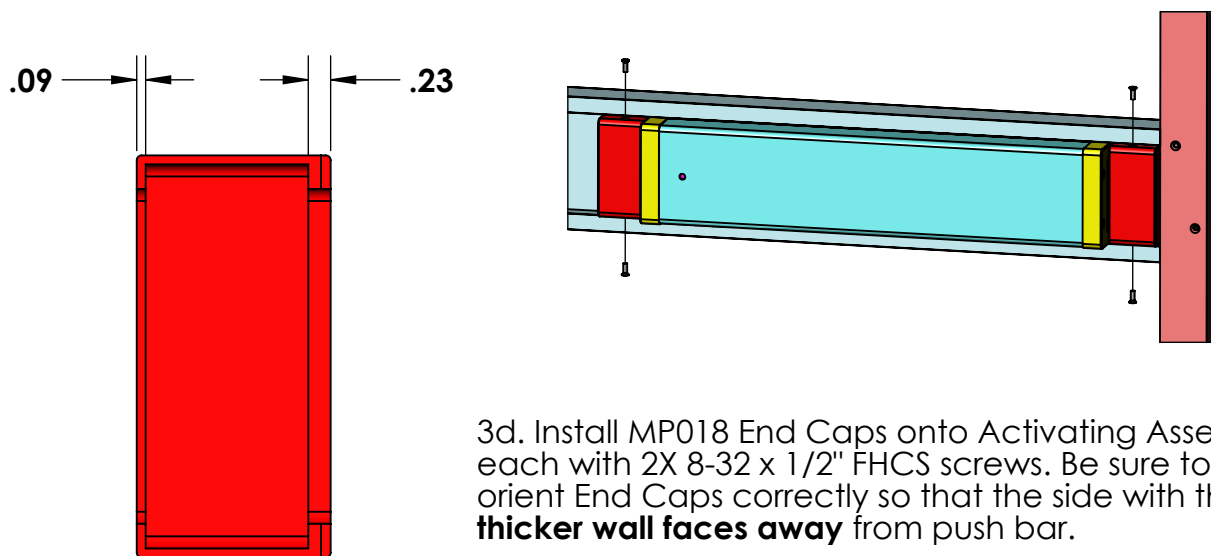
3c. Attach the Activating Assembly to the Muntin Blocks using 4X 1/4-20 x 1/2" BHCS screws and 4X Lock Washers.



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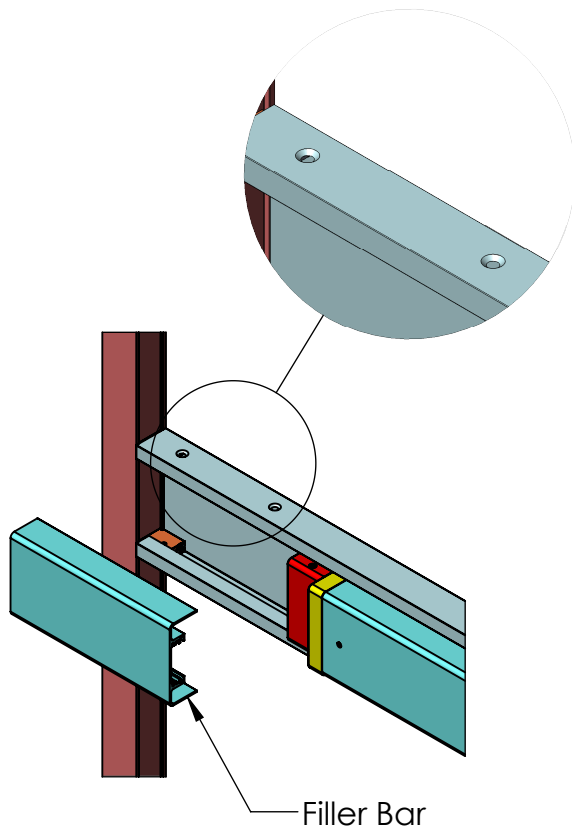
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Activating Device Installation (Cont'd.)



