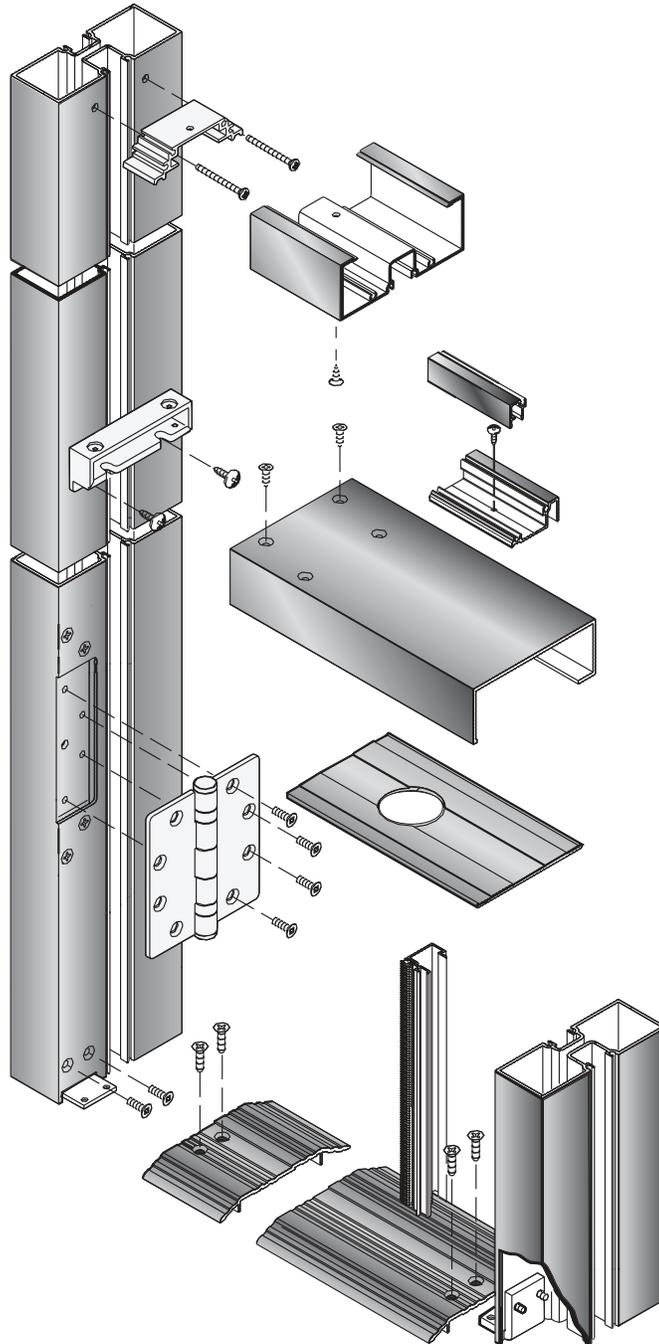


# INSTALLATION INSTRUCTIONS

## SERIES 250, 400, 550, AND FLUSH PANEL ENTRANCE DOORS



Phone: (800) 262-5151 • Fax: (866) 262-3299  
crlaurence.com • usalum.com • crl-arch.com

# HANDLING, STORAGE, AND PROTECTION OF ALUMINUM

The following precautions are recommended to protect the material against damage. Following these precautions will help ensure early acceptance of your products and workmanship.

**A. HANDLE CAREFULLY.**

All aluminum materials at job site must be stored in a safe place, well removed from possible damage by other trades. Cardboard wrapped or paper interleaved materials must be kept dry.

**B. CHECK ARRIVING MATERIALS.**

Check for quantity counts and keep records of where various materials are stored.

**C. KEEP MATERIALS AWAY FROM WATER, MUD, AND SPRAY.**

Prevent cement, plaster, or other materials from damaging the finish.

**D. PROTECT THE MATERIALS AFTER ERECTION.**

Protect erected frame with polyethylene or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions, and acid based materials used to clean masonry are harmful to the finish. ***If any of these materials come in contact with the aluminum, immediately remove with water and mild soap.***

The rapidly changing technology within the architectural aluminum products industry demands that C.R. Laurence/U.S. Aluminum reserve the right to revise, discontinue, or change any product line, specification, or electronic media without prior written notice.

