

EX76W Concealed Vertical Rod Exit Device

Preparation Guide and Installation



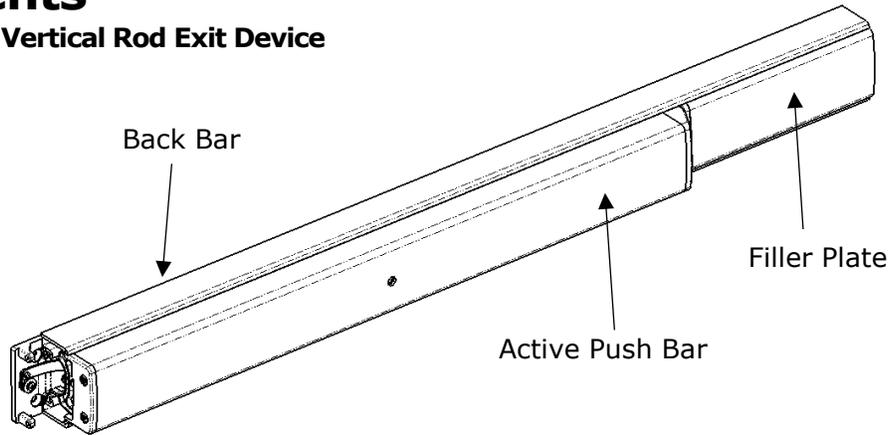
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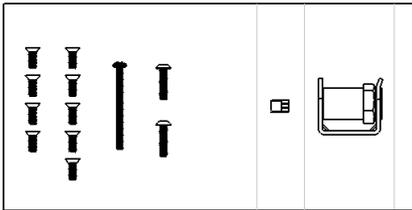


Box Contents

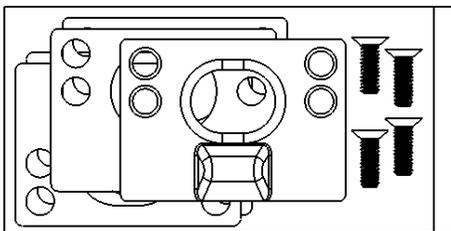
EX76W Concealed Vertical Rod Exit Device



Door Kit



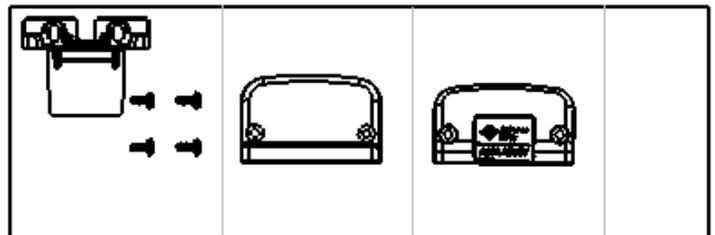
Frame Kit



Rod Assembly



Mounting End Cap Kit



Recommended Installation Tools

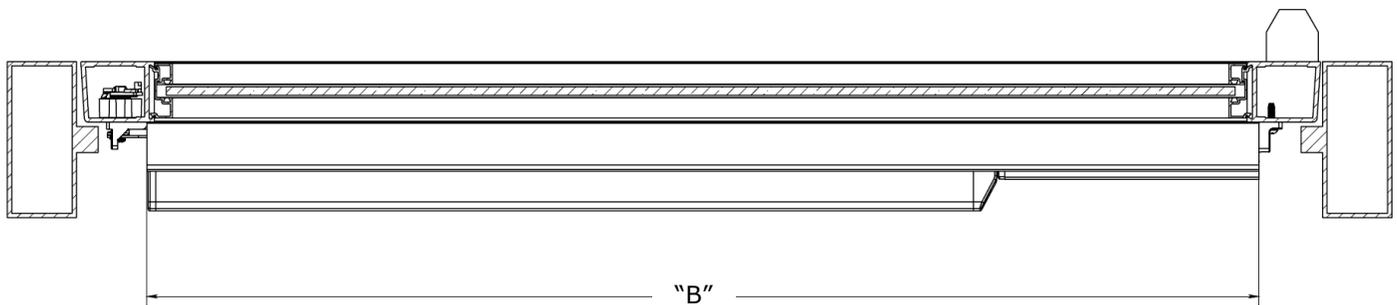
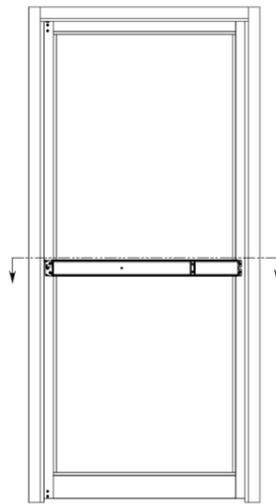
- Safety glasses
- Power drill
- Drill bits #25, 13/64", 82 Deg C'sink, 5/8", 1/4", 3/8", 1", 1-3/8", 10-24 UNC TAP 1/8" and 9/64" Hex wrenches
- Measuring tape
- Center punch
- Level
- Phillips screw driver
- Pencil
- Saw horse

IMPORTANT NOTE 1: All work must be performed to applicable building, regulatory and life-safety codes. Please consult local Authority Having Jurisdiction (AHJ) for more information.

IMPORTANT NOTE 2: The Americans with Disabilities Act (ADA) guidelines specify door hardware be installed 34" minimum and 48" maximum above the finished floor.

Sizing the Exit Device

| Standard Door Widths and Mounting Hole Spacing | | | |
|--|-------------|---------------|----------|
| Exit Device Length | Regular (R) | Midlength (M) | Long (L) |
| Standard Door Width <i>No Cut Required</i> | 36" | 42" | 48" |
| Minimum Door Width Exit Device Can Support | 30" | 36" | 42" |



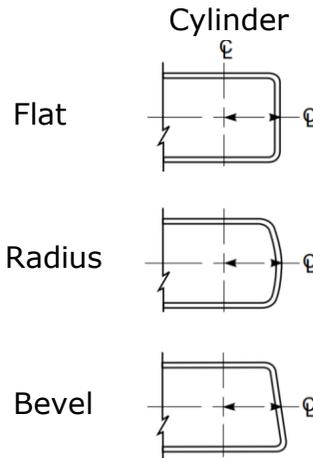
NOTE: All EX Series Exit Devices are sized at the factory for 5/8" frame stop in narrow stile aluminum applications.

