ESA-300 Full Breakout

Interior View

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Installation Instructions
For use with ESA II Controler

ESA-300 Full Breakout

Tools Required:

Screwdrivers
- Small Straight (Flat Blade) - for Terminal Block wiring
- #2 Phillips (Crosspoint) - for various #8, #10, and #14 screws

Wrenches / Sockets
- 7/16" - for #1/4-20 Hex Head bolts attaching header to jambs
- 1/2" (13mm) - for #5/16 Hex Head bolts attaching end stops and operator parts
- 15/16" wrench - for carrier and anti-rise roller adjustment

Allen Wrenches
- 3mm - for "SX" & "SO" roller catch adjustment
- 1/8" - for "SO" arm stop & "SX" bottom pivot
- 5/32" - for "SO" top pivot
- 5mm (3/16") - for "SO" arm pivot screw
- 7/32" - for "SX" breakout adjustment
- 5/16" - for carrier and anti-rise roller adjustment

Electric Drill with the following drill bits -
- 9/64"(or #28) - for installing sensors & "SO" bottom roller stop
- 5/32" (or #22) - for installing #10 sheet metal screws into adjacent storefront
- 13/64" (or #7) - for installing #14 sheet metal screws into adjacent storefront
- 1/4" - for clearance holes in jambs
- 82 degree Countersink

Impact Drill with the following masonry bits -
- 1/4" - for #10 screw anchors
- 5/16" - for #14 screw anchors

Level - suggested 4' minimum
Step Ladder - 4' or 6'
Tape Measure
Caulking and Application Gun
Electrical Wire Strippers /Cutters - for sensor wiring
Grease [to hold "SX" bottom guide block on shaft]
BEA Universal Remote Control - for adjusting sensors

Suggested Fasteners Required - (Not supplied)

Jamb Attachment Screws -
- #14 X 2-1/2" PHSMS (Pocket Jambs)
- #14 X 3" FHSMS (Tube Jambs)
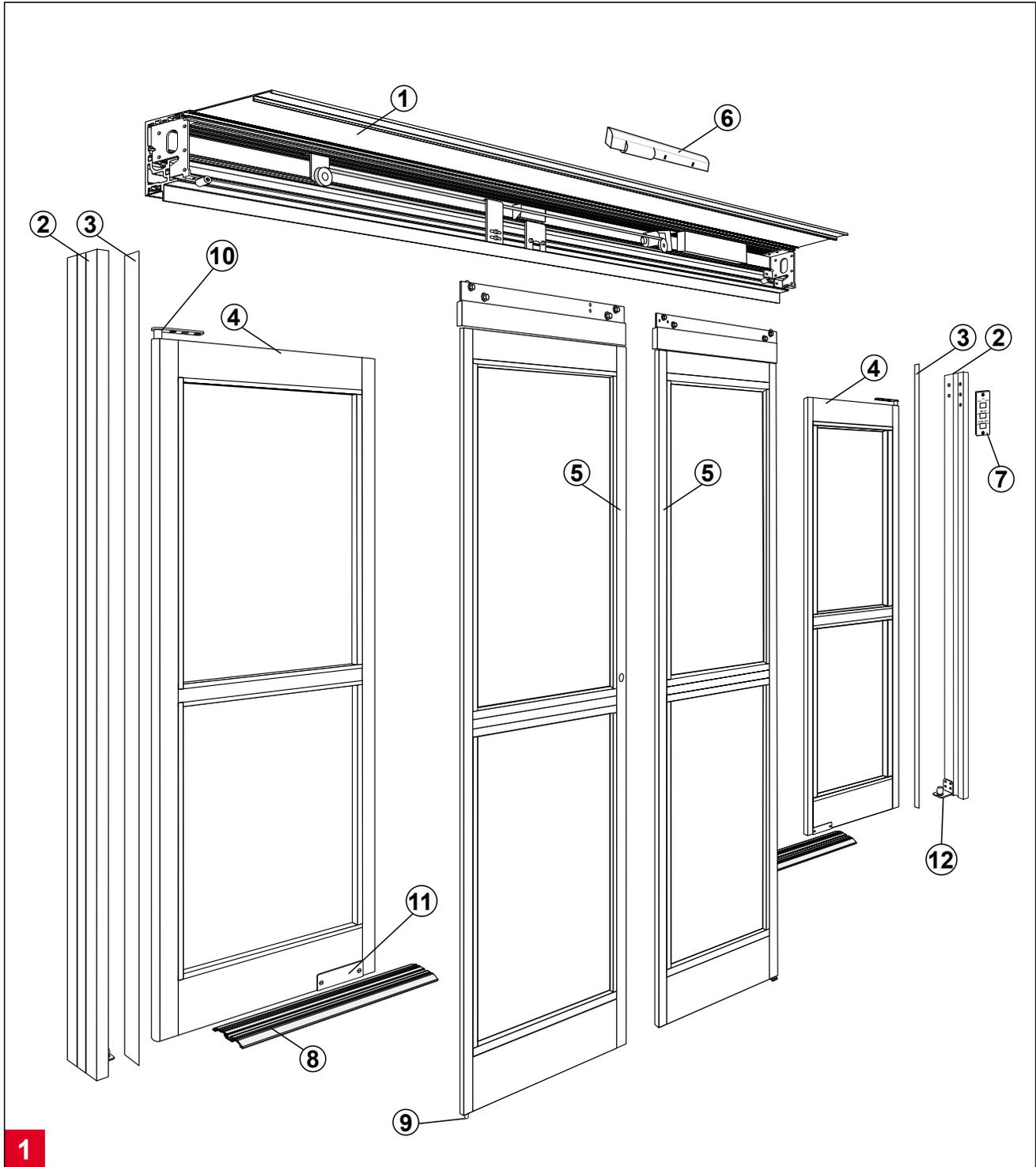- Optional Anchors for masonry