**NOTE:** Dimensions in parentheses ( ) are millimeters unless otherwise noted.

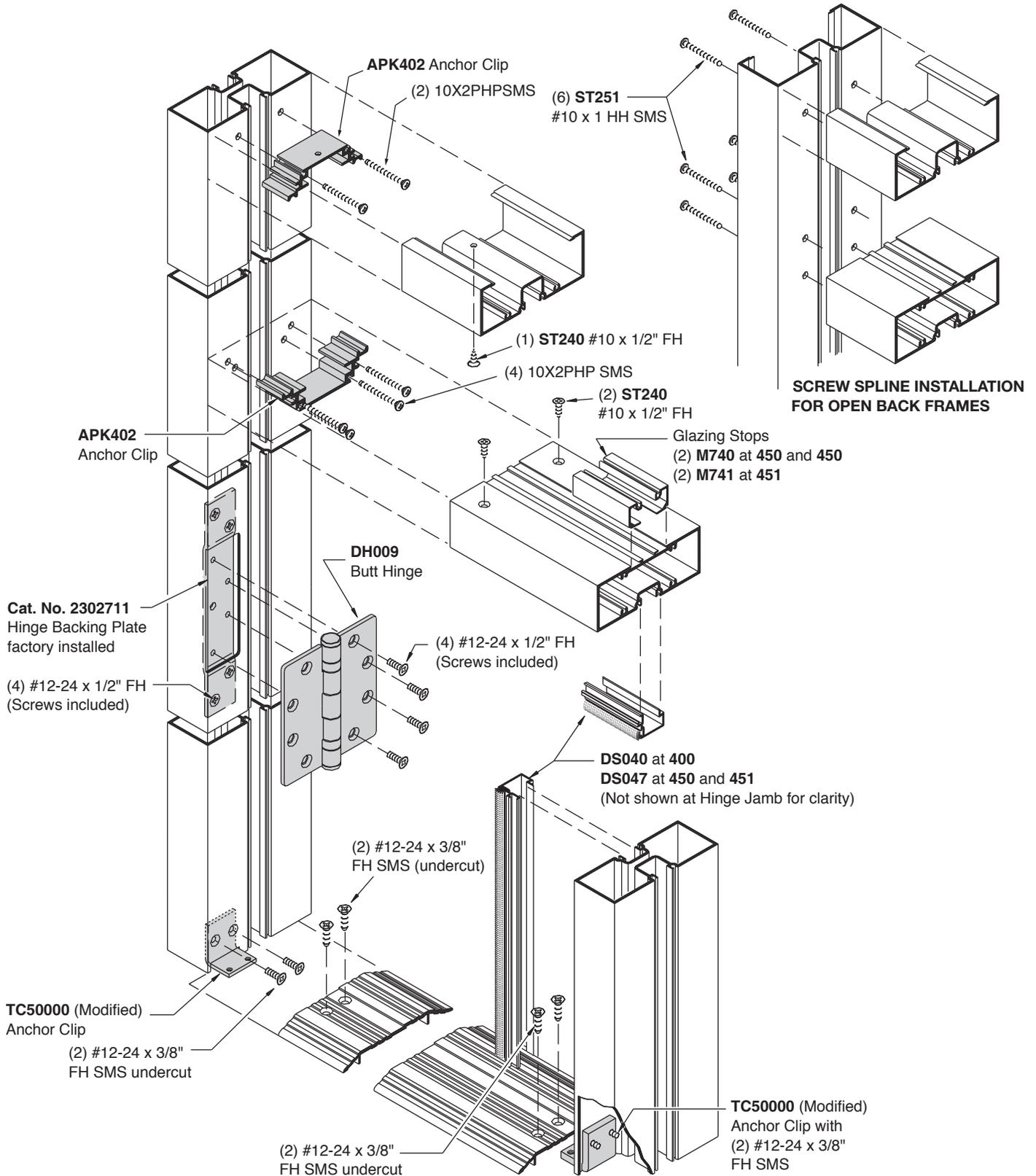
# GENERAL INSTALLATION NOTES

## RECOMMENDED GUIDELINES FOR ALL INSTALLATIONS:

- 1. REVIEW CONTRACT DOCUMENTS.** Check shop drawings, installation instructions, architectural drawings and shipping lists to become thoroughly familiar with the project. The shop drawings take precedence and include specific details for the project. Note any field verified notes on the shop drawings prior to installing. The installation instructions are of a general nature and cover most conditions.
- 2. INSTALLATION.** All materials are to be installed plumb, level, and true.
- 3. BENCH MARKS.** All work should start from bench marks and/or column lines as established by the architectural drawings and the general contractor with guaranteed accuracy. Working from these datum points and lines determine:
  - a) The plane of the wall in reference to offset lines provided on each floor.
  - b) The finish floor lines in reference to bench marks on the outer building columns.
  - c) Mullion spacing from both ends of masonry opening to prevent dimensional build-up of daylight opening.
- 4. FIELD WELDING.** All field welding must be adequately shielded to avoid any splatter on glass or aluminum. Results will be unsightly and/or structurally unsound. Advise general contractor and other trades accordingly. All field welds of steel anchors must receive touch-up paint (zinc chromate) to avoid rust.
- 5. SURROUNDING CONDITIONS.** Make certain that construction which will receive your materials is in accordance with the contract documents. If not, notify the general contractor in writing and resolve differences before proceeding with work.
- 6. ISOLATION OF ALUMINUM.** Aluminum to be placed in direct contact with uncured masonry or incompatible materials should be isolated with a heavy coat of zinc chromate or bituminous paint.
- 7. SEALANTS.** Sealants must be compatible with all materials with which they have contact with (full or incidental), including other sealant surfaces. It is the sole responsibility of the glass company to consult the sealant manufacturer for recommendations regarding joint size, shelf life, compatibility, cleaning, priming, tooling, adhesion, etc. It is the responsibility of the **Glazing Contractor** to submit a statement from the sealant manufacturer indicating that glass and glazing materials have been tested for compatibility and adhesion with glazing sealants, and interpreting test results relative to material performance, including recommendations for primers and substrate preparation required to obtain adhesion. The chemical compatibility of all glazing materials and framing sealants with each other and with like materials used in glass fabrication must be established. ***This is required on every project.***
- 8. FASTENING.** Within the body of these instructions "fastening" means any method of securing one part to another or to adjacent materials. Only those fasteners used within the system are specified in these instructions. Due to the varying perimeter conditions and performance requirements, perimeter and anchor fasteners are not specified in these instructions. For perimeter and anchor fasteners refer to the shop drawings or consult the fastener supplier.
- 9. BUILDING CODES.** Due to the diversity in state/provincial, local, and federal laws and codes that govern the design and application of architectural products, it is the responsibility of the individual architect, owner, and installer to assure that products selected for use on projects comply with all the applicable building codes and laws. U.S. Aluminum exercises no control over the use or application of its products, glazing materials, and operating hardware, and assumes no responsibility thereof.
- 10. EXPANSION JOINTS.** Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at normal size. Actual dimensions may vary due to perimeter conditions and/or difference in metal temperature between the time of fabrication and the time of installation. Gaps between expansion members should be based on temperature at time of installation.
- 11. RACK TEST.** As soon as a representative amount of the wall has been glazed (500 square feet or 46.5 m<sup>2</sup>) a rack test should be conducted in accordance with AAMA 502-08 specifications to check the installation. On all jobs the rack test should be repeated every 500 square feet (46.5 m<sup>2</sup>) during the glazing operation.
- 12. COORDINATION WITH OTHER TRADES.** Coordinate with the general contractor any sequence with other trades which offset curtain wall installation (i.e. fire proofing, back-up walls, partitions, ceilings, mechanical ducts, converters, etc.).
- 13. CARE AND MAINTENANCE.** Final cleaning of exposed aluminum surfaces should be done in accordance with AAMA 609.1 for anodized aluminum and 610.1 for painted aluminum..

# FRAME UNIT FOR BUTT HUNG DOOR WITH SURFACE CLOSER

## 450 FRAME SHOWN 400 AND 451 SIMILAR

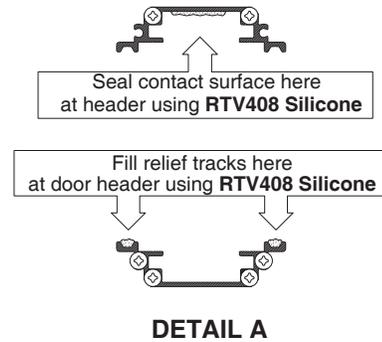


NOT TO SCALE

# SERIES 250, 400, 550, AND FLUSH PANEL ENTRANCE DOORS

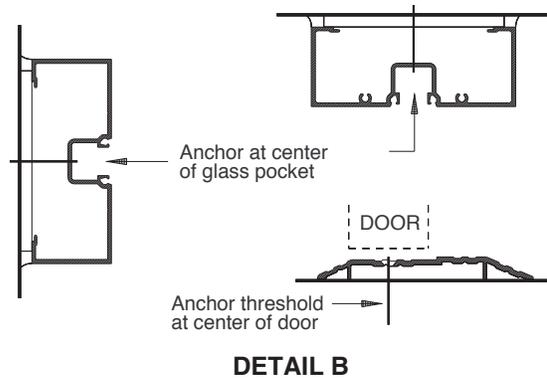
## ASSEMBLY INSTRUCTIONS:

1. Verify opening size. Allow for 1/4" (6.4) shim and caulk space at sides, and 1/2" (12.7) space at top of frame. (When using optional **AF100** sill flashing, allow 1/4" (6.4) shim space at top of frame).
2. If required, cut off top of vertical jambs to adjust frame to desired height.
3. Cut templates from instructions. Align edge of template with top of vertical and drill holes for head clips.
4. Attach anchor clips for head, door header, and threshold to jambs with provided screws.
5. Butter contact surface of anchor clips with **RTV408 Silicone Sealant**. See **DETAIL A**
6. Assemble head and door header to jambs as shown.
7. Install hinges to door jamb(s).