1. DETERMINE cut off dimension "B" Back Bar extrusion length by subtracting 3-7/8" from door opening width.
2. MARK cut off line "B" on Filler Plate and Back Bar.
3. REMOVE Filler Plate from Back Bar and CUT along lines on both pieces. REPLACE Filler Plate into Back Bar.

IMPORTANT NOTE: Do not cut Active Push Bar

Measuring the Backset

NOTE: Backset is always measured at the door centerline, and not edge.



NOTE:

The backset required by this CVR exit device is **1-3/32"**

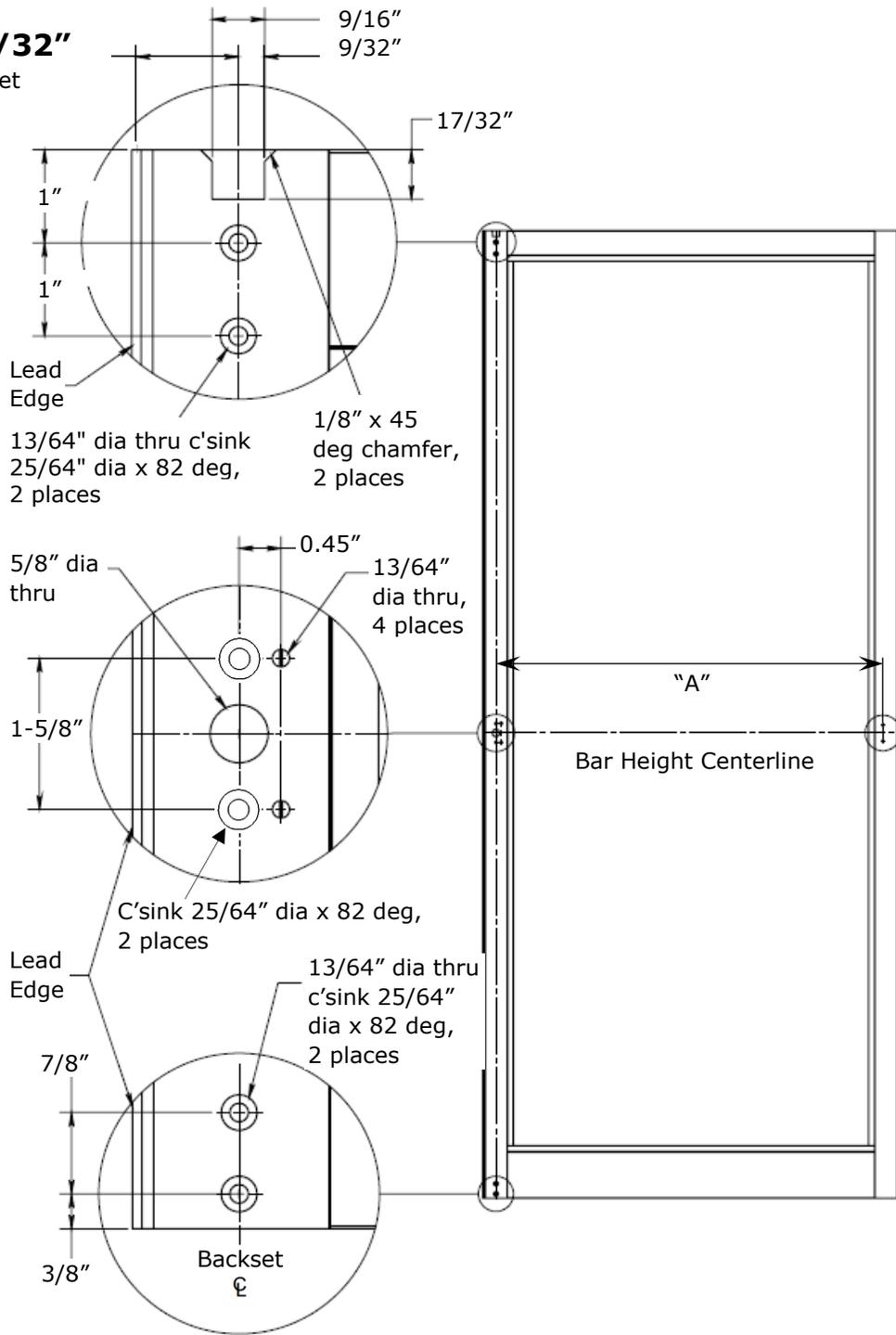
Preparing the Inside of the Door

1. DETERMINE and MARK the applicable bar height centerline (horizontal line) of the exit device on the interior of the door.
2. DETERMINE and MARK the backset required.
3. DETERMINE the location of the door templates by using the bar height centerline of the exit device and aligning the template with the backset centerline (vertical line) of the door. AFFIX the templates to the door.
4. DETERMINE and MARK the hinge side preparation using dimension "A" as shown in the "Standard Door Widths and Mounting Hole Spacing" chart below.
5. **IF** standard door widths, as shown in the "Standard Door Widths and Mounting Hole Spacing" chart below are not being used, **THEN** CUT to proper length using *Sizing the Exit Device* section on page 2.
6. MARK, CENTER PUNCH, DRILL all holes.
7. PREPARE door for cylinder escutcheon using "Preparing the Door for Mortise Cylinder Escutcheon" on page 6, if required.
8. REMOVE the templates.

| Standard Door Widths and Mounting Hole Spacing | | | |
|--|-------------|---------------|----------|
| Exit Device Length | Regular (R) | Midlength (M) | Long (L) |
| Standard Door Opening Width | 36" | 42" | 48" |
| Dimension "A" | 33-1/4" | 39-1/4" | 45-1/4" |

LHR Shown

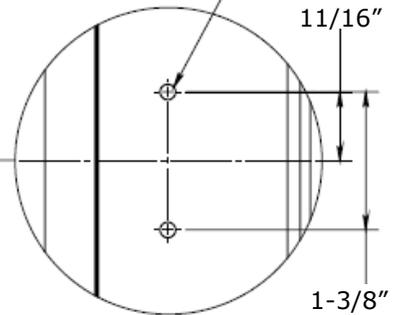
1-3/32"
backset



NOTE:

The backset required by this CVR exit device is **1-3/32"**

Drill #25 (.1495) dia and tap for 10-24 UNC, 2 places



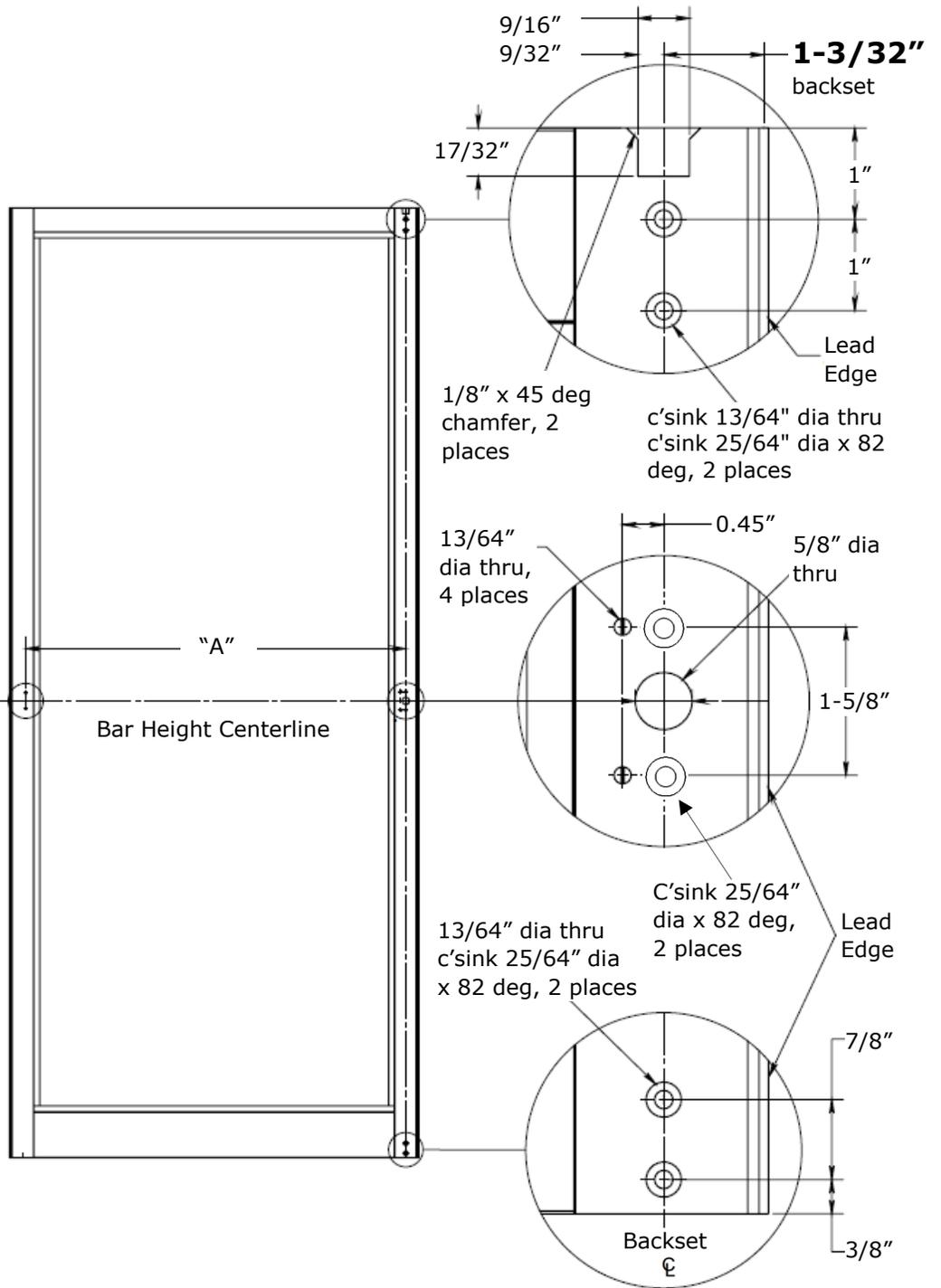
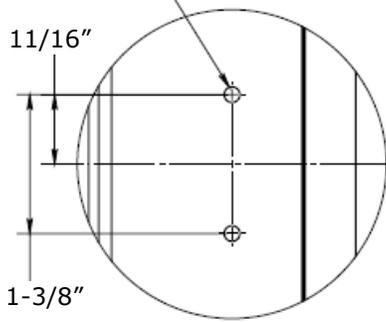
"A"
Bar Height Centerline

RHR Shown

NOTE:

The backset required by this CVR exit device is **1-3/32"**

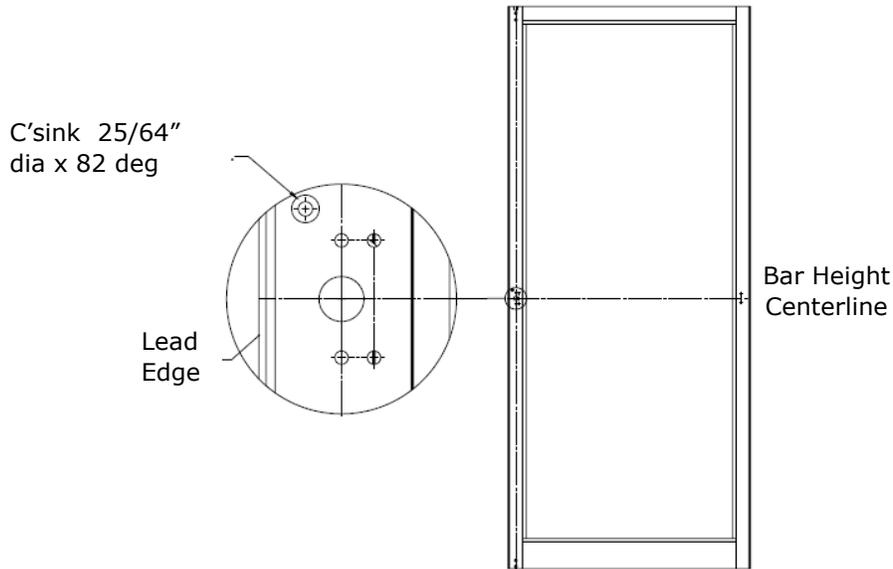
Drill #25 (.1495) dia & tap for 10-24 UNC, 2 places