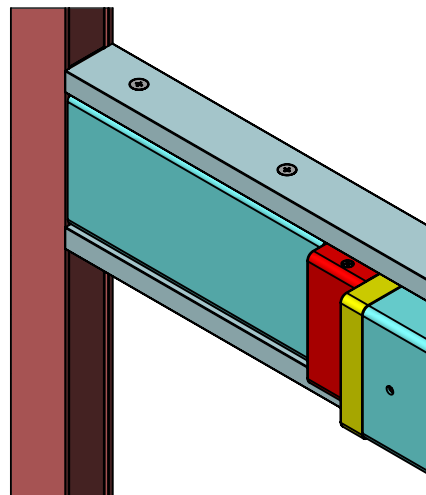
3d. Install MP018 End Caps onto Activating Assembly, each with 2X 8-32 x 1/2" FHCS screws. Be sure to orient End Caps correctly so that the side with the **thicker wall faces away** from push bar.

Note: The End Cap with the UL label should be placed on the Hinge-Stile side.



3e. Measure the distance between Hinge Stile and End Cap, and cut Filler Bar to fit into the space.

3f. Drill and C'Sink 4 holes into top and bottom of Muntin Channel. Use 4X Self-Drilling/Self-Tapping screws to secure Filler Bar in place.



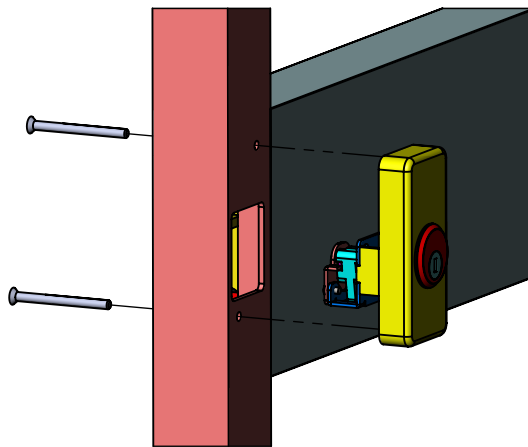
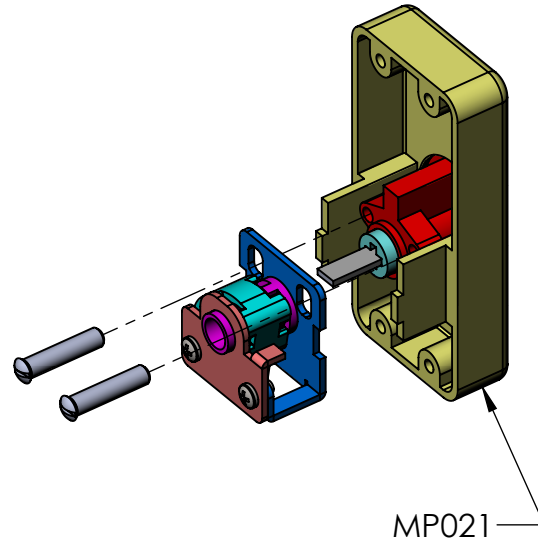
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4. Installing Devices With KEY CYLINDER

Prepare doors with cylinder holes per template on last page.

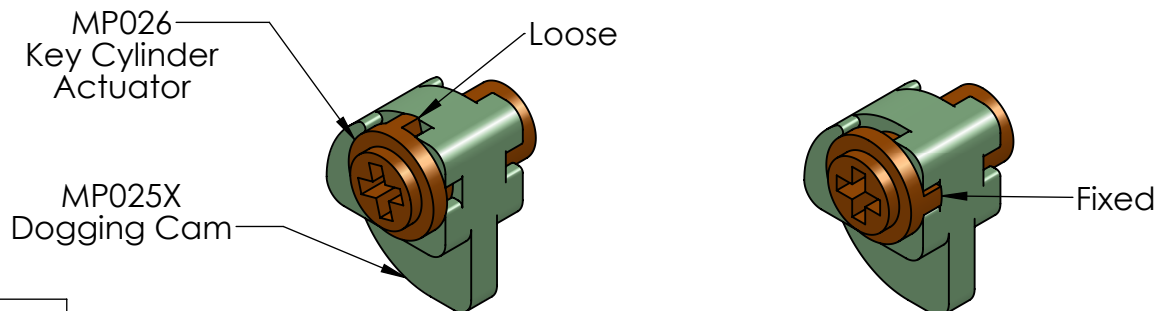
4a. Install key cylinder into the MP021 Cylinder Mounting Assembly using mounting screws supplied with the cylinder. (The screws may need to be shortened.)



4b. Mount MP021 Cylinder Assembly to Lock Stile using 2x 10-24 x 2 1/4" FHCS screws. Check key cylinder for proper functionality.

Setting Night Latch or Hold Back Function:

Isolate MP025X Dogging Cam and MP026 Key Cylinder Actuator, as shown below. Position notch on the Actuator for desired function. (Left-Hand Configurations Shown.)