Threshold Attachment Screws
- #10 X 1-1/2" FHSMS
- Optional Anchors for masonry
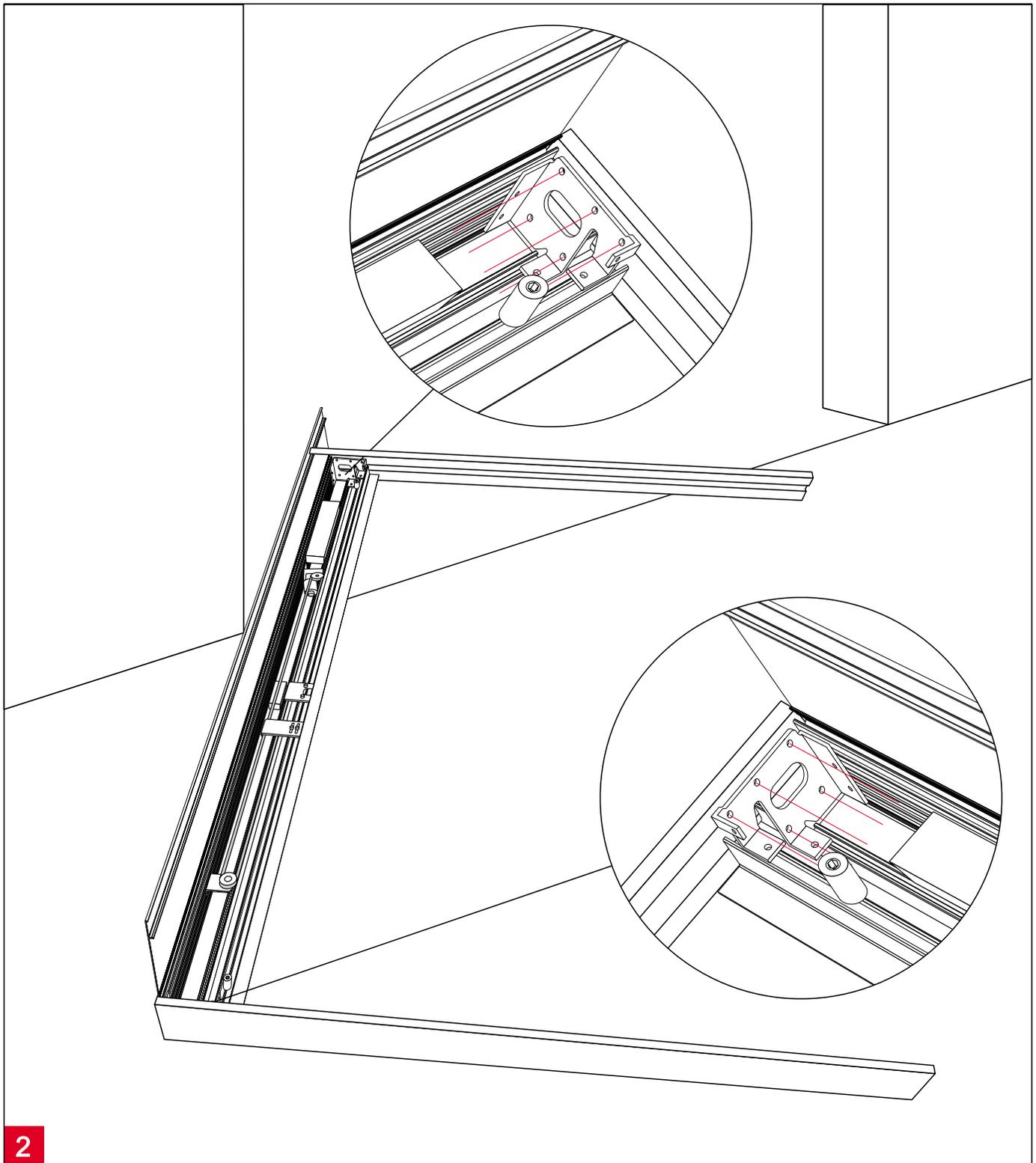
Header Attachment Screws
- #14 X 1-1/2" HHSMS
- #14 Flat Washer

Construction Shims - for squaring door frame in opening

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Components - Overview

① Operator Unit
② End Tube (Jamb) Extrusions
③ Cover Extrusion
④ Sidelight

⑤ Sliding Panel
⑥ Motion Detector
⑦ Program-Panel
⑧ Floor Rail

⑨ Floor Guide
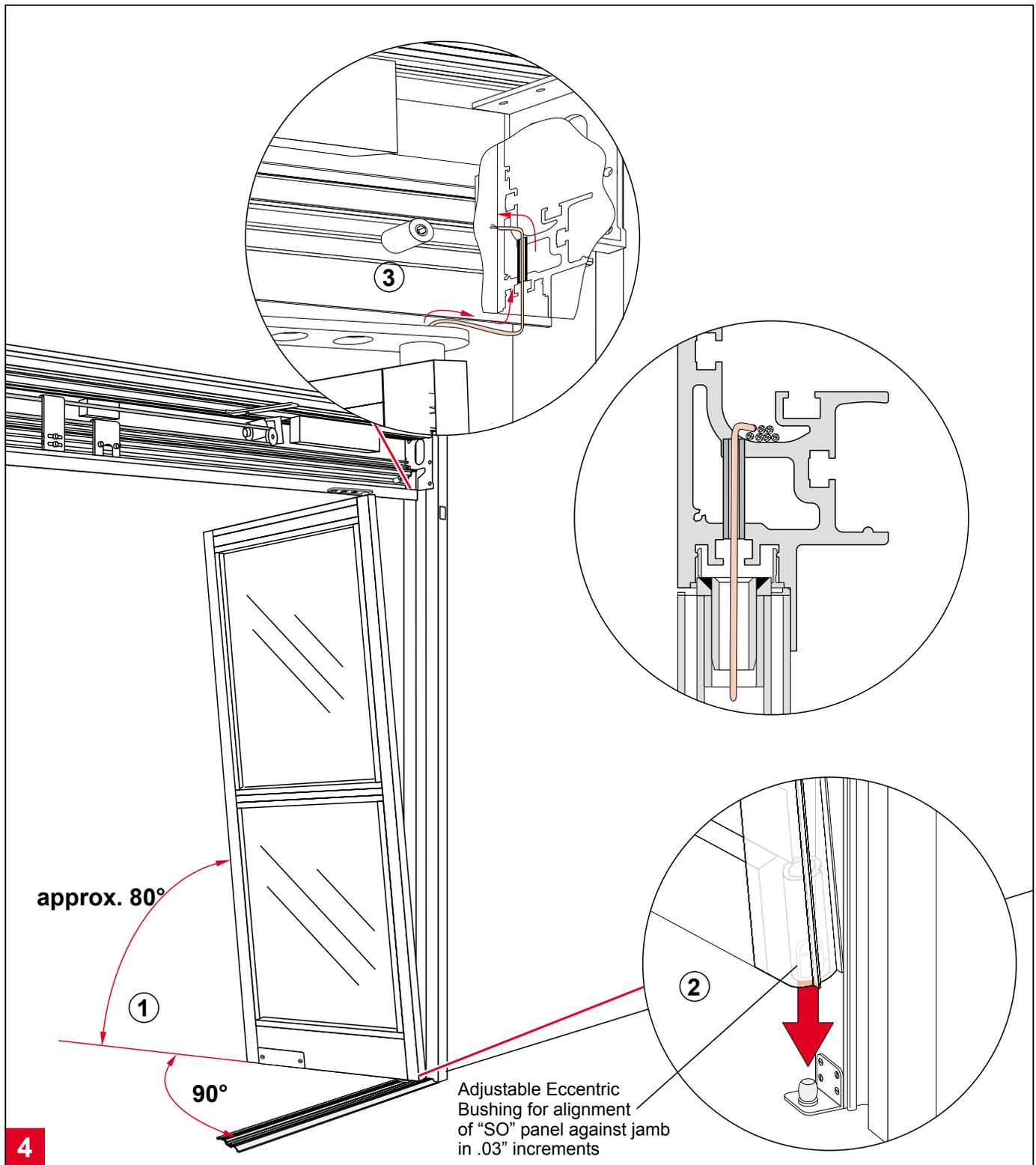⑩ Bearing Pivot
⑪ Latch Device
⑫ Bearing Pivot

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Header to Jamb Assembly

Fasten the header unit to the jambs using (5) 1/4-20 x 1" hex bolts per side.   (7/16" socket/wrench required.)