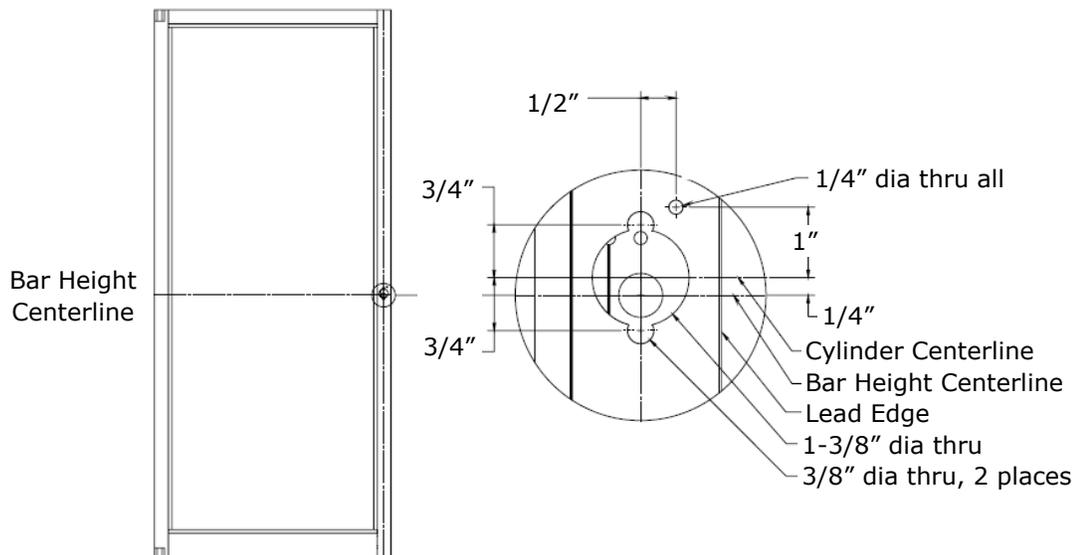
Preparing the Door for Mortise Cylinder Escutcheon

1. PREPARE the exterior and interior of the door for mortise cylinder escutcheon using the latch end door template and exterior cylinder template, as required.
2. PREPARE the door for mortise cylinder escutcheon mounting according to manufacturer's instructions, as required.

Interior Preparation for Use with Mortise Cylinder Escutcheon

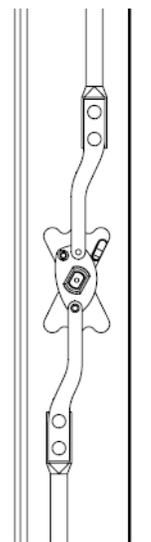
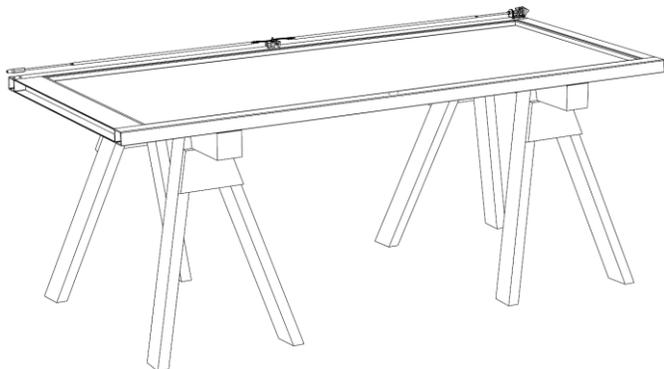


Exterior Preparation for Use with Mortise Cylinder Escutcheon

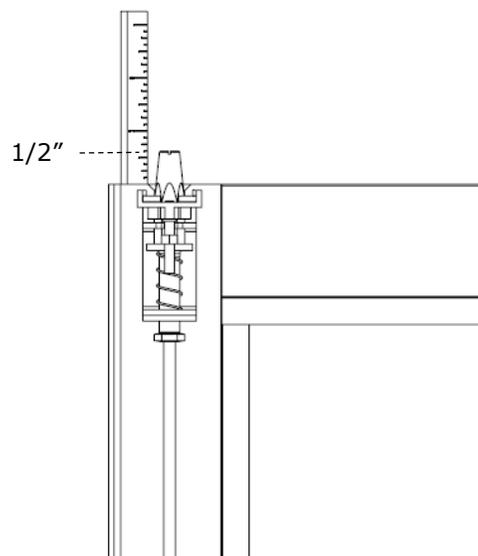
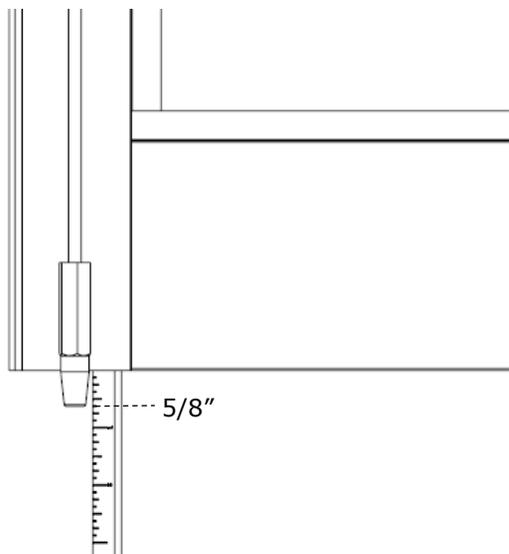