(SETTING FOR **NIGHT LATCH**)

(SETTING FOR **HOLD BACK**)

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CHECK ROD OPERATION

TOP LATCH



BOTTOM LATCH



After **Dogging** the device:

When tripped by hand, the **Top Latch** should swing freely through its travel.

If not completely free, lengthen the Top Rod by loosening the Jamb Nut and rotating the Rod counter-clockwise.

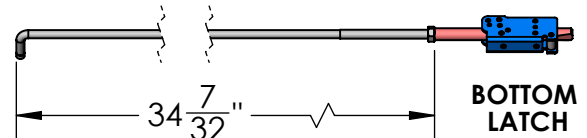
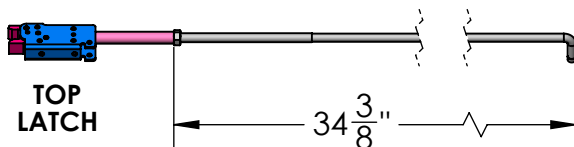
The **Bottom Latch** should protrude 1/16" or less beyond the bottom of the door.

To shorten the Bottom Rod, loosen the Jamb Nut and rotate the Rod clockwise.

After **Un-dogging** the device:

The Top Latch should **not** trip when operated by hand. If hand pressure can trip the Latch, shorten the Rod by loosening the Jamb Nut and rotating the Rod clockwise.

NOTE-The Bottom Rod may require adjustment to accommodate changes to the Top Rod.



The Top Rod is factory-set to **$34\text{-}3/8$ "**, measured from the bent end to the latch side of the Jamb Nut.

The Bottom Rod is factory-set to **$34\text{-}7/32$ "**, measured from the bent end to the latch side of the Jamb Nut.

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MP023

ISSUE NO.	LOC.	CHANGE AND DATE
1	XX	ORIGINAL DRAWING 11/17/2002
2	A3	A. ADD DIM 1/2" 01/05/2003
3	A3	B. ADD "NEAR SIDE ONLY" 01/31/2003
4	D4 C4	C. WAS 3 7/32 D. WAS 1 5/64 04/06/2003
5	DMD	REV. & REDRAWN 04/25/2003
6	DMD	ADD SHEET 2 06/21/2003
7	DMD	REDIMENSIONED 08/21/2003
8	TAH	REDRAWN 4/26/2016