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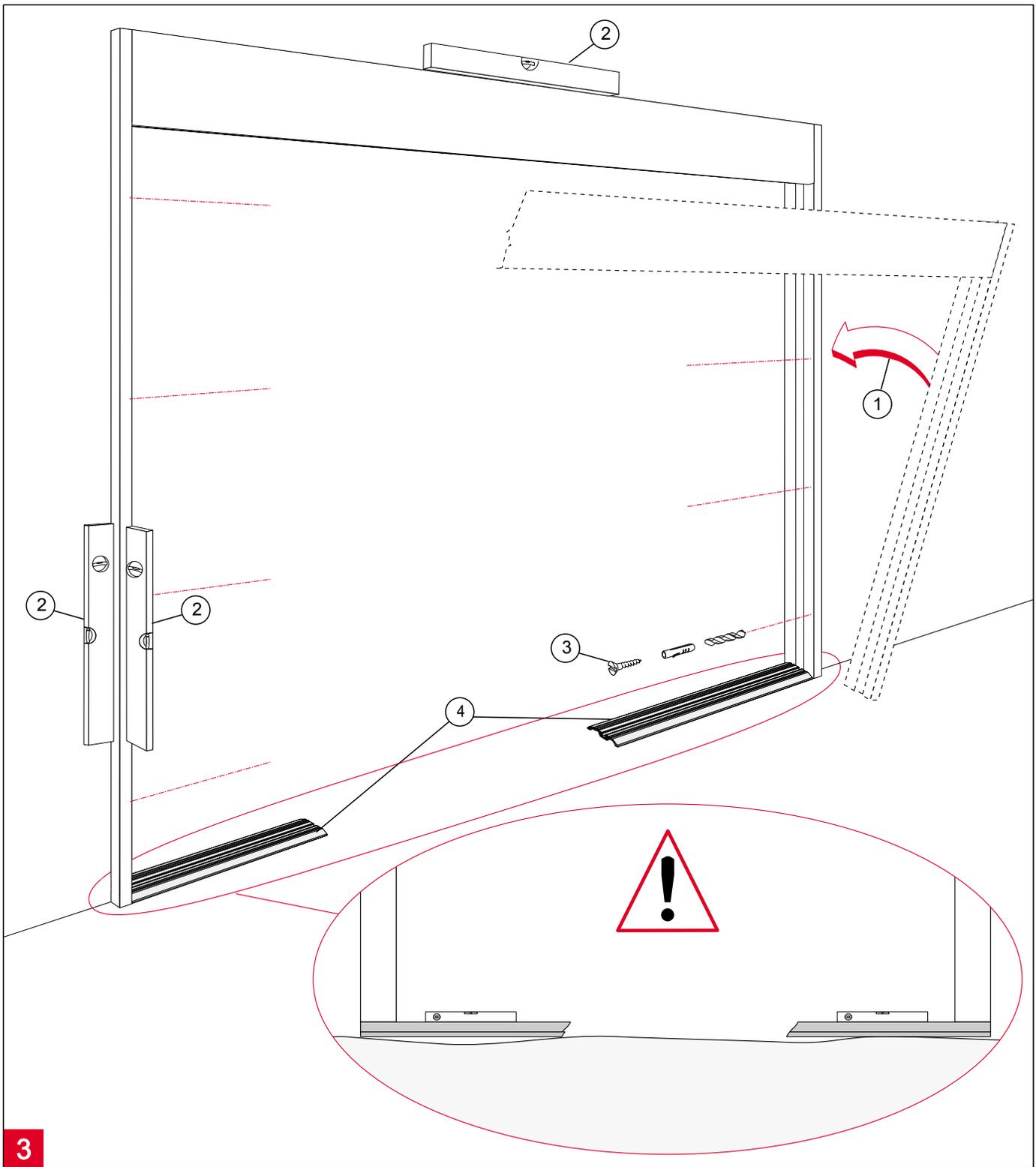
Assembly

① Place the header & jamb assembly into the rough opening.

② Level all sides and shim as required.

③ Fasten assembly into rough opening, after verifying unit is level and plumb in all directions.

④ Place floor track in position.
⚠ Find highest floor elevation and shim accordingly.

⚠ The mounting of the operator to the rough opening must meet applicable building codes and standards.

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DORMA AUTOMATICS, Inc.   924 Sherwood Drive   Toll-Free: 877-367-6211   DL2844-030
                            Lake Bluff, IL 60044   Fax: 877-423-7999   Rev. 1/07
                            E-mail: automatics@dorma-usa.com   Subject to change without notice

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approx. 80°

①

90°

②

③

Adjustable Eccentric
Bushing for alignment
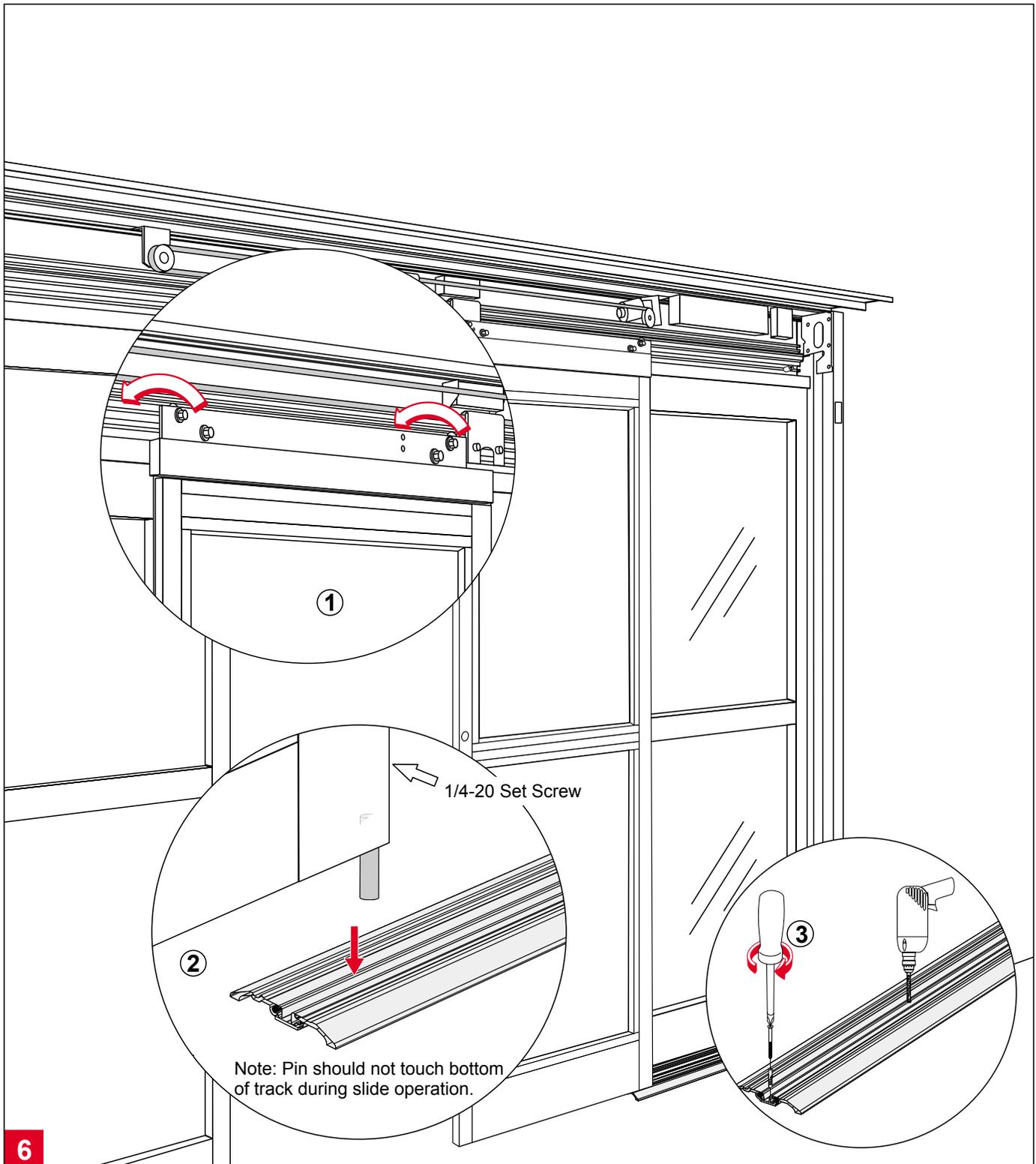of "SO" panel against jamb
in .03" increments

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Sidelight mounting

①-② Align "SO" panel 90° to the "SX" track and 80° to the vertical jamb. Place "SO" panel onto bottom pivot mounted on the jamb.

③ Insert Beam wires into top pivot, bushing and vertically through the header.
   Attention: Be careful not to damage the safety beam cable.