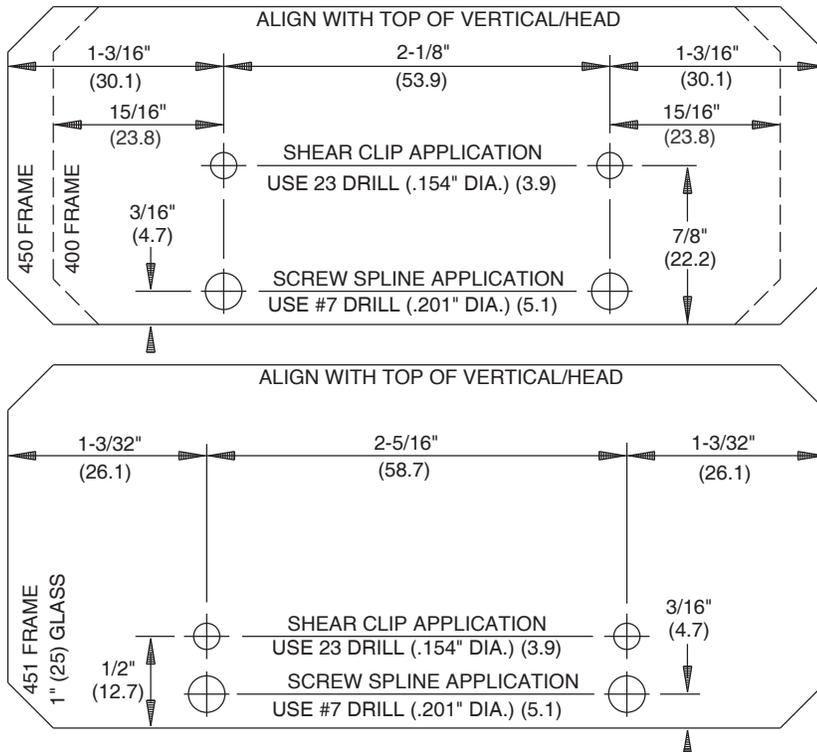


## INSTALLATION INSTRUCTIONS:

1. Set frame into opening plumb and square.
2. Drill holes for #12 installation screws starting 6" (152.4) from corners and not more than 36" (914.4) O.C.
3. Secure jambs and head to opening and threshold to floor with #12 screws. See **DETAIL B**
4. Snap door stop with weatherstrip into jambs and door header. Jamb stops run through.
5. Place setting blocks in door header at quarter or eighth points as required, and glaze transom. Glazing sash is required vertically at Series 451 transom.
6. Install glass stops with glazing gaskets on both sides of glass.
7. Roll-in glazing gaskets for jambs and header.