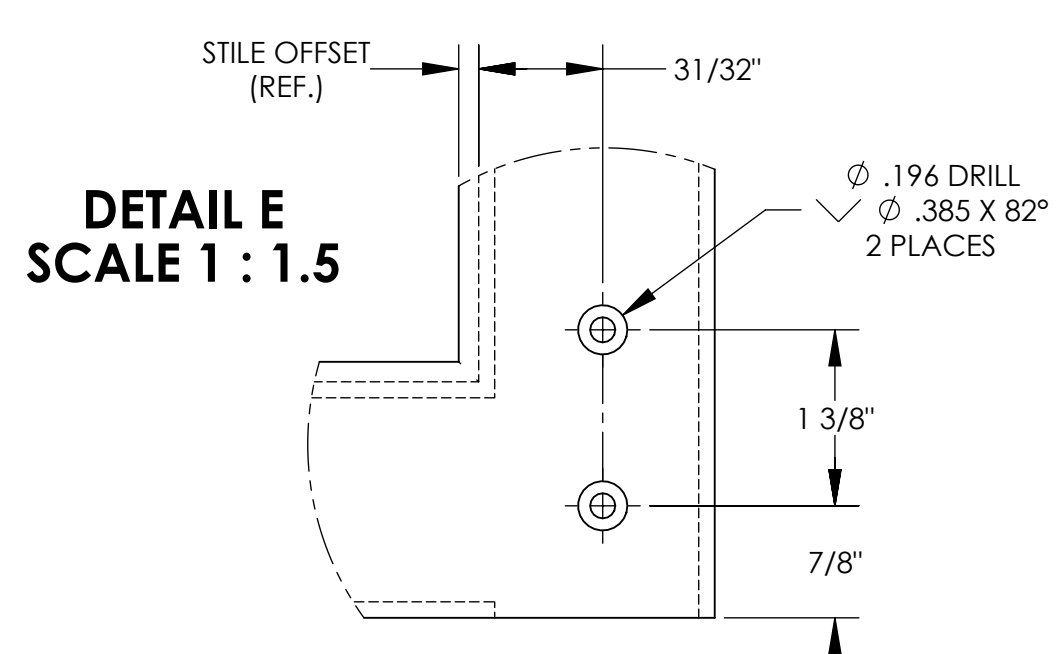