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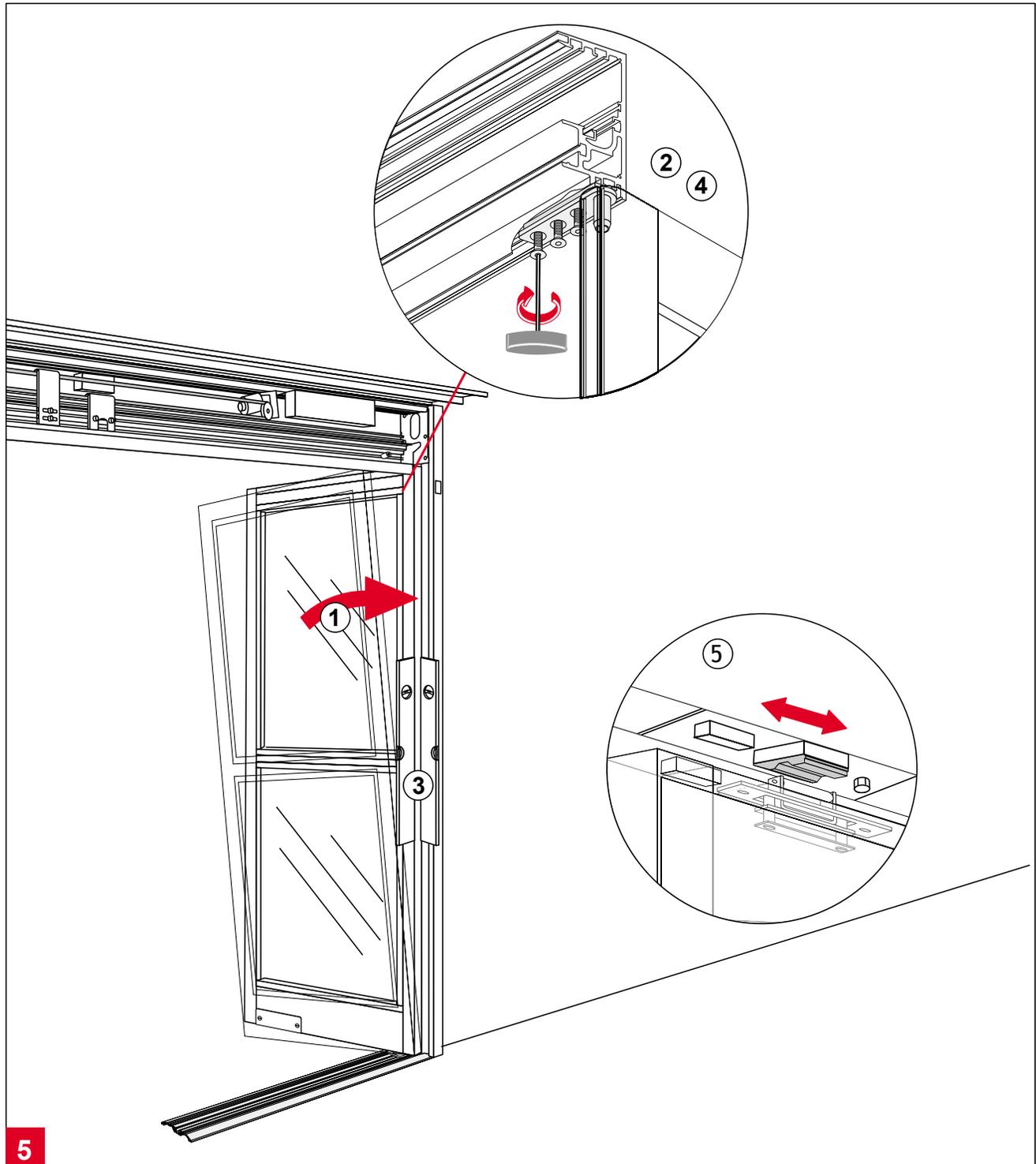
Securing the Sidelight

① Push "SO" Panel vertically to align with jamb.
   Attention: Be careful not to damage the wires.
② Rotate upper "SO" arm and lightly fasten to screw plate located in header.
③ Align and plumb "SO" Panel.
④ Tighten (3) 1/4-20 x 5/8 fasteners in "SO" top pivot, securing "SO" Panel to header using 5/32" Allen wrench.
⑤ Loosen fastener. Close "SO" panel and align "SO" magnet/latch sub-assembly. Tighten fastener using ½" socket/wrench. For roller catch tension adjustment, see Page 13.

① (in header diagram circle)

1/4-20 Set Screw

②

Note: Pin should not touch bottom of track during slide operation.

③

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Hanging the "SX" panel

① Lift "SX" panel and place rollers onto roller track in header.

② Find the highest spot along track. Place small screwdriver below "SX" pivot, loosen set screw and re-tighten when "SX" bottom guide pin reaches screwdriver (1/8" Allen wrench required).

③ Align track with jamb. Fasten and anchor bottom track to floor.