Installing the Exit Device

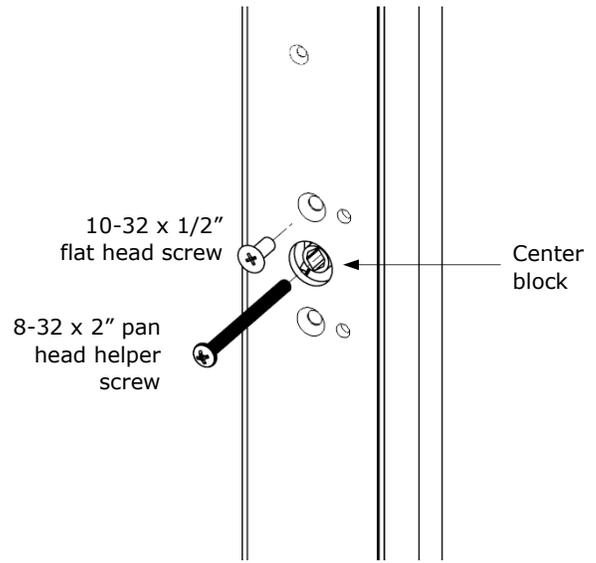
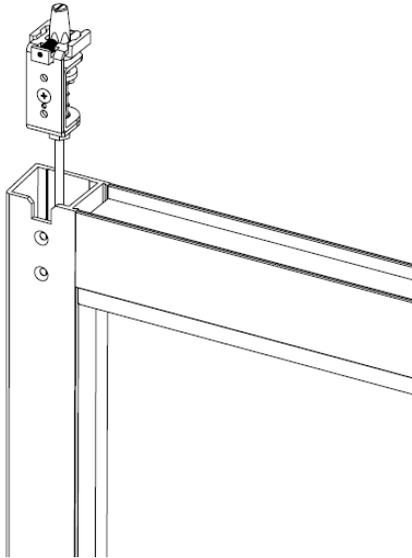
NOTE: Use provided self-tapping screws for aluminum or hollow metal applications.



1. PLACE the door assembly on a saw horse with the inside surface facing up.
2. PLACE the rod assembly on the face of the door with the center block cylindrical portion aligned with the installation hole.
3. EXTEND the rods fully.

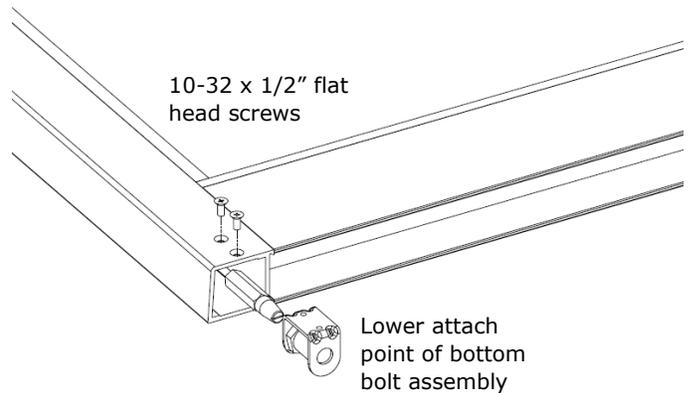
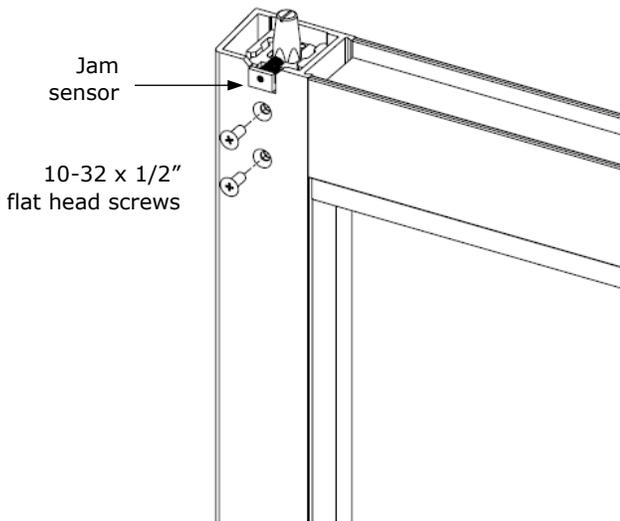


4. ADJUST the bottom bolt for 5/8" projection from the bottom of the door.
5. HOLD top bolt assembly with jam sensor inside the notch. ADJUST top bolt for 1/2" projection from the top of the door.



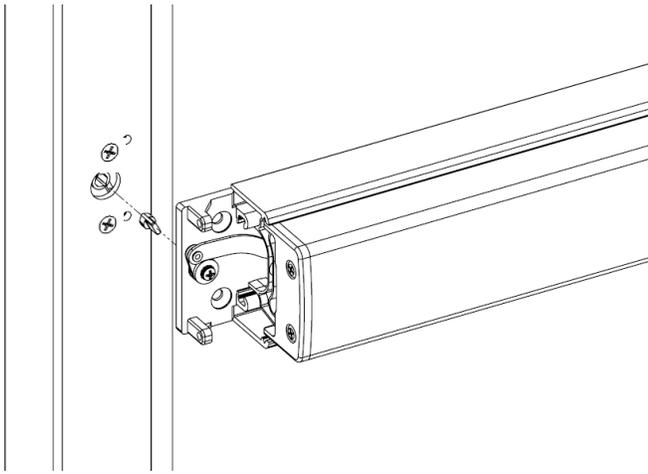
6. Being careful not to bend the rods, SLIDE rod assembly through the top end of the latch stile towards the center of the door until the bottom bolt reaches the bottom of the stile.
7. ALIGN hex shape of bolt with hex shape of bolt guide.

8. ATTACH the 8-32 x 2" helper screw (provided) into the center block. PULL the center block up into the installation hole.
9. While holding helper screw, SECURE center block assembly to the latch stile with provided 10-32 x 1/2" flat head screw.
10. Once secure, REMOVE and DISCARD the helper screw.

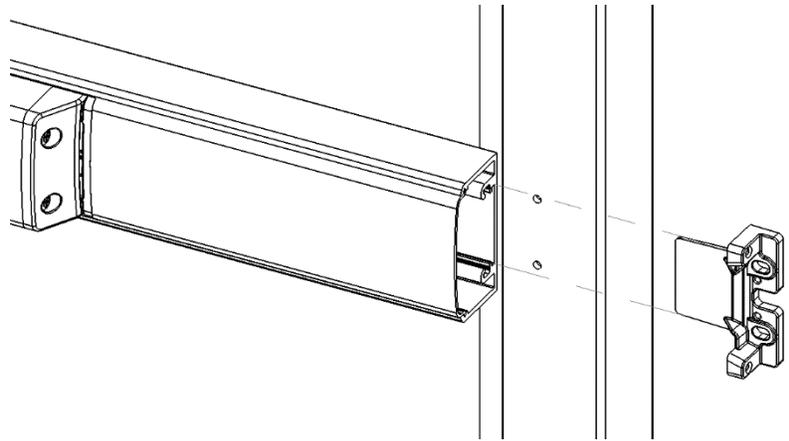


11. SECURE the top latch assembly with two (2) provided 10-32 x 1/2" flat head screws.
12. If necessary, DEPRESS the jam sensor to release the top bolt on the top latch assembly.