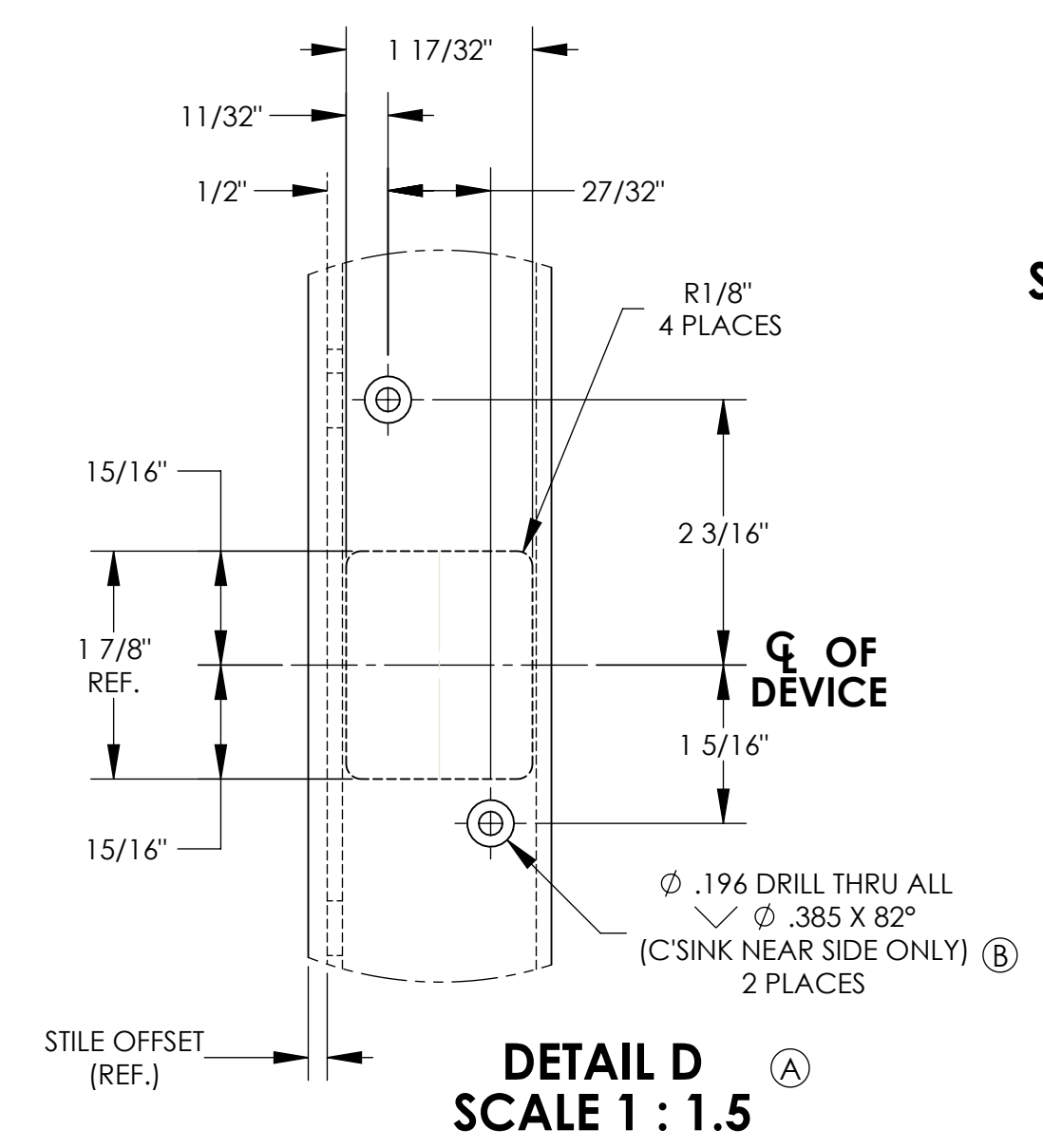
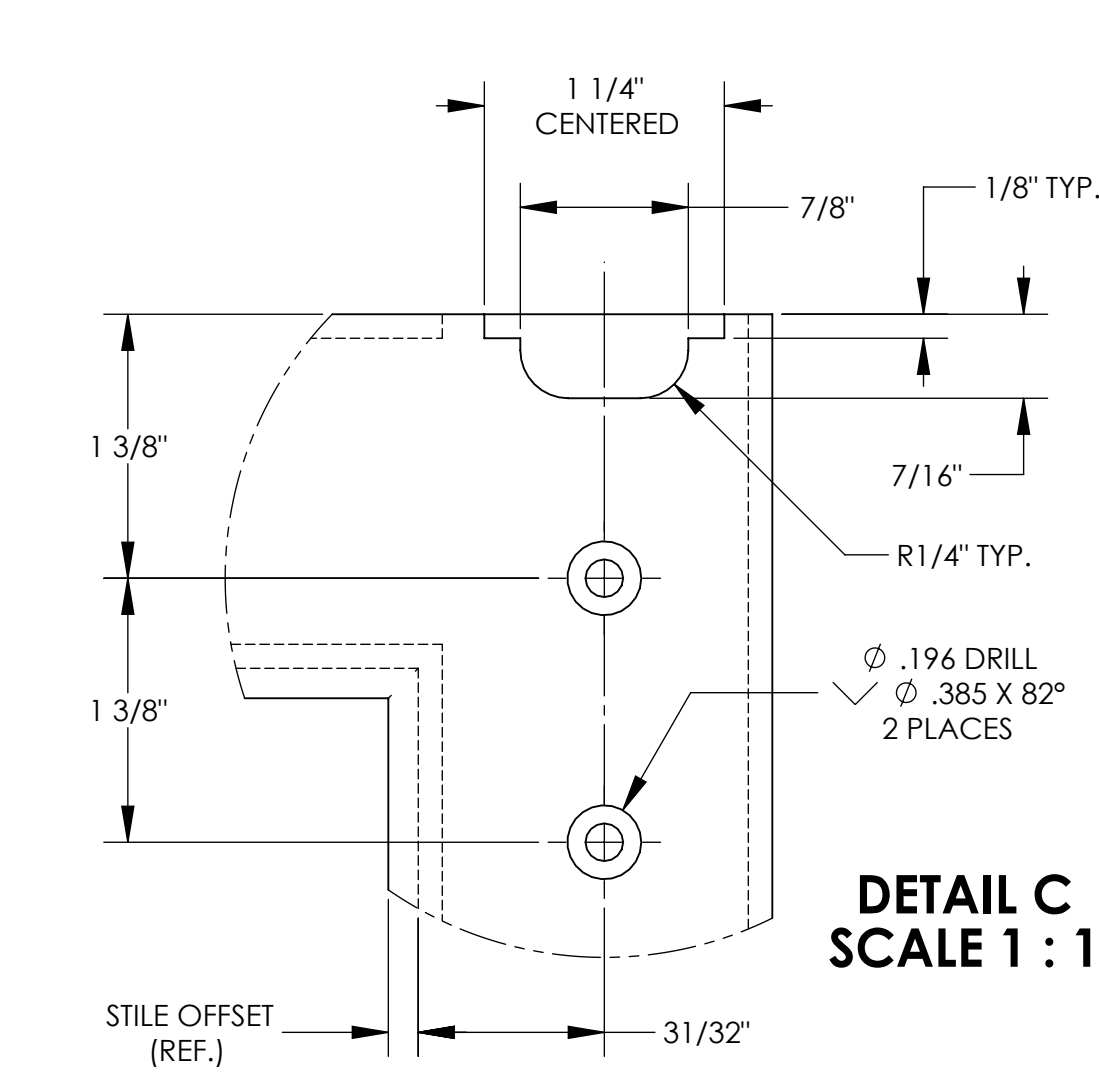