CW

3/16"+/-

15/16" Wrench
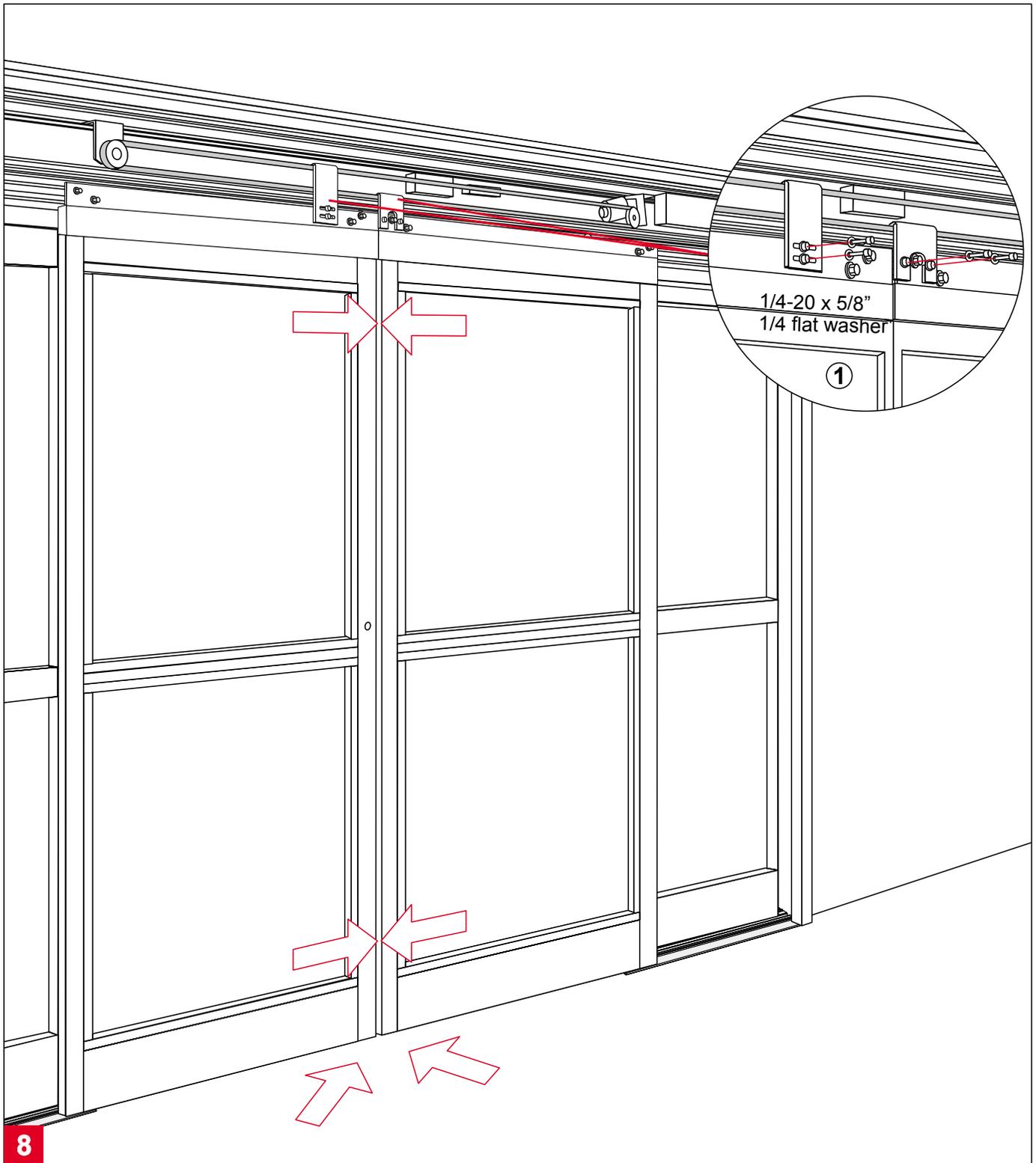
5/16" Allen

AW AW

CW CW

AW

1/64"
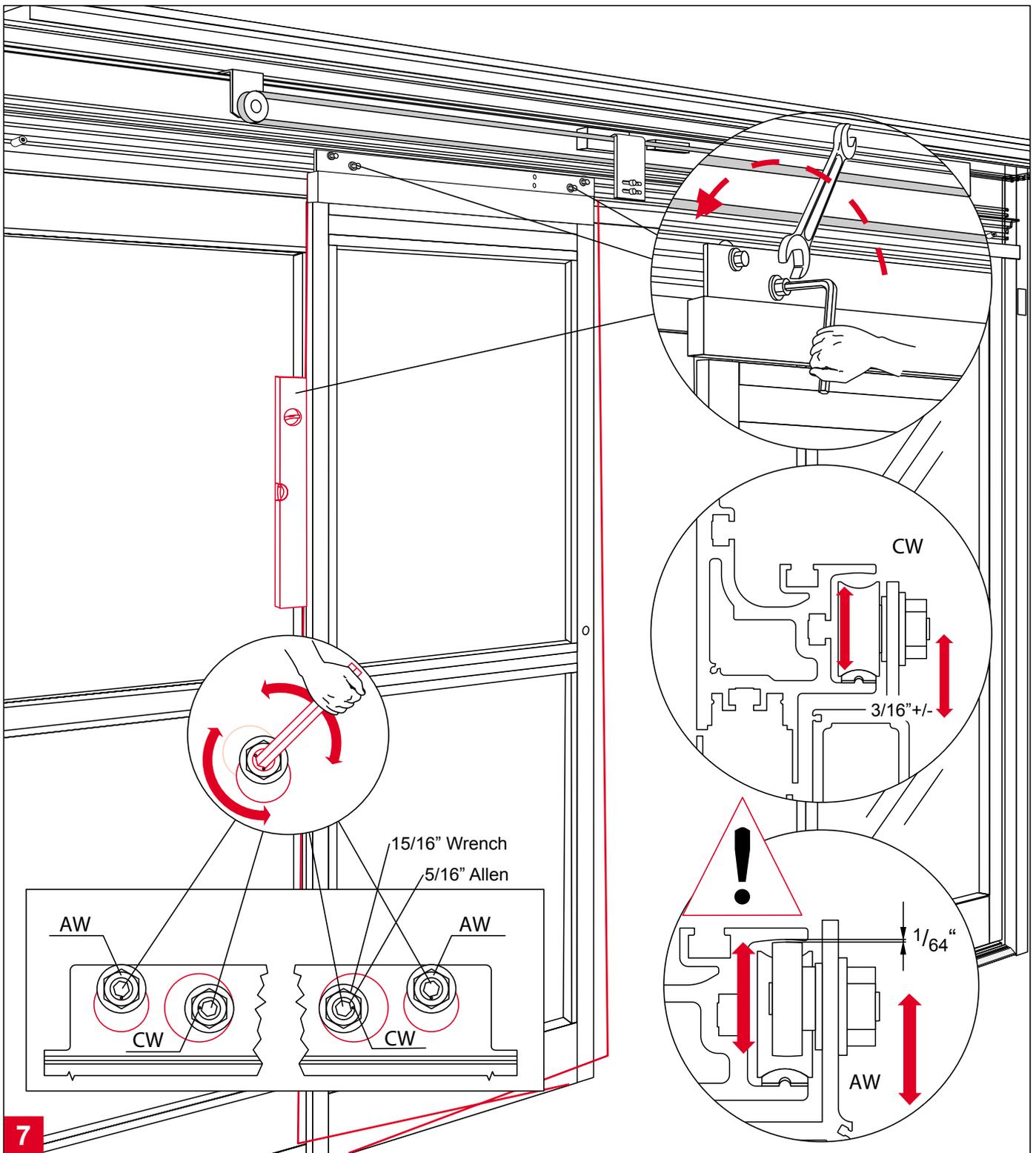
7 Vertical Alignment for SX panel

Using the eccentric carrier wheel (CW), and the anti-riser wheel (AW), level the sliding panel. Tighten hex nuts to secure the adjustment.

Adjustment of the anti-riser roller:
The anti-riser roller should not contact the top track anywhere along the slide path of the door.
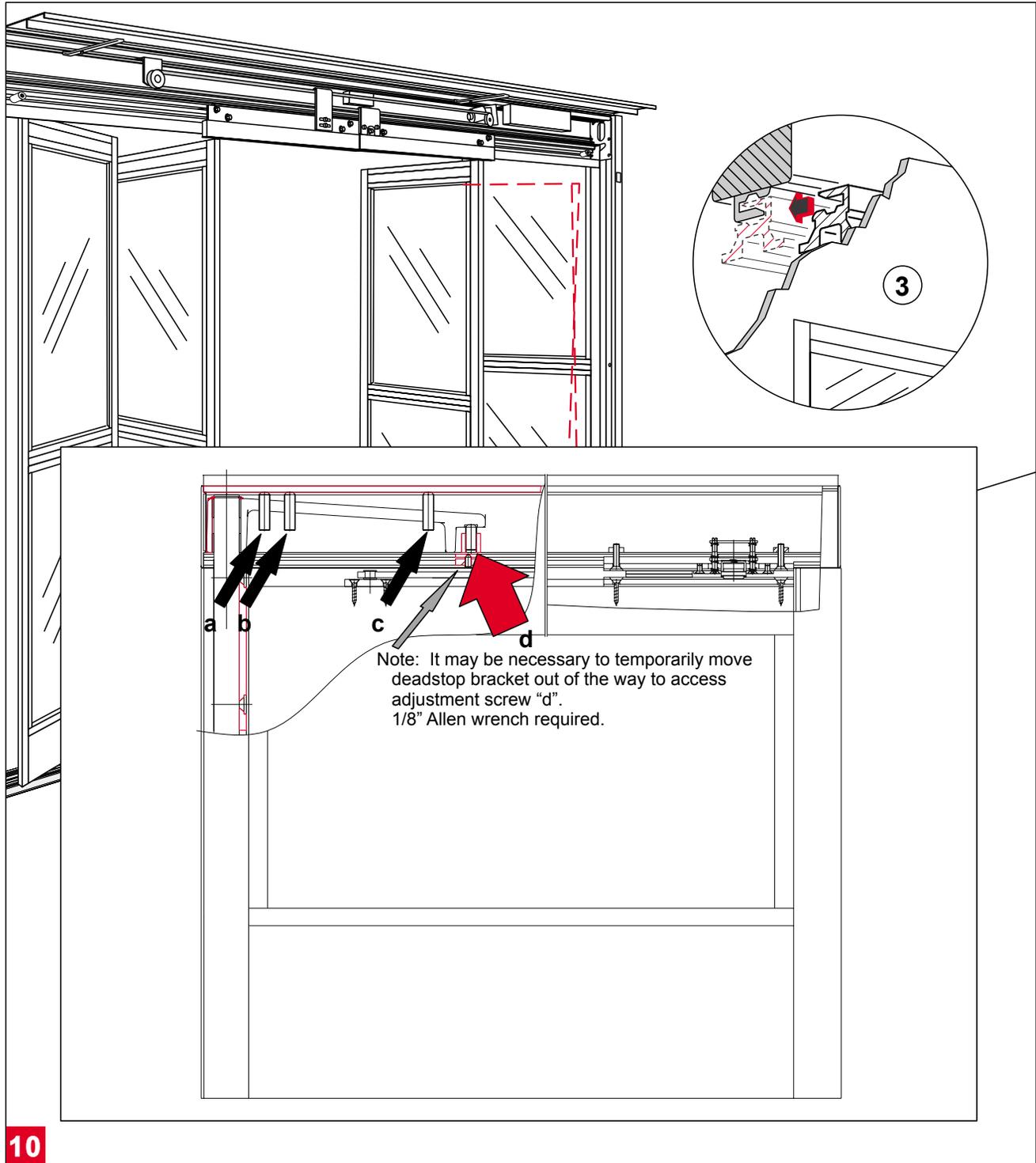
1/4-20 x 5/8"
1/4 flat washer