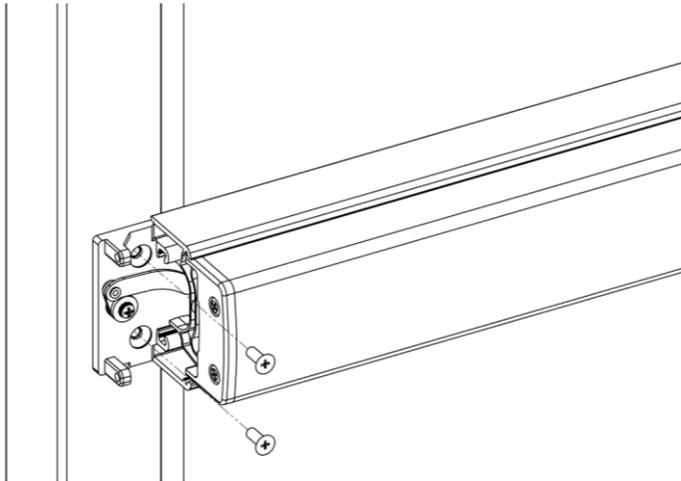
13. ALIGN hex shape of bolt with hex shape of bolt guide.
14. SECURE the lower attach point of bottom bolt assembly with two (2) provided 10-32 x 1/2" flat head screws. This locks bottom bolt into adjusted position.



15. PLACE exit device onto stile, INSERT spindle into drive hub.



16. SLIDE mounting foot into hinge side of back bar. ENSURE that back bar is perpendicular to vertical stiles of door.

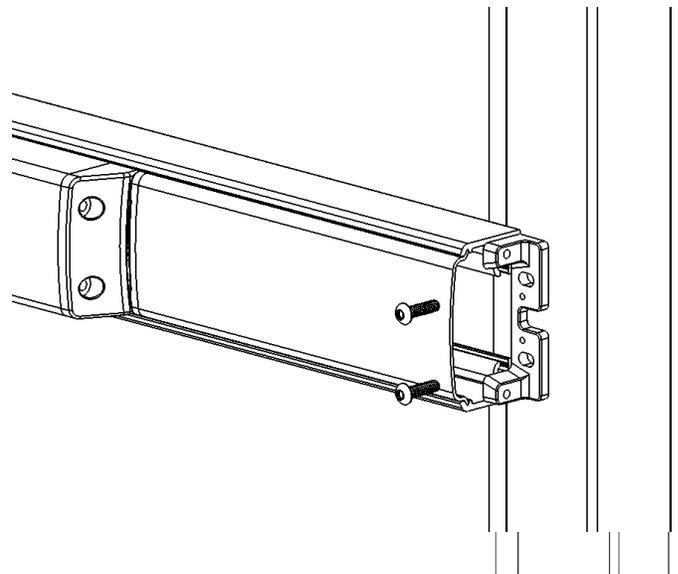


17. MARK and CENTER PUNCH two (2) outer hole positions through mounting foot.

18. REMOVE exit device, spindle and mounting foot. DRILL and TAP two (2) holes in vertical stile using #25 (0.1495") drill bit. Then tap holes to 10-24 UNC.

19. PLACE exit device onto stile, INSERT spindle into drive hub.

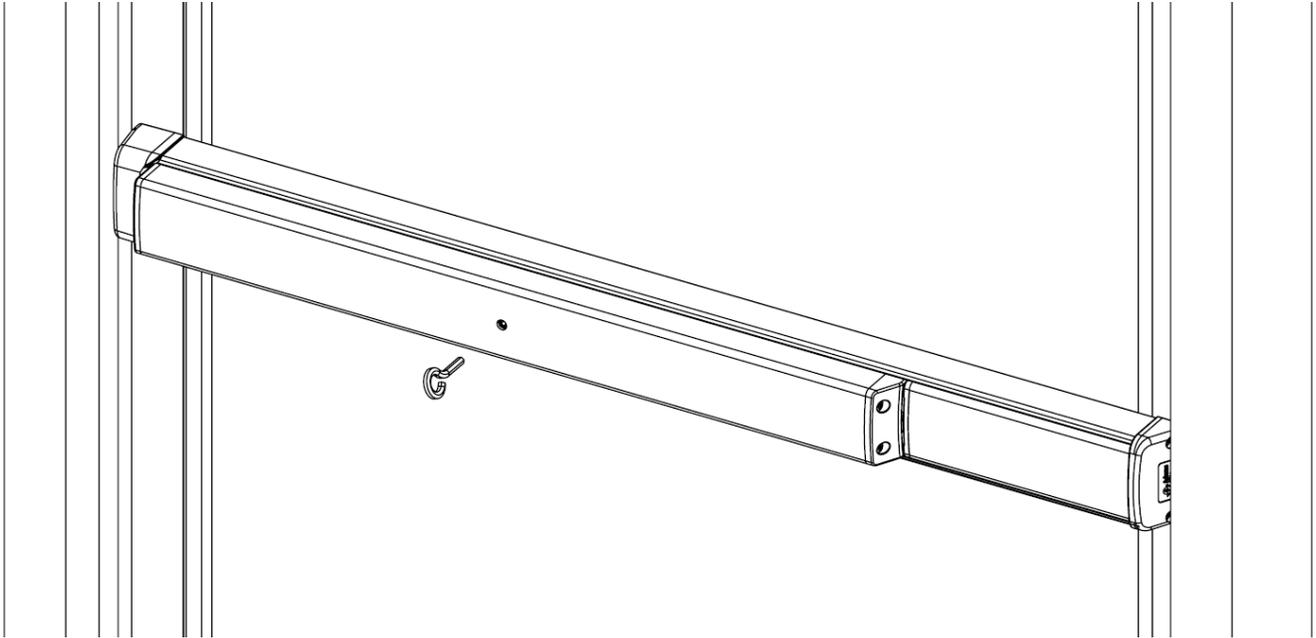
20. SECURE exit device using two (2) provided 10-32 x 5/8" flat head 1/8" screws.



21. SECURE mounting foot using two (2) provided 10-24 x 3/4 button head 9/64 hex screws.

Testing and Adjusting Exit Device Operation

1. PERFORM a visual inspection to make certain exit device will be level and secure.
2. TEST the operation of the Active Push Bar and the top and bottom bolts and ADJUST as necessary.
3. VERIFY that the top bolt retracts and latches, as appropriate.
4. VERIFY that the top and bottom bolts are flush with the door edges when retracted.
5. PUSH top jam sensor and VERIFY the top and bottom bolts project to 1/2" from the door edge.
6. **IF** bolts do not move,
THEN CHECK rods for binding.



NOTE: The following is not applicable to fire-rated exit devices. Dogging the Active Push Bar disables the latching function, making the door a simple push/pull operation.

7. DEPRESS and HOLD active push bar in unlocked position.
8. INSERT and ROTATE hex key one-quarter turn clockwise to lock device (dog) into position.
9. ROTATE hex key one-quarter turn counterclockwise to unlock device and release device into motion.
10. ENSURE exit device is operational and ADJUST as required.

NOTE: Over-rotation of the key past the prescribed one-quarter turn may cause damage to the exit device.

Preparing the Header and Threshold

NOTE: Misalignment of mounting holes will prevent bolts from traveling into the deadlocked position.

1. POSITION door inside opening such that it is plumb and square, and door freely swings open. INSTALL door according to manufacturer's instructions.
2. MARK locations for bolt holes very carefully, allowing for weather stripping, if applicable.
3. MARK, CENTER PUNCH, DRILL 1" dia center hole in header to receive top bolt.
4. MARK, CENTER PUNCH, DRILL TAP two (4) #8-32" holes in header to attach header strike.

Using #29 drill bit and #8-32 tap

5. INSTALL header strike plate using included #6-32 x 1/2" Phillips flat head screws and shim plates, as required.

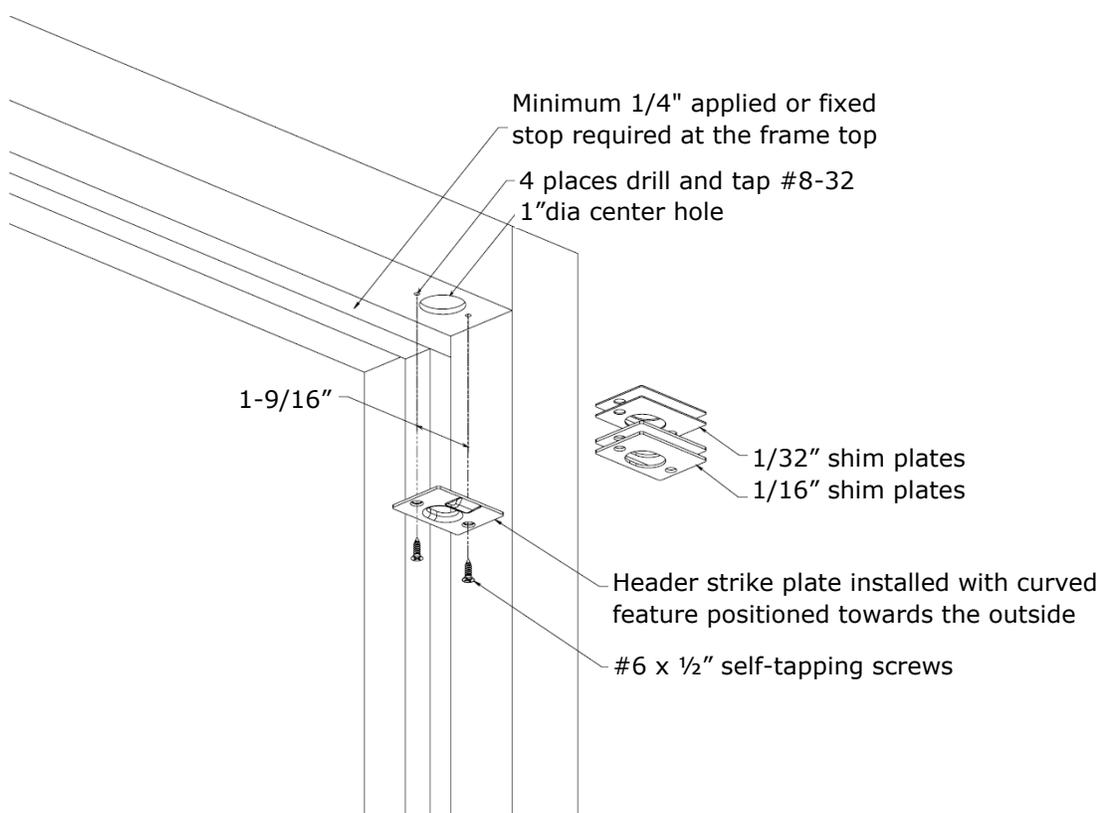
Two (2) 1/32" and two (2) 1/16" shim plates are included to mount between header strike plate and frame, as required, in order to maintain no more than 1/8" gap between top of door and header strike plate.

ENSURE gap between top of door and header strike plate is no more than 1/8".

6. MARK and DRILL 9/16" diameter center hole in threshold to receive bottom bolt.

To accommodate maximum bolt engagement, depth of hole in must be 3/4" deep, measured from top of threshold and header.

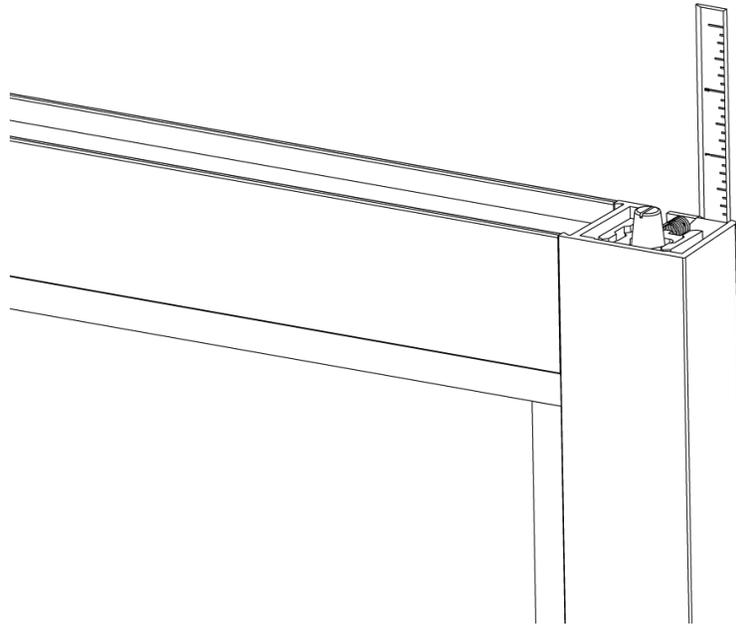
7. CLOSE door. VERIFY proper operation of door and exit device at various operation speeds. ADJUST as required.