### TEMPLATES ARE FOR EXTREME HEAD ONLY

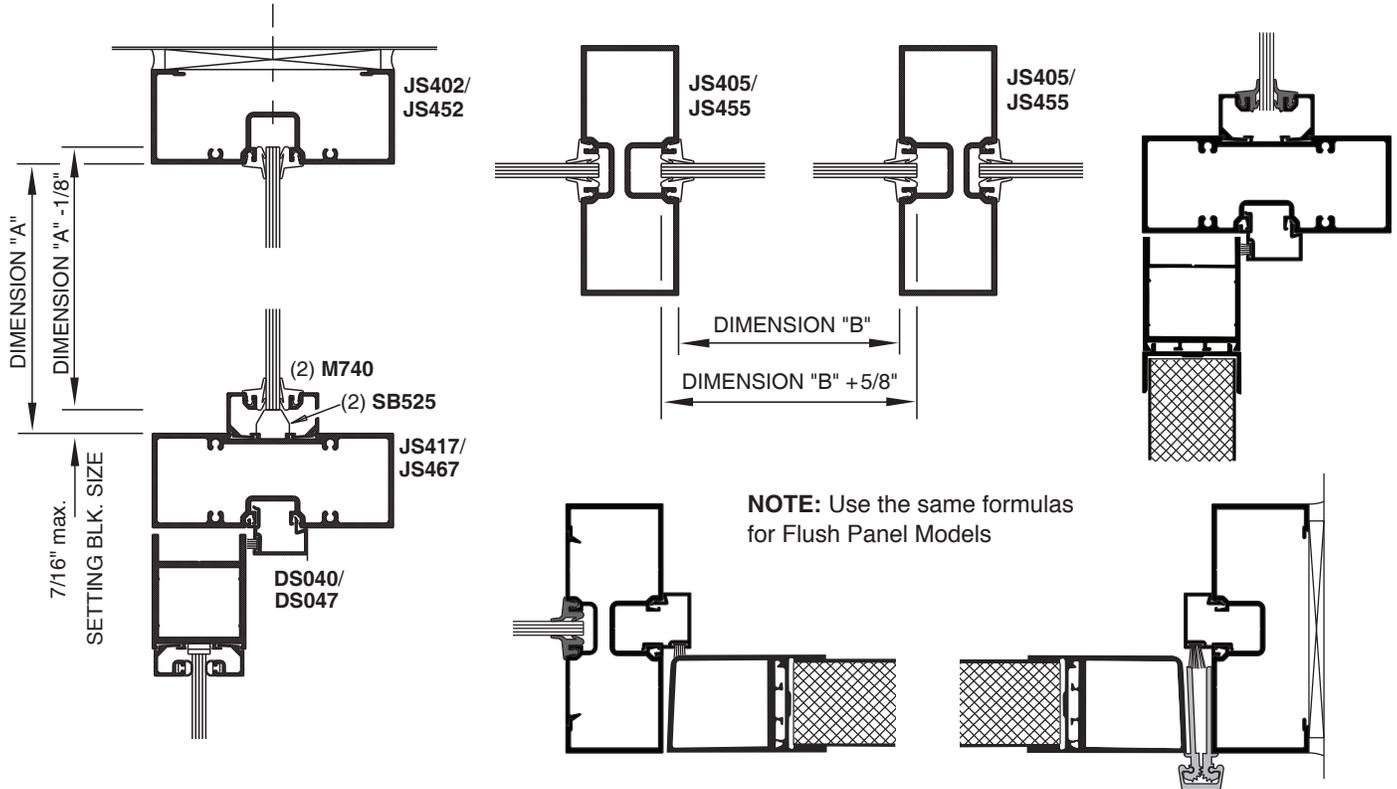


**NOTE:** Do not cut templates from this manual, templates are supplied inside frame boxes.

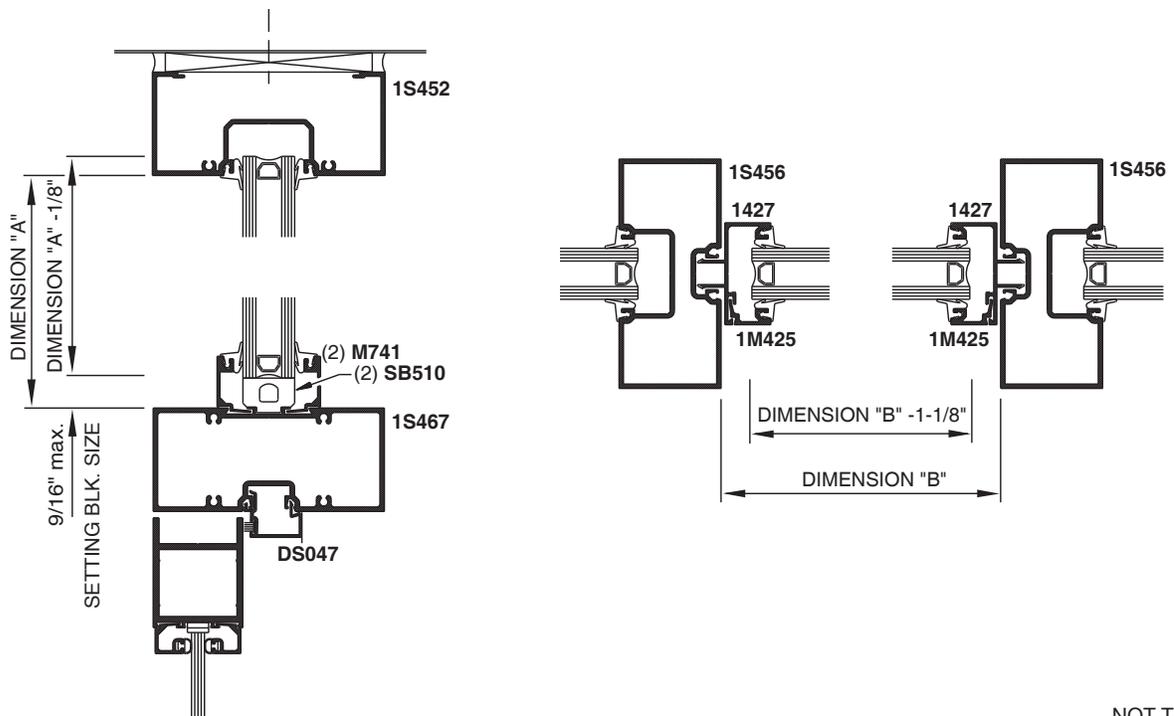
NOT TO SCALE

# GLASS SIZE FORMULA AT TRANSOM

## DOOR AND FRAME PREPARATION SERIES 400 AND 450



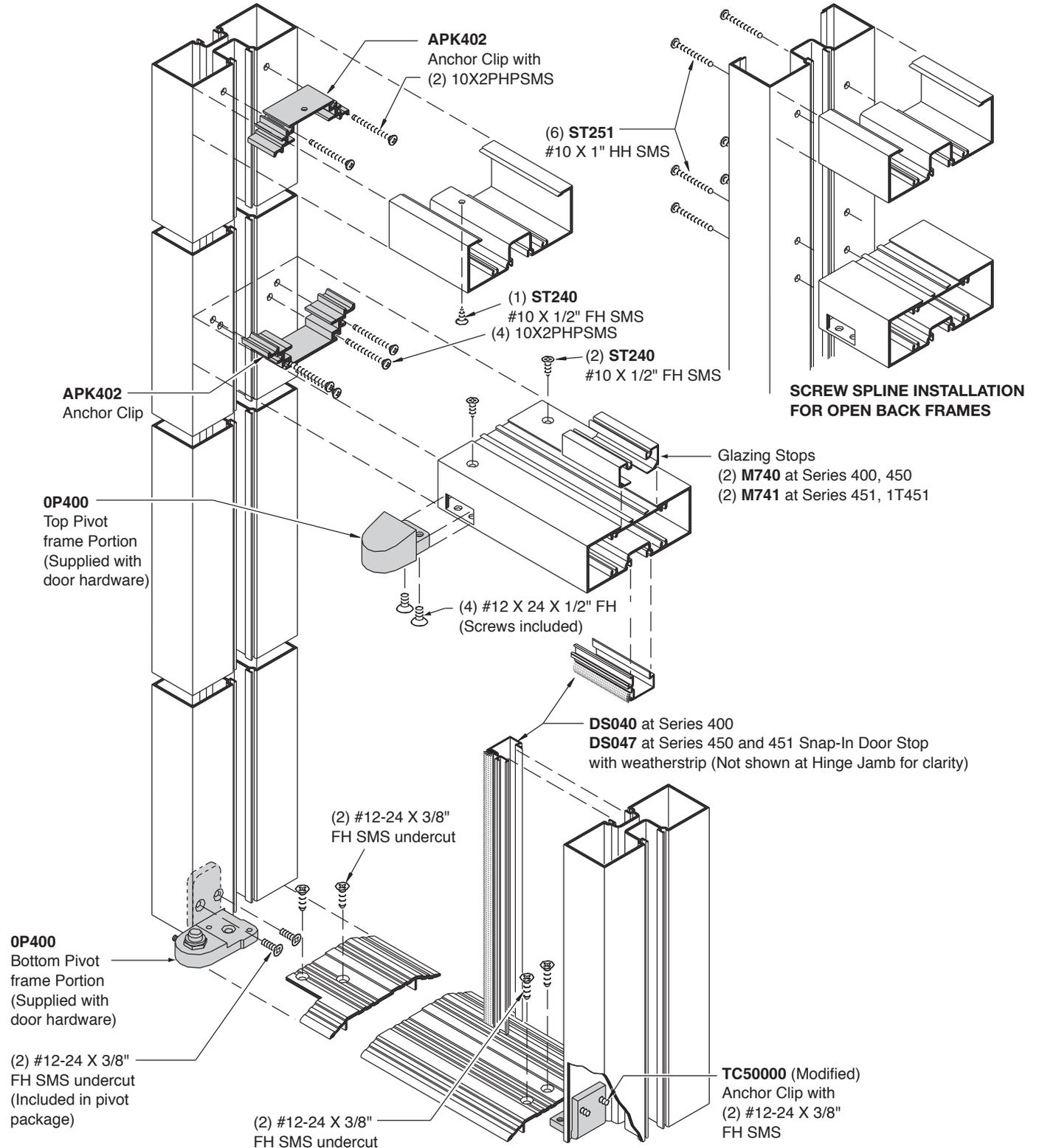
## SERIES 451



NOT TO SCALE

# FRAME UNIT FOR OFFSET PIVOT DOOR WITH SURFACE CLOSER

450 TUBULAR FRAME SHOWN  
400 AND 451 SIMILAR

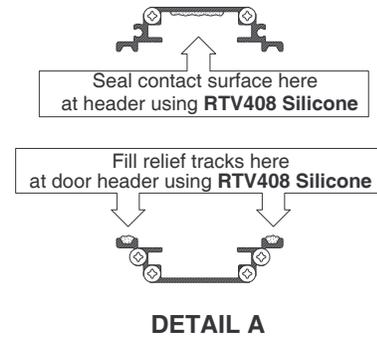


NOT TO SCALE

# SERIES 250, 400, 550, AND FLUSH PANEL ENTRANCE DOORS

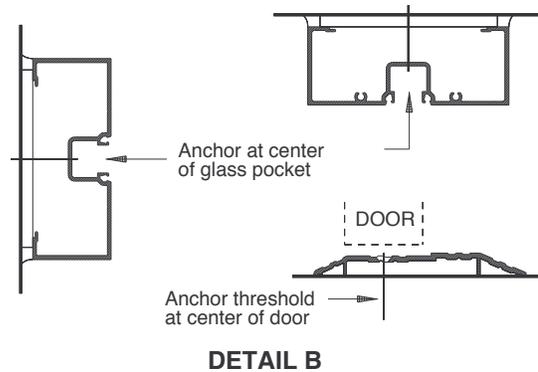
## ASSEMBLY INSTRUCTIONS:

1. Verify opening size. Allow for 1/4" (6.4) shim and caulk space at sides, and 1/2" (12.7) space at top of frame. (When using optional **AF100** sill flashing, allow 1/4" (6.4) shim space at top of frame).
2. If required, cut off top of vertical jambs to adjust frame to desired height.
3. Cut templates from instructions. Align edge of template with top of vertical and drill holes for head clips.
4. Attach anchor clips for head, door header, and threshold to jambs with provided screws.
5. Butter contact surface of anchor clips with **RTV408 Silicone Sealant**. See **DETAIL A**
6. Assemble head and door header to jambs as shown.
7. Attach bottom pivot(s) to jamb(s), then attach threshold to assembly.
8. Install top pivot to door header.