① 8

"SX" Panel Centerline Adjustment & "SO" Bottom Latch Installation

① With the lower belt bracket securely fastened, and the upper belt bracket in its loose position, the "SX" panels can be properly adjusted to their center position. After panels are centered, fasten upper belt bracket to carrier. (7/16" socket or wrench required.)

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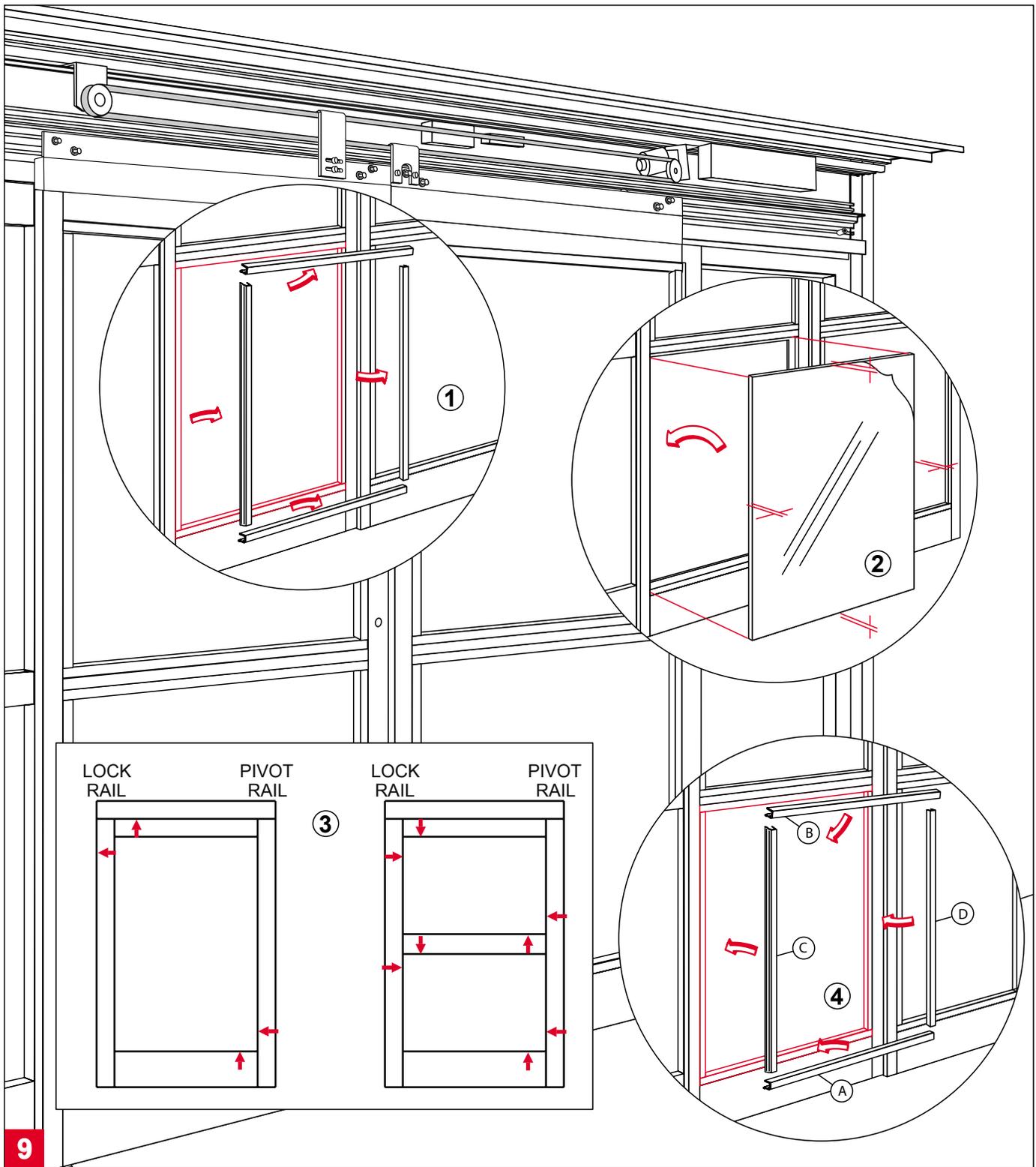
Glazing

① Remove the glass stops from exterior side (4 per opening).

② Center the glass in opening.

③ Properly block and/or cushion glass edges.

④ Press the glass stops into place, starting with the horizontal stops, then follow with the vertical stops.