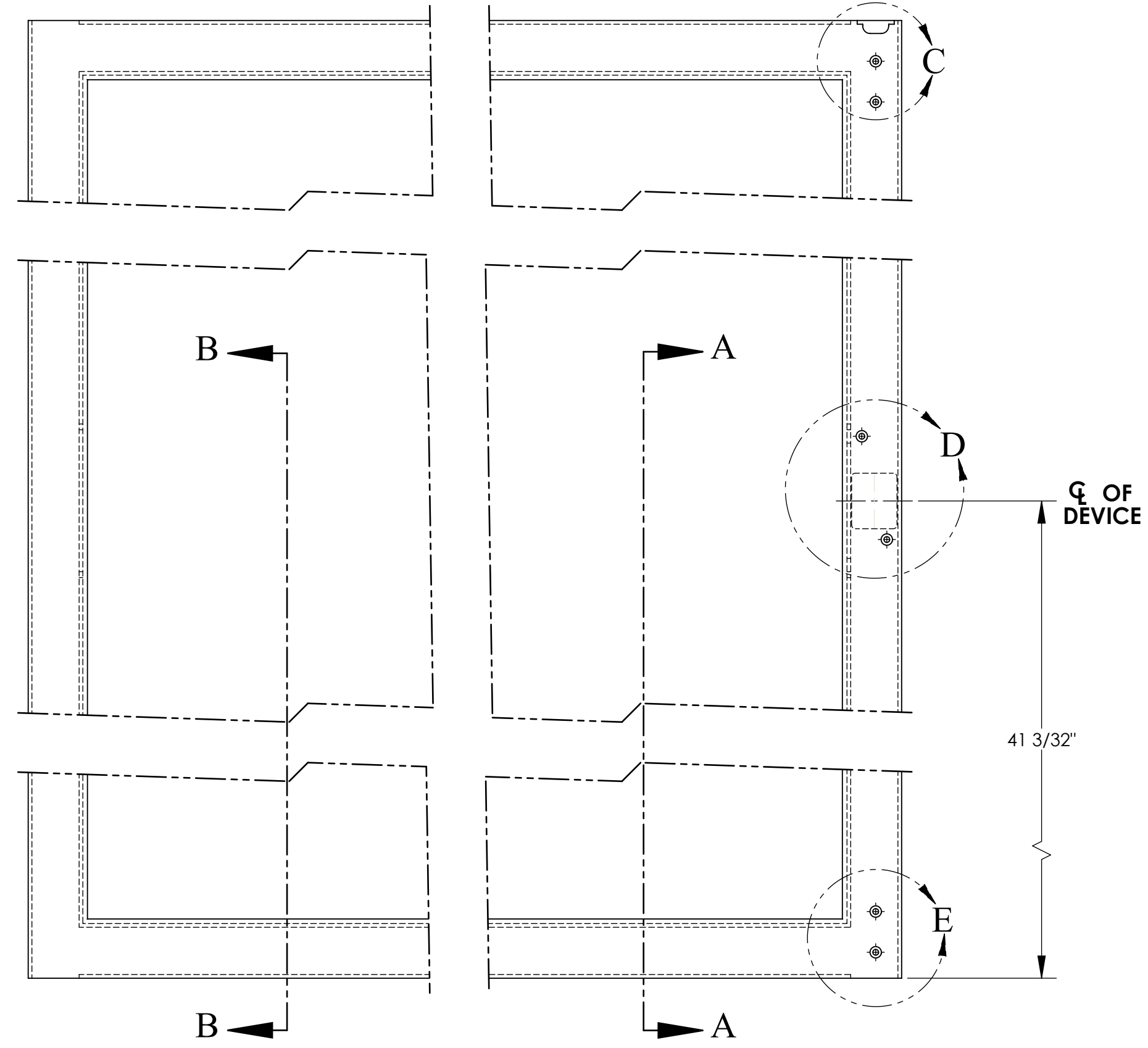