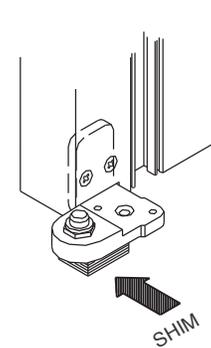
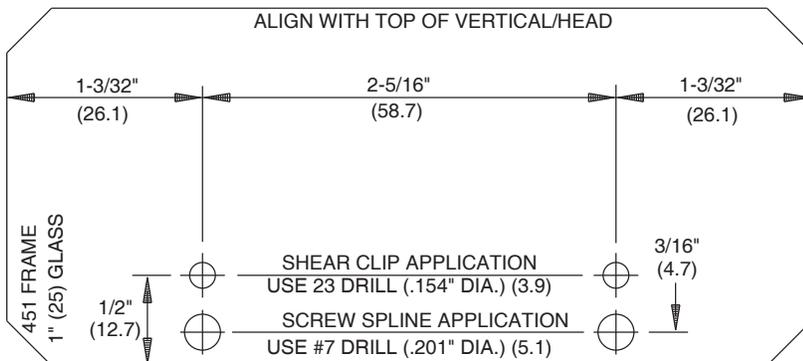
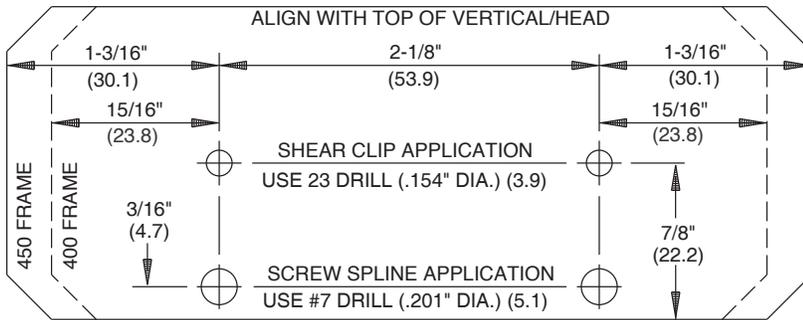


## INSTALLATION INSTRUCTIONS:

1. Set frame into opening plumb and square.
2. Drill holes for #12 installation screws starting 6" (152.4) from corners and not more than 24" (609.6) O.C.
3. Secure jambs and head to opening and threshold to floor with #12 screws. See **DETAIL B**
4. If pivot is not supported by finished floor, block as required. See **DETAIL C**.
5. Snap door stops with weatherstrip into jambs and door header. Jamb stops run through.
6. For 1" (25) glazing, snap jamb sash into jambs. Jamb sash runs through.
7. Place glass setting blocks in door header at quarter or eighth points as required and glaze transom.
8. Install sash glazing bead.
9. Roll-in glazing gaskets for jambs and header.



### TEMPLATES ARE FOR EXTREME HEAD ONLY



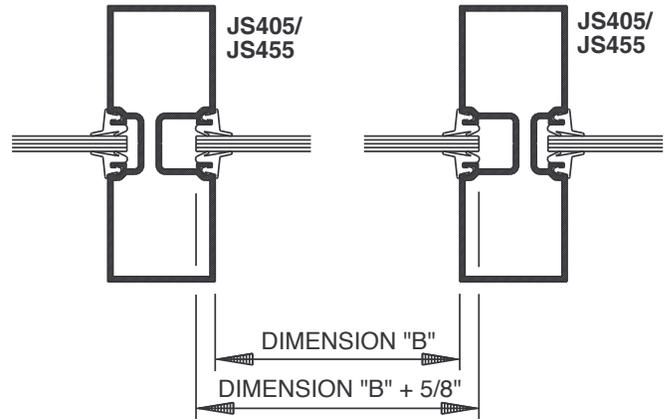
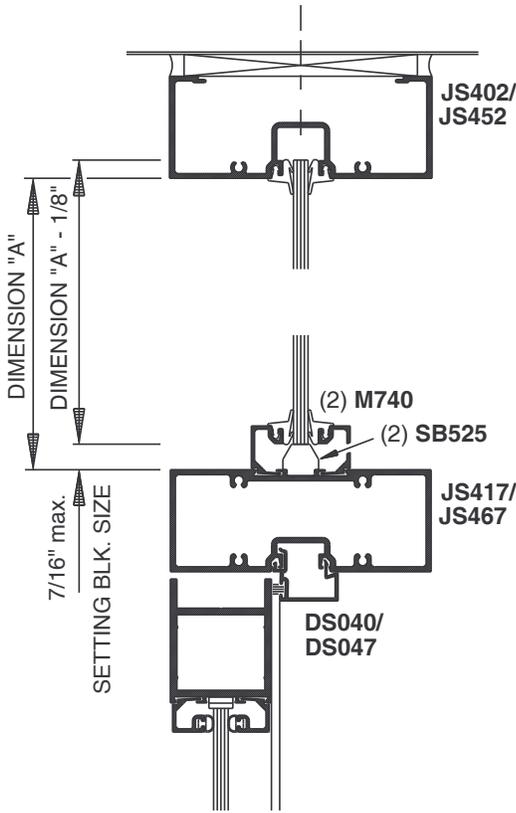
**DETAIL C**

**NOTE:** Do not cut templates from this manual, templates are supplied inside frame boxes.

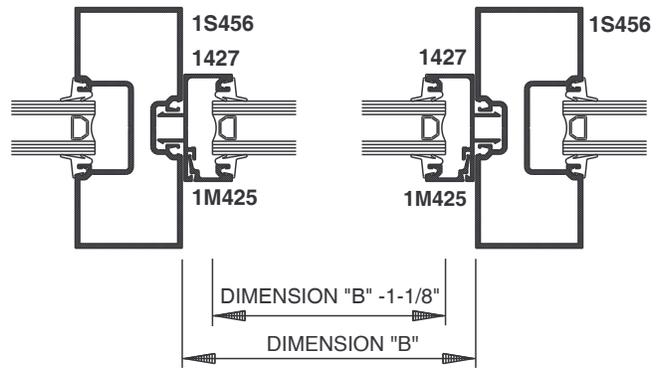
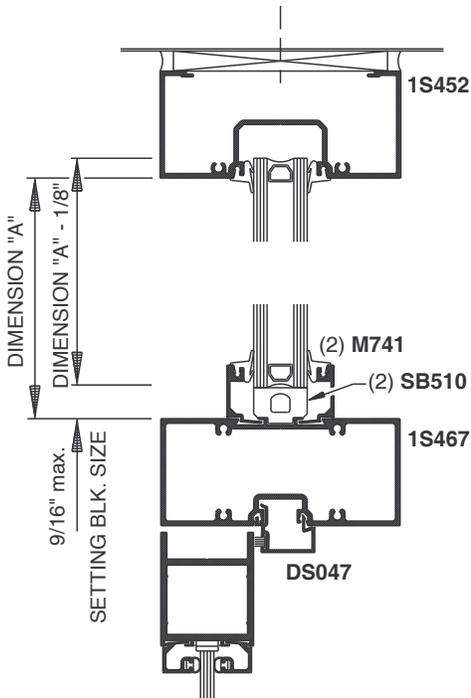
NOT TO SCALE