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3

a b   c

d

Note: It may be necessary to temporarily move
deadstop bracket out of the way to access
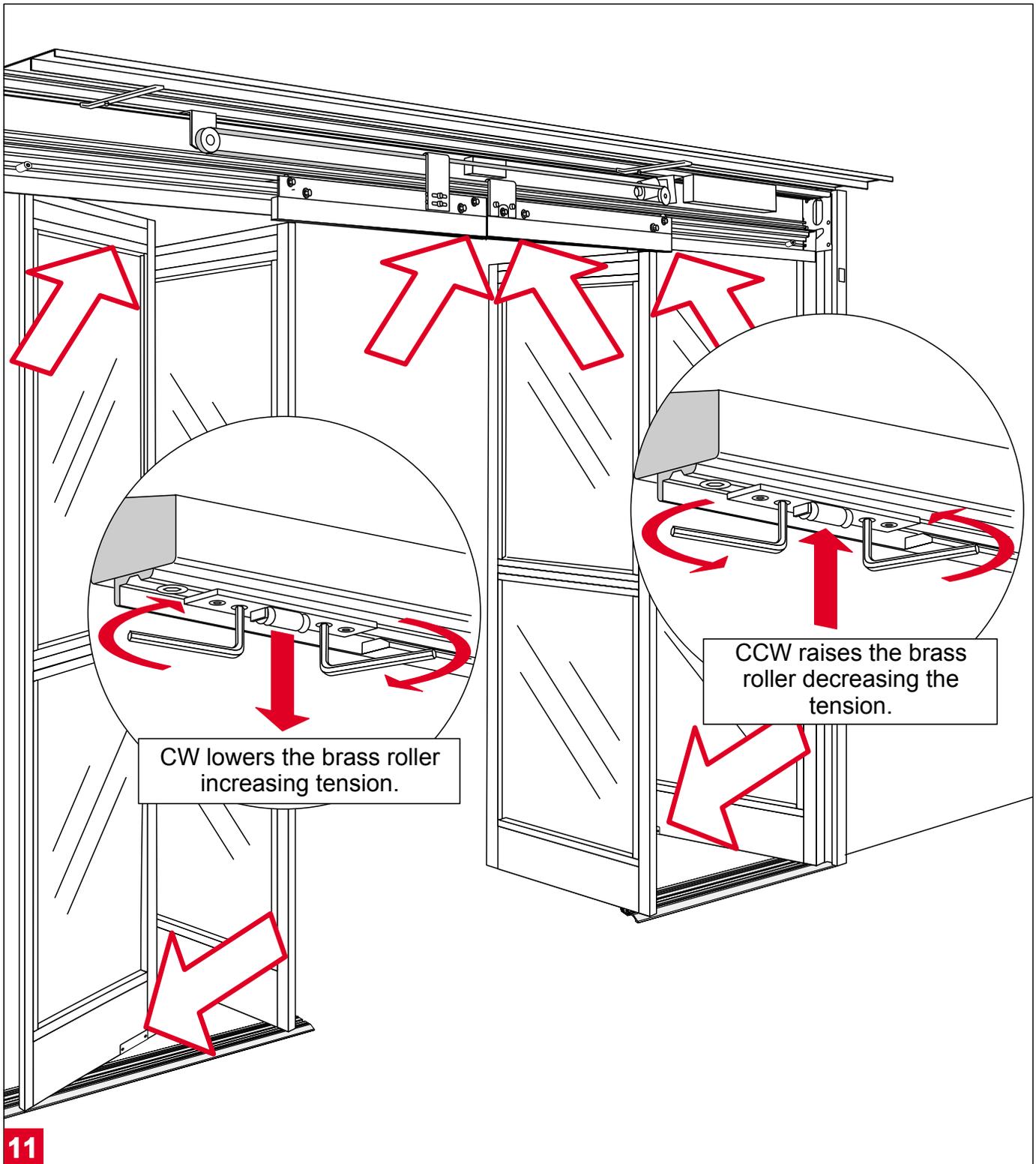adjustment screw "d".
1/8" Allen wrench required.

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Adjustment of the Breakout-Unit

1. Loosen the set screws (a, b & c) to prevent interference while adjusting door.   (7/32" Allen wrench required.)

2. Use the adjustment screw (d) to lift (CW), or lower (CCW), the leading edge of door.

3. Continue adjustment until the re-latch profiles are properly aligned.

4. Tighten all set screws (a, b & c) until tight and secure.

Recheck the latched position alignment and readjust as necessary.

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CW lowers the brass roller increasing tension.

CCW raises the brass roller decreasing the tension.

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Adjustment of the Roller Catch

Align the roller catches as illustrated, using the adjustment screws.   (3mm Allen wrench tool required.)

Pay close attention to the disengagement, or breakout force.

Do not exceed ANSI A156.10 standards.

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Door opening

3/4 inch ⚠️

C_L
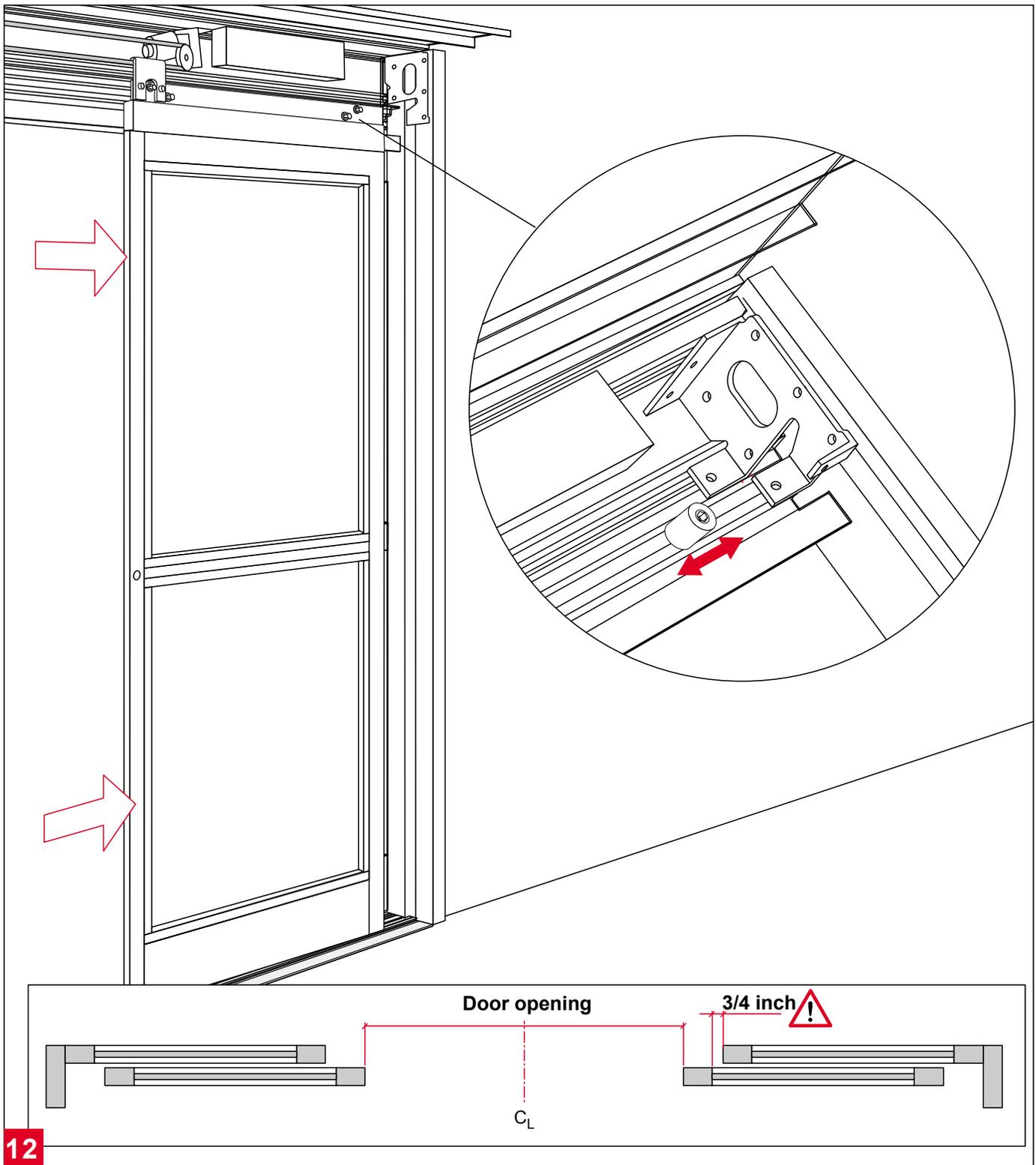
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## Adjustment of the End Stops

End stops are installed at the factory. Adjustments should be made by loosening the bolt and sliding the stop to the appropriate position. Be sure adjustments are made symmetrically to the door opening, while providing proper finger safety per ANSI A156.10 Standards.   (½" socket or wrench required.)