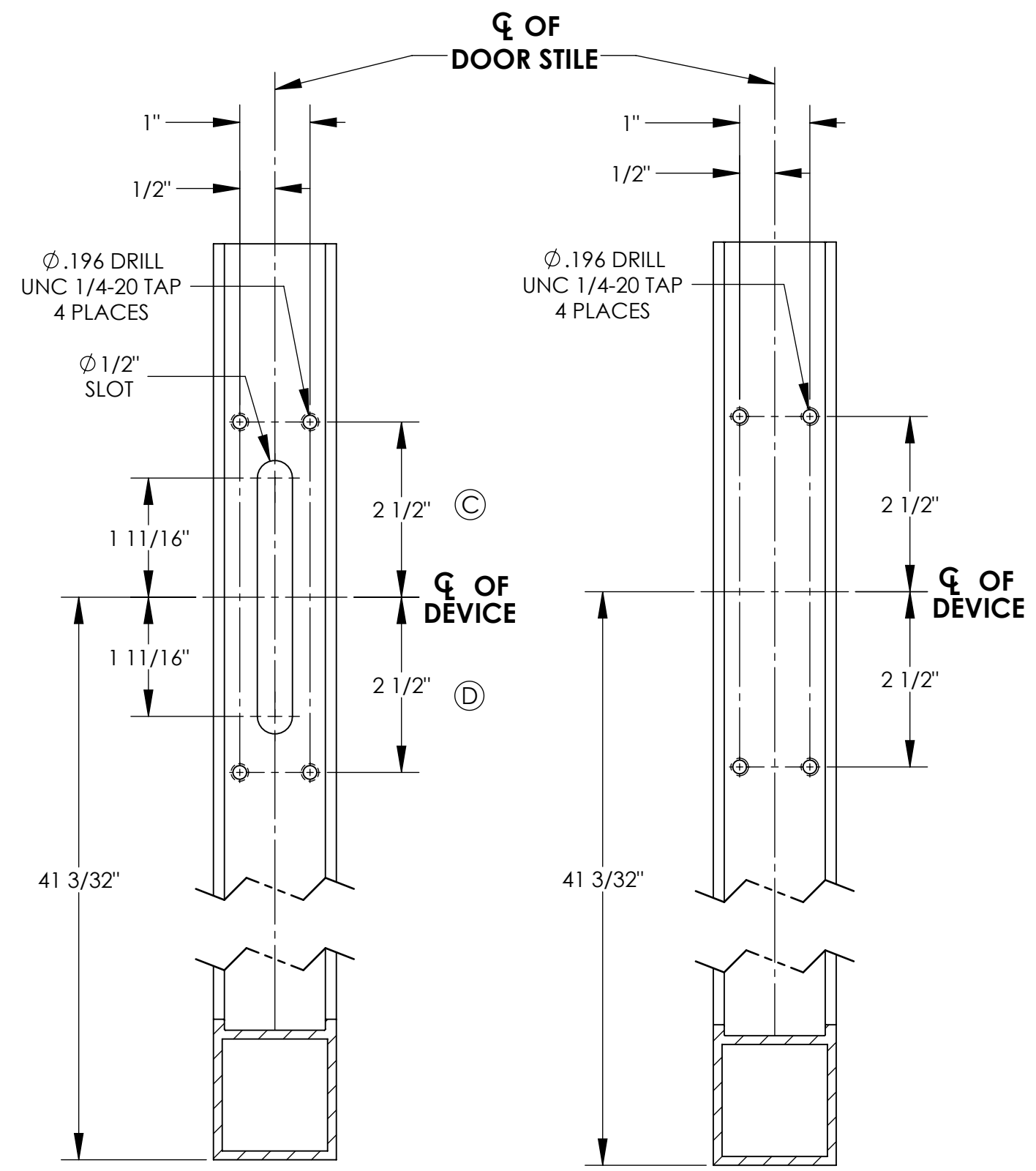
MP050