# GLASS SIZE FORMULA AT TRANSOM (TUBULAR FRAME SHOWN, OPEN BACK SIMILAR)

## SERIES 400 AND 450



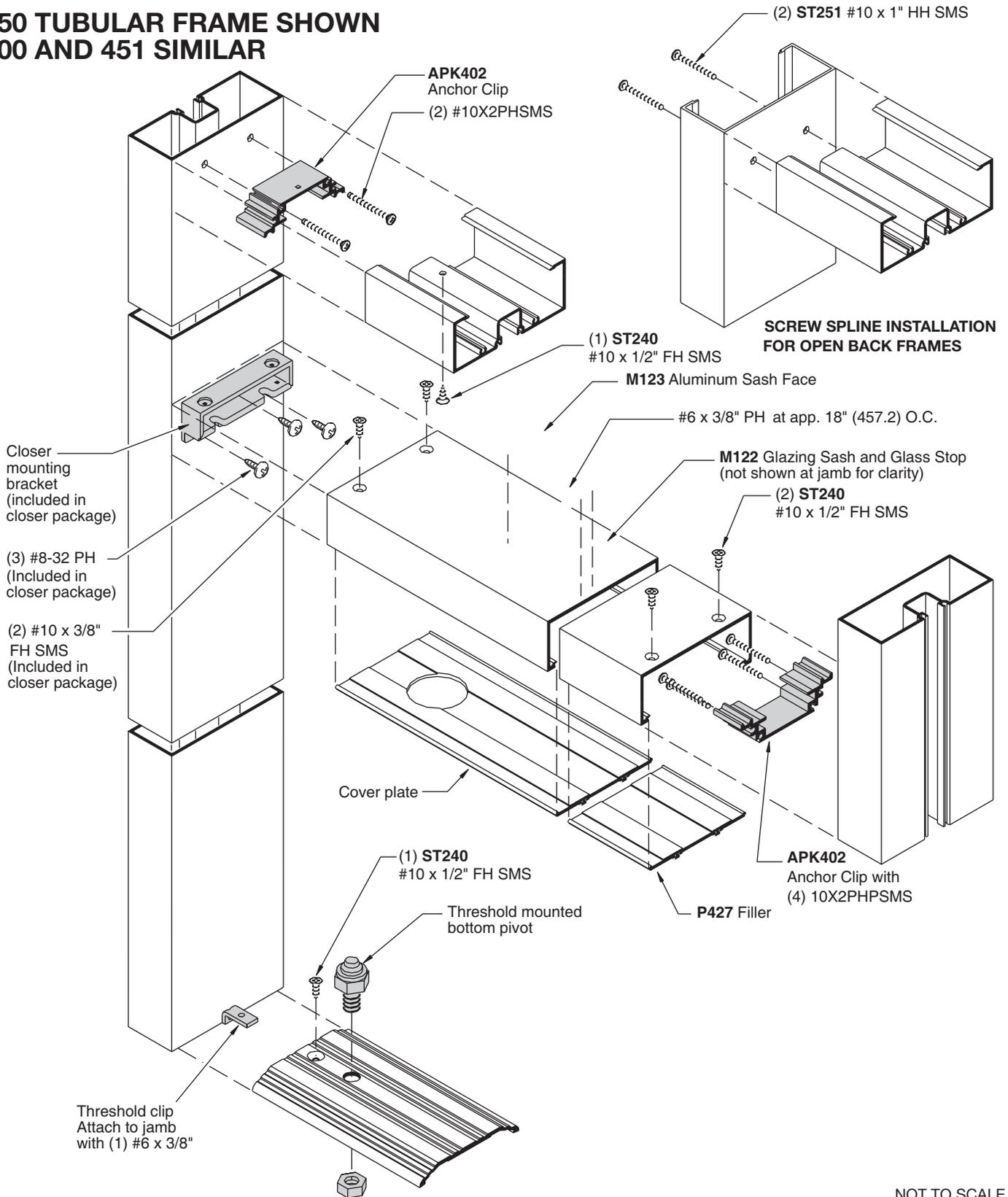
## SERIES 451



NOT TO SCALE

# FRAME UNIT FOR CENTER HUNG DOOR WITH OVERHEAD CONCEALED CLOSER

450 TUBULAR FRAME SHOWN  
400 AND 451 SIMILAR

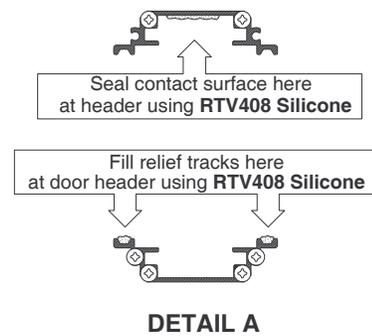


NOT TO SCALE

# SERIES 250, 400, 550, AND FLUSH PANEL ENTRANCE DOORS

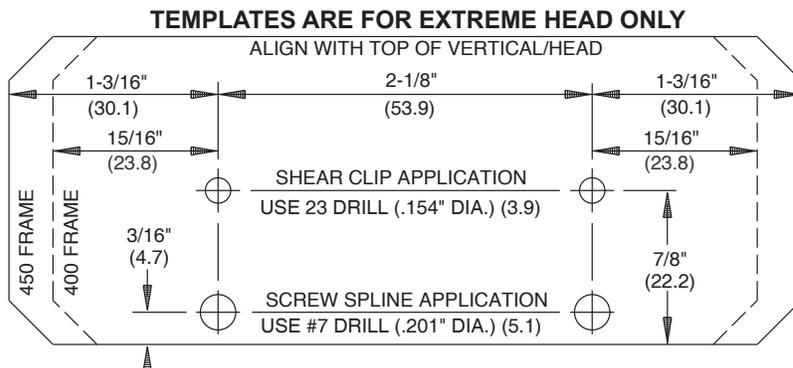
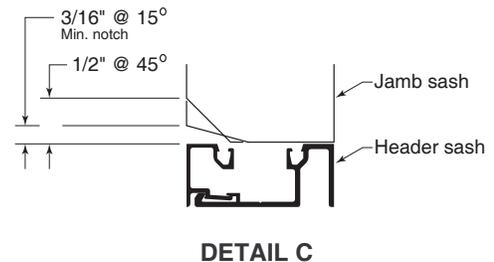
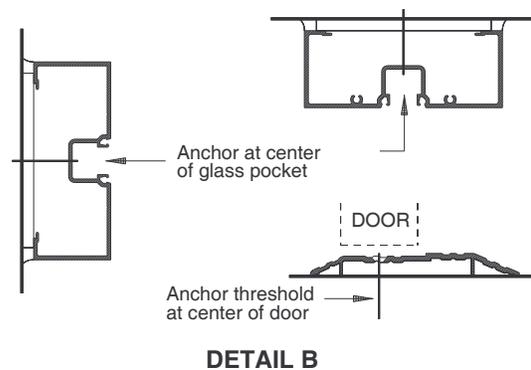
## ASSEMBLY INSTRUCTIONS:

1. Verify opening size. Allow for 1/4" (6.4) shim and caulk space at sides, and 1/2" (12.7) space at top of frame. (When using optional **AF100** sill flashing, allow 1/4" (6.4) shim space at top of frame).
2. If required, cut off top of vertical jambs to adjust frame to desired height.
3. Cut templates from instructions. Align edge of template with top of vertical and drill holes for head clips.
4. Attach anchor clips for head, door header, and threshold to jambs with provided screws.
5. Butter contact surface of anchor clips with **RTV408 Silicone Sealant**. See **DETAIL A**
6. Assemble head and door header to jambs as shown.
7. Install bottom pivot in threshold.



## INSTALLATION INSTRUCTIONS:

1. Set frame into opening plumb and square.
2. Drill holes for #12 installation screws starting 6" (152.4) from corners and not more than 24" (609.6) O.C.
3. Secure jambs and head to opening and threshold to floor with #12 screws. See **DETAIL B**
4. Install transom sash. Horizontal sash runs through at door door header. Vertical sash abuts over horizontal sash and is mitered at outside to allow for horizontal glazing bead installation. See **DETAIL C**
5. Attach sash to door header with #6 x 3/8" PH at 18" (457.2) O.C.
6. Place glass setting blocks in door header at quarter or eighth points as required and glaze transom.
7. Install sash glazing bead.
8. Roll-in glazing gaskets for jambs and header.