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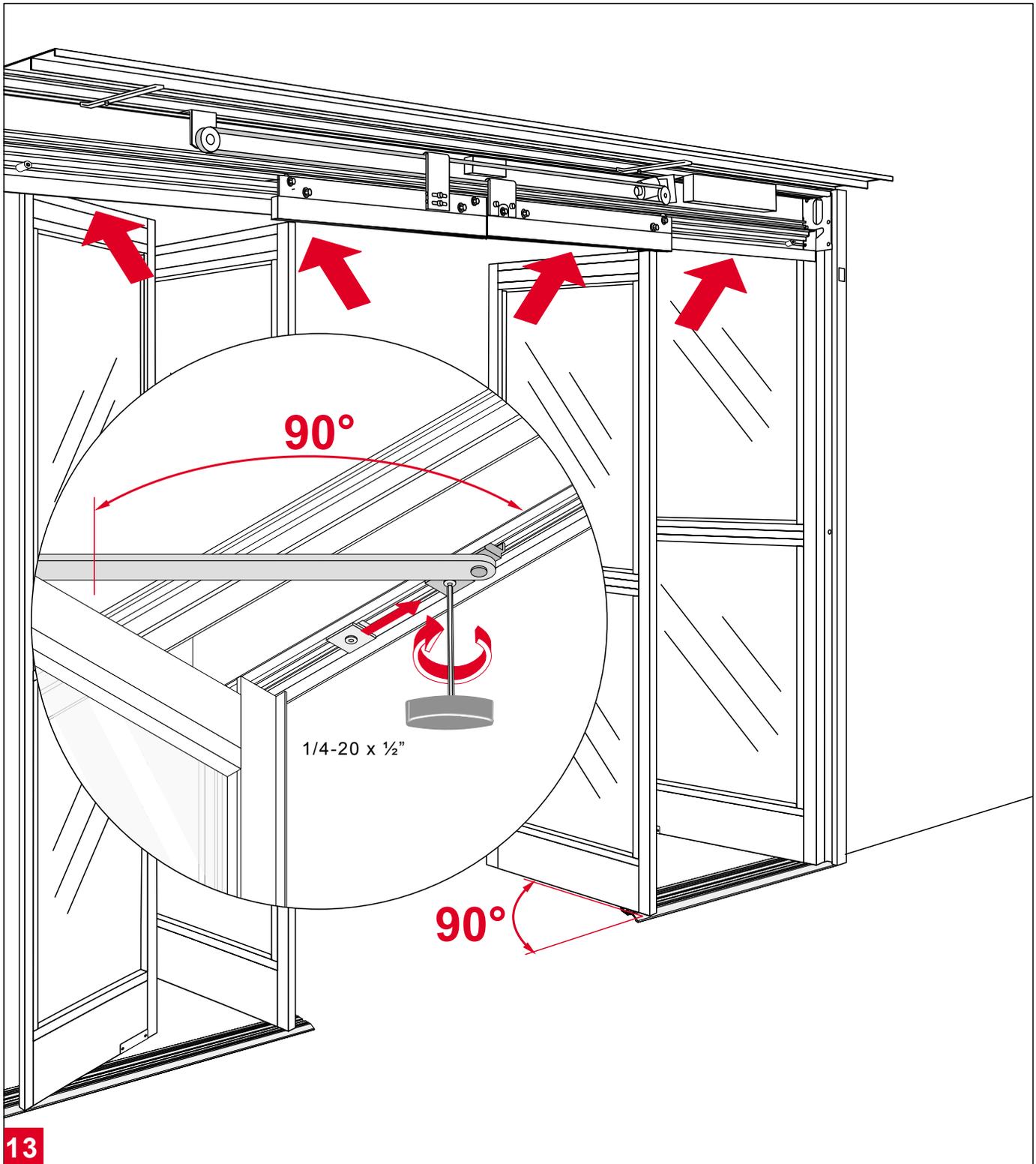
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"SX" and "SO" Panel Breakout Adjustment

1. Open "SX" & "SO" panels to 90°.
2. Move arm stop blocks to engage arm.   (1/8" Allen wrench required.)
3. Secure stop blocks.

#10-24 x ½"
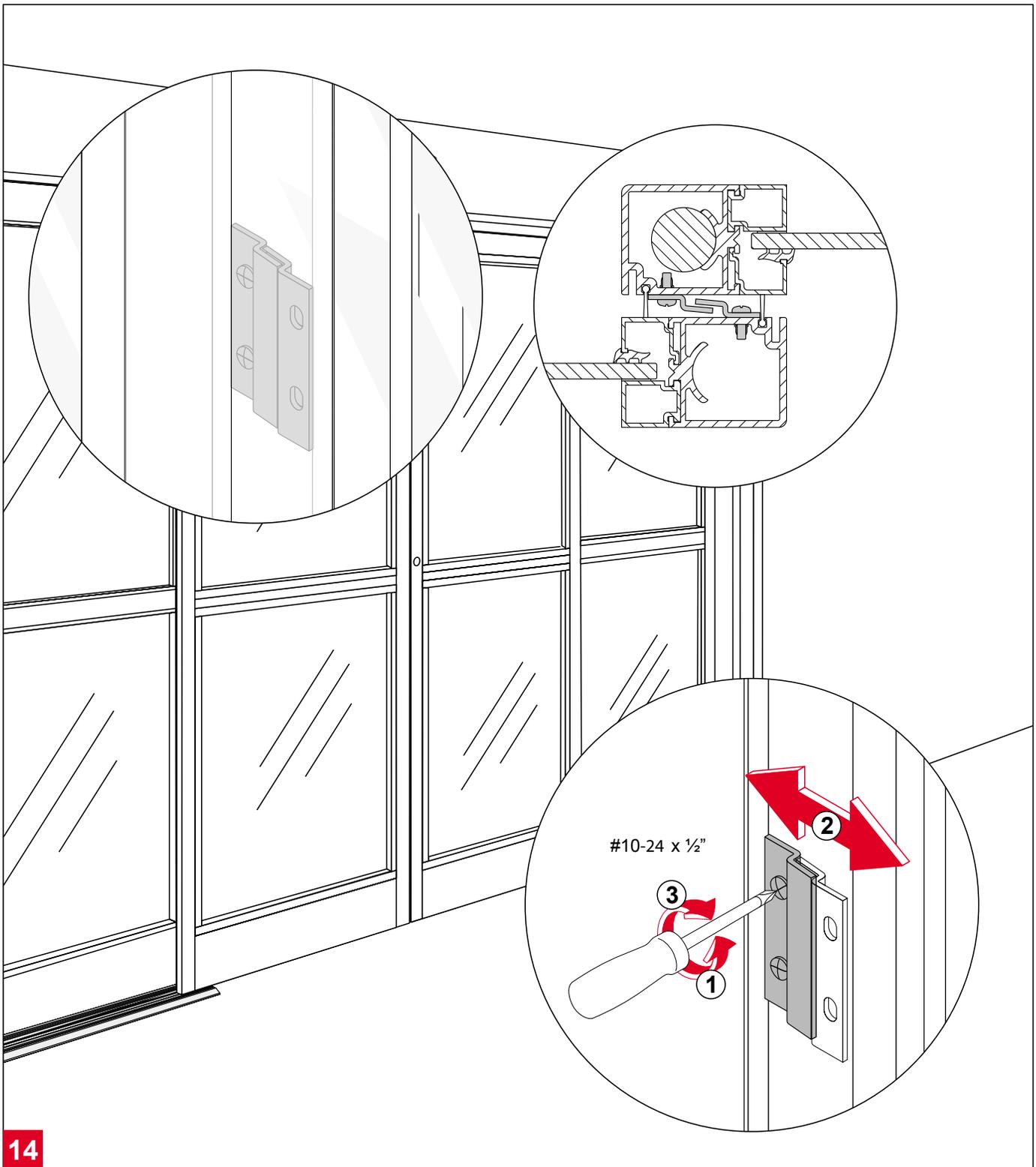
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"SO" Interlock Clip Adjustment

① Loosen "SO" interlock clip fasteners.

② Slide interlock clip on "SO" panel, or "SX" panel, as necessary. Correct adjustment prevents the "SO" panel from breaking out when the "SX" panels are closed, but allows the "SX" panels to breakout when closed.

③ Secure all fasteners when doors are properly adjusted.   (Phillips screwdriver required.)