Adjusting the Bolts

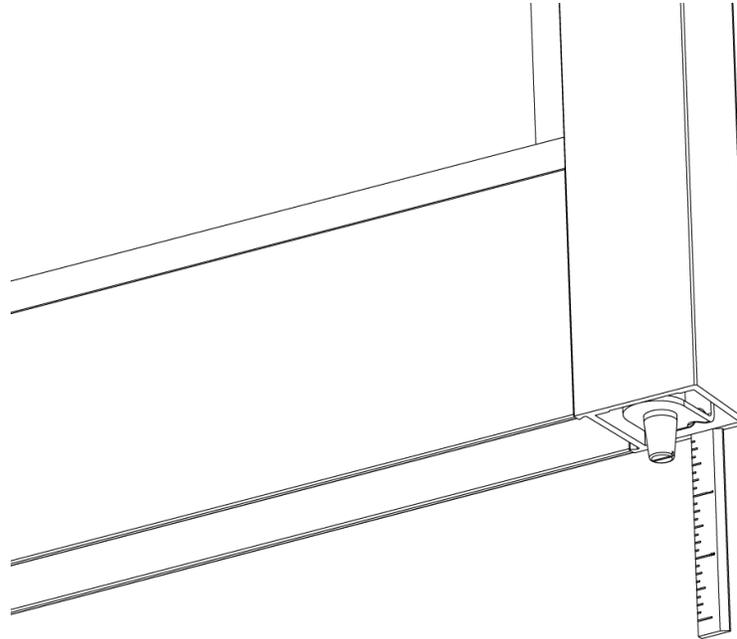
The following steps address how to adjust bolts for proper engagement with the header and threshold for varying installed door gaps.

Top Bolt



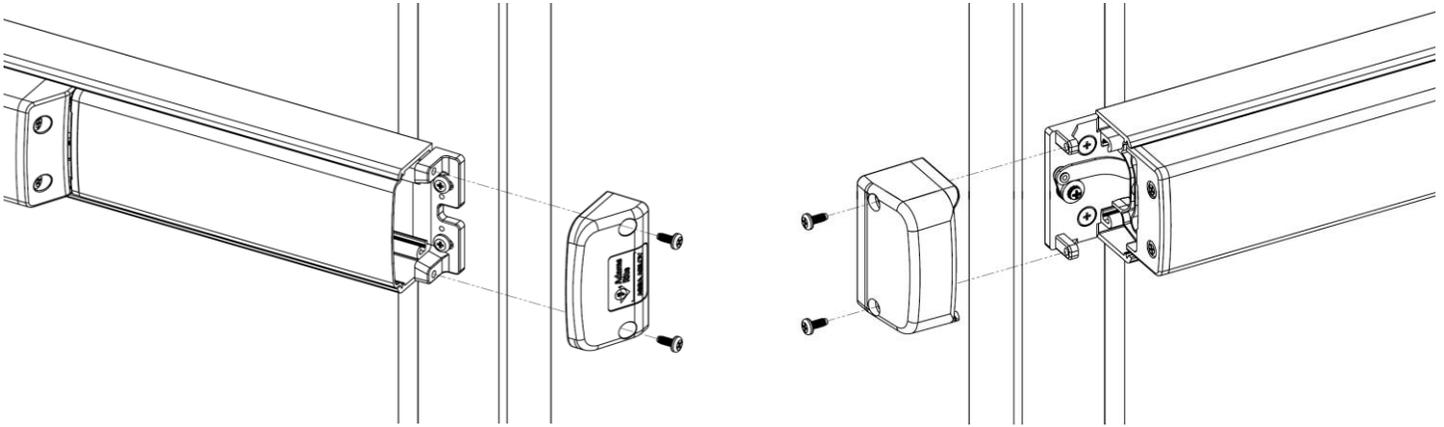
1. MEASURE the door gap at the header. ADD $3/8$ " to this measurement to a maximum allowable adjustment of $1/2$ ".
2. PUSH in active push bar to retract top bolt. OPEN door.
3. ADJUST top bolt by pushing it inwards and rotating clockwise or counterclockwise until the released projection equals the measurement calculated in Step 1.
The bolt projection will change $1/8$ " for every 3 full rotations of the bolt.
4. ALIGN hex shape of top bolt with hex shape of bolt guide.
CLOSE door. VERIFY proper operation of door and exit device. ADJUST as required.

Bottom Bolt



1. MEASURE the door gap at the threshold. ADD $1/2''$ to this measurement to a maximum allowable adjustment of $3/4''$.
2. PUSH in active push bar to retract bottom bolt.
3. LOOSEN top mounting screw of bottom bolt guide. OPEN door.
4. ADJUST bottom bolt by rotating it clockwise or counterclockwise until the released projection equals the measurement calculated in Step 1.
The bolt projection will change $1/8''$ for every 3 full rotations of the bolt.
5. ENSURE the flat side of hex bolt and bolt guide are parallel to the inner stile face.
6. TIGHTEN top mounting screw of bottom bolt guide.
7. CLOSE door. VERIFY proper operation of door and exit device at various operation speeds. ADJUST as required.

Installing the Mounting End Caps



1. INSTALL hinge side mounting End Cap on hinge side of door using two (2) 8-32 x 3/8" tri lobe pan head screws.
2. INSTALL latch side mounting End Cap on latch side of door using two (2) 8-32 x 3/8" tri lobe pan head screws.

Maintenance

1. CHECK mounting fasteners periodically and TIGHTEN if loose.
2. APPLY screw locking compound or CHANGE part fasteners if screws continue to back out.
3. PERFORM periodic and required checks and adjustments of strikes to compensate for wear and tear such as door sagging.

Warranty

For complete warranty information, please visit the Adams Rite website:
<http://www.adamsrite.com/en/site/adamsritecom/about/warranty/>

Notes



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