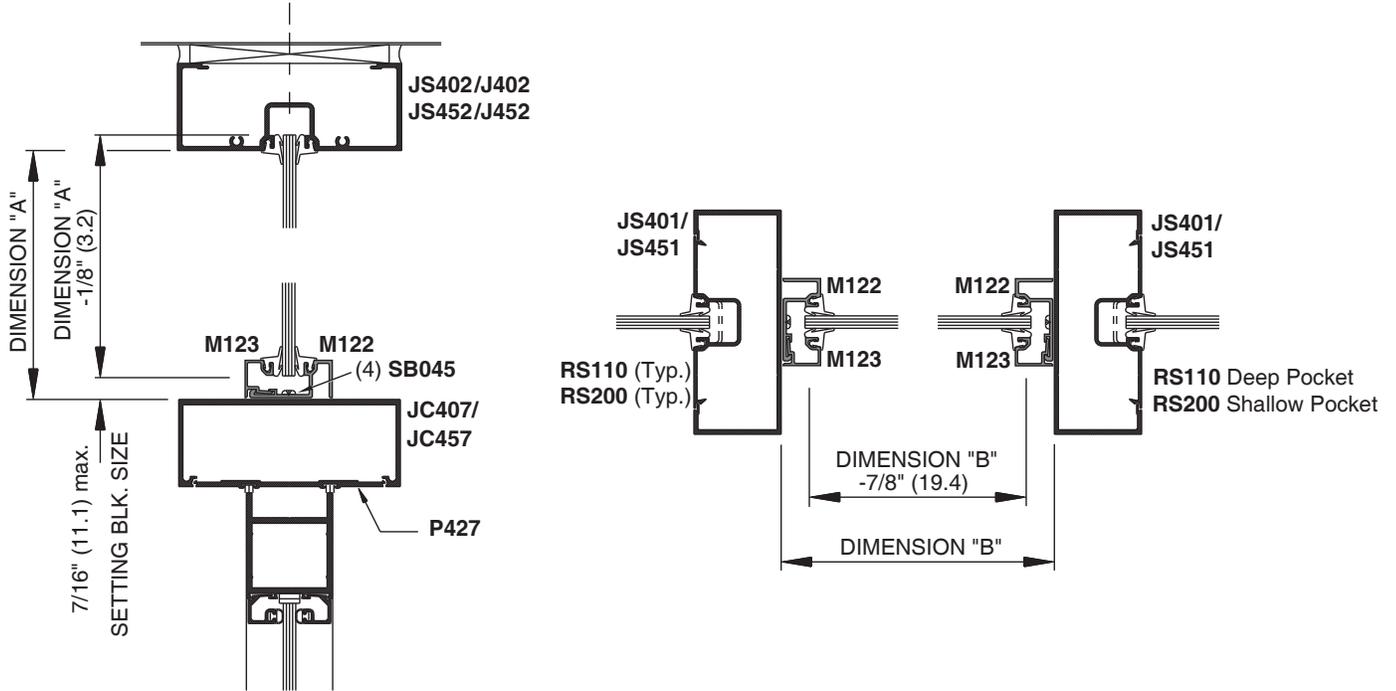


**NOTE:** Do not cut templates from this manual, templates are supplied inside frame boxes.

NOT TO SCALE

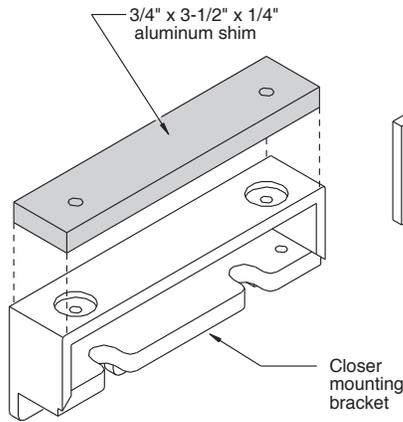
# GLASS SIZE FORMULA AT TRANSOM

(OPEN BACK FRAME SHOWN, TUBULAR SIMILAR)

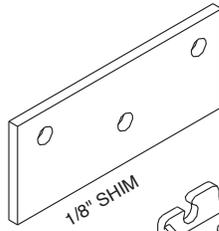


NOT TO SCALE

# HEADER FOR JACKSON OVERHEAD CONCEALED CLOSER WITH OFFSET ARM

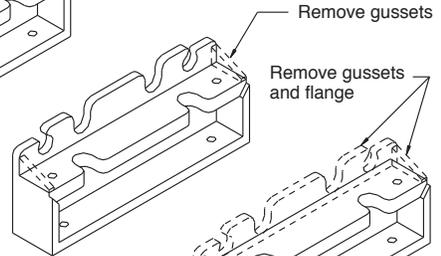


Secure closer mounting bracket to header with (2) #10-32 x 3/4" F.H.



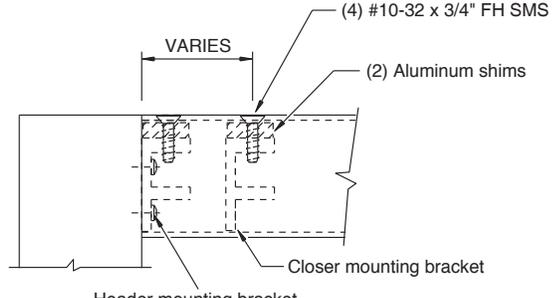
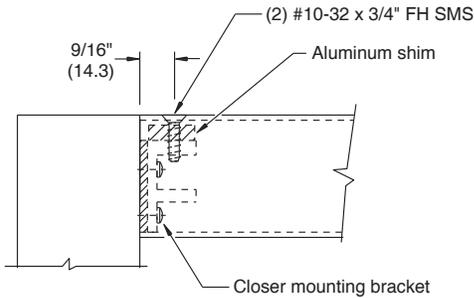
CLIPS SHOWN INVERTED TO VIEW BOTTOM AT WORK AREA

TYPE "A"  
STANDARD CLIP

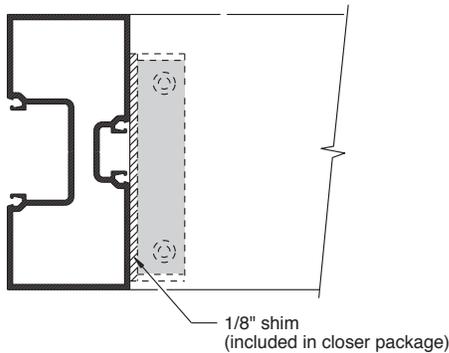


TYPE "B"  
MODIFIED CLIP

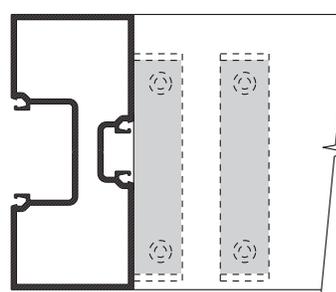
TYPE "C"  
DOUBLE MODIFIED CLIP



Header mounting bracket  
Option: **APK402** anchor clip may also be used to fasten header to jamb when using a Jackson closer with 105° swing HO and offset pivot.



JACKSON OHCC with butt hung door 90° swing

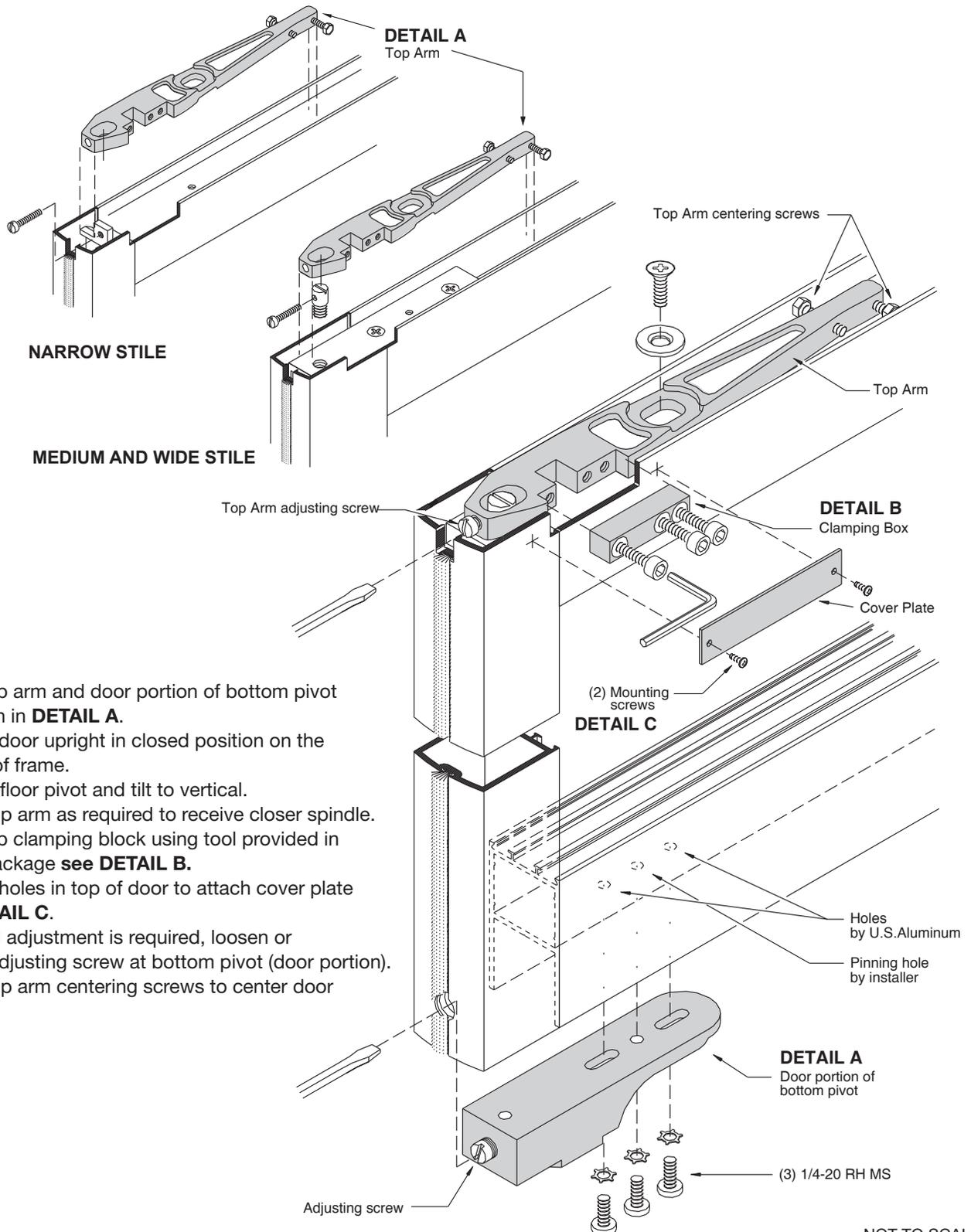


JACKSON OHCC with offset pivoted door

JACKSON OHCC with butt hung door 105° swing

NOT TO SCALE

# SIDE LOAD CENTER PIVOT DOOR WITH JACKSON OVERHEAD CONCEALED CLOSER



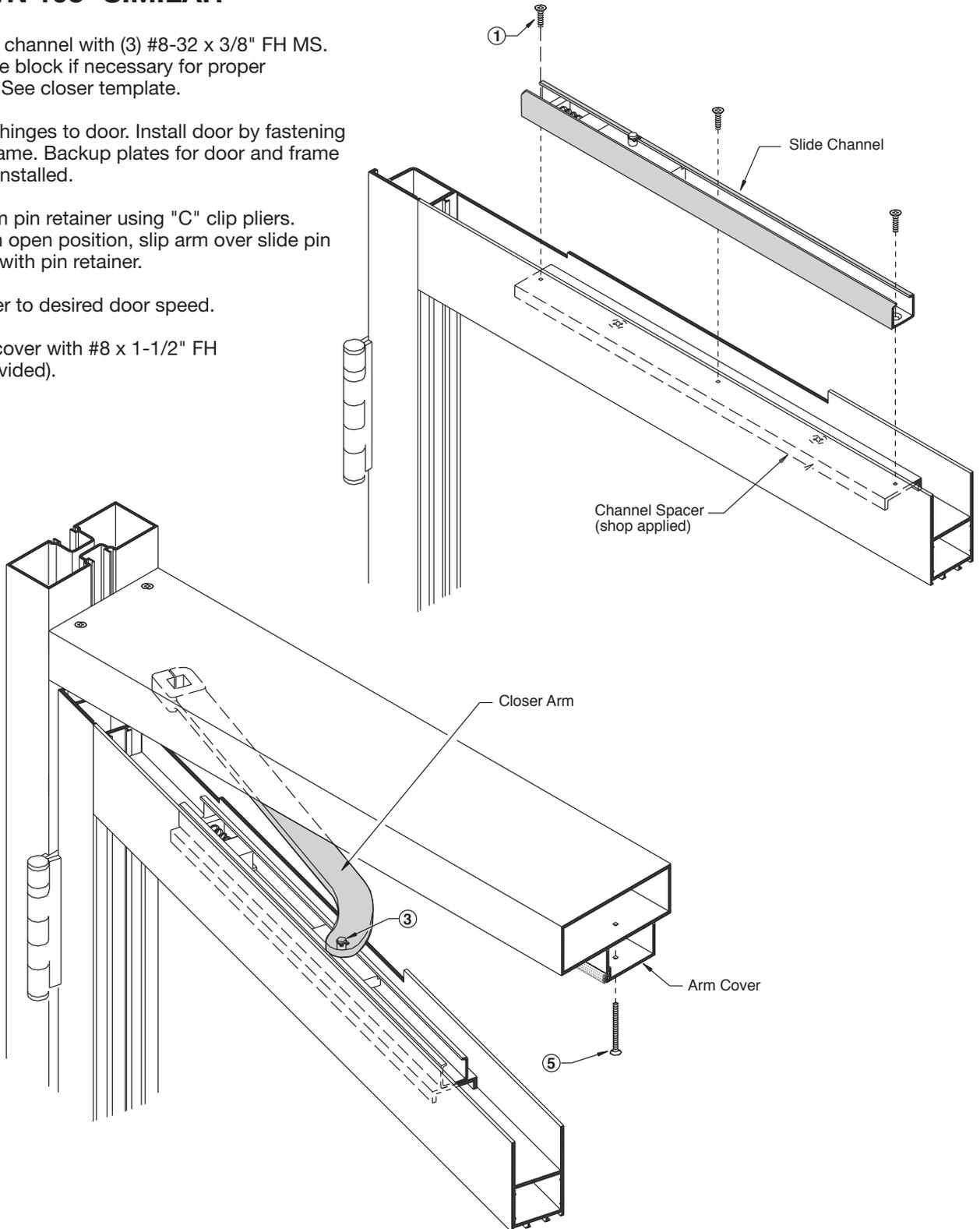
1. Install top arm and door portion of bottom pivot as shown in **DETAIL A**.
2. Position door upright in closed position on the outside of frame.
3. Lift onto floor pivot and tilt to vertical.
4. Adjust top arm as required to receive closer spindle.
5. Install top clamping block using tool provided in closer package **see DETAIL B**.
6. Drill two holes in top of door to attach cover plate **see DETAIL C**.  
If vertical adjustment is required, loosen or tighten adjusting screw at bottom pivot (door portion).
7. Adjust top arm centering screws to center door in frame.

NOT TO SCALE

# BUTT HINGE DOOR WITH JACKSON OVERHEAD CONCEALED CLOSER

## 90° SHOWN 105° SIMILAR

1. Mount slide channel with (3) #8-32 x 3/8" FH MS. Reverse side block if necessary for proper installation. See closer template.
2. Attach butt hinges to door. Install door by fastening hinges to frame. Backup plates for door and frame are factory installed.
3. Remove arm pin retainer using "C" clip pliers. With door in open position, slip arm over slide pin and secure with pin retainer.
4. Adjust closer to desired door speed.
5. Install arm cover with #8 x 1-1/2" FH screws