USED ON

UNLESS OTHERWISE SPECIFIED; BREAK ALL SHARP CORNERS AND REMOVE ALL BURRS.

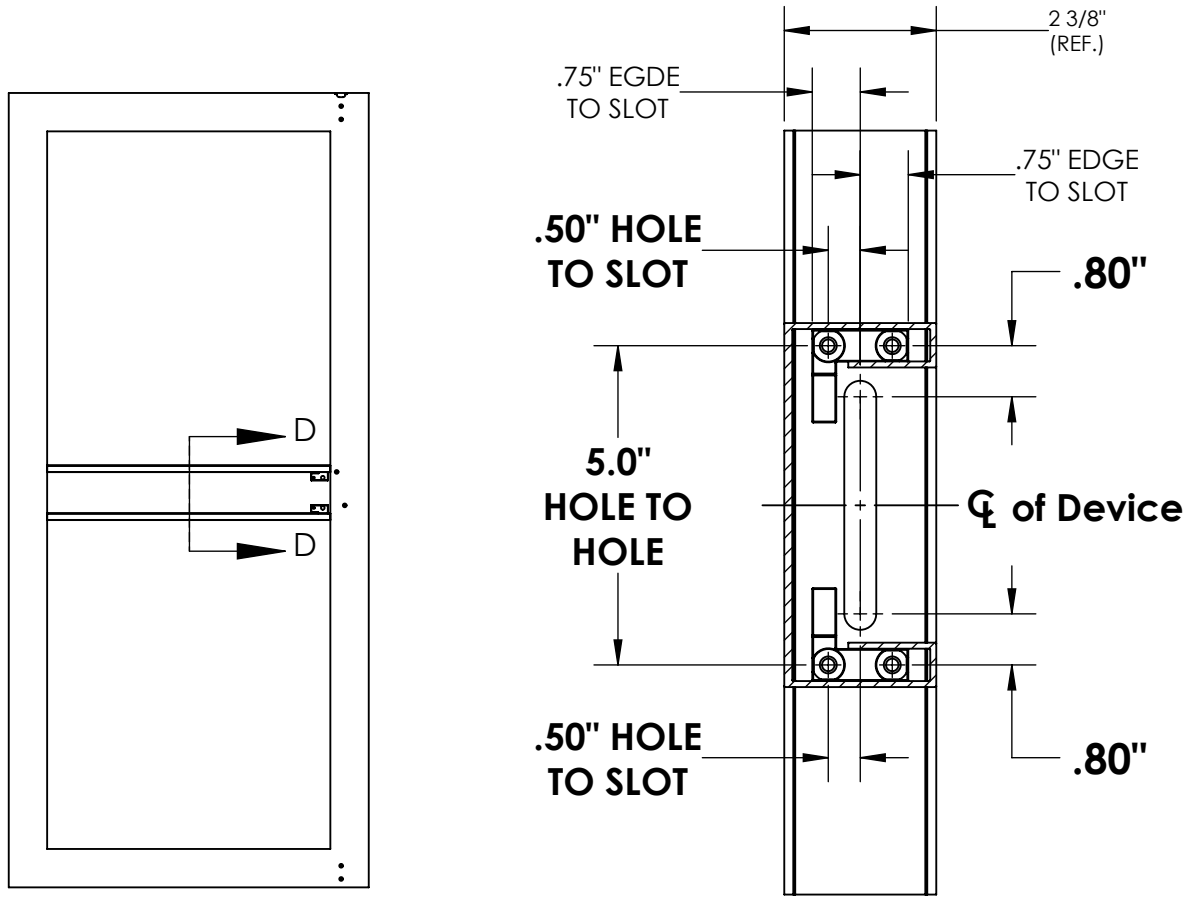
MATERIAL				ALUMINUM			
SIZE	KIND	SHAPE	TEMPER	HEAT TREAT			
HARDNESS				CASE DEPTH			
PART FINISH				DRAWN BY			
				DMD		DATE	
				SHEET NO.		DESIGNED BY	
				1 of 3		DEVINE	
				INCH		SCALE	
				THIRD ANGLE PROJECTION		1:4	

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DOOR PREPARATION TEMPLATE (MID PANEL)			
DRAWN BY		DATE	
DMD		11/17/2002	
SHEET NO.		DESIGNED BY	
1 of 3		DEVINE	
		SCALE	
		1:4	
MP023			



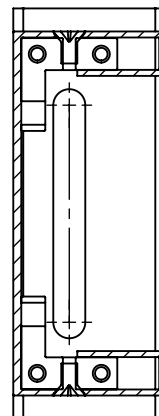
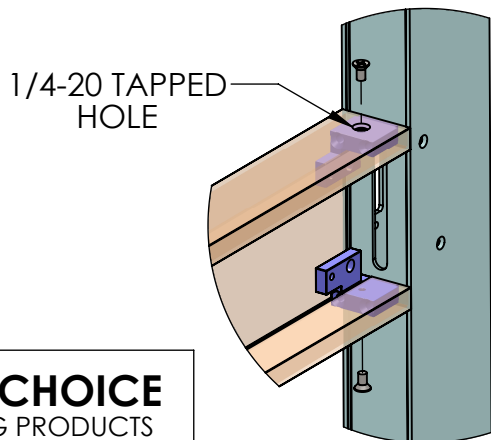
Possible Mounting Configurations for Thick Doors & Critical Dimensions

***Regardless of Door Thickness and/or Muntin Shape provided by the customer, the following dimensions are critical for Device to function & fit properly:

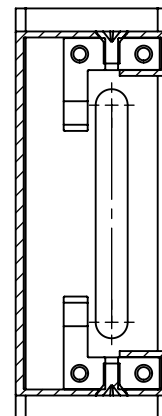


MUNTIN BLOCKS
CENTERED ON FRAME

Due to Muntin Block design sized for 1 3/4" Thick Door, spacers may be needed to keep Muntin and/or floating Muntin Blocks rigid. Customers may also use 1/4-20 Tapped hole in Muntin Blocks to keep Activating Assembly and Muntin rigid.



MUNTIN BLOCKS
OFFSET **BACKWARD**



MUNTIN BLOCKS
OFFSET **FORWARD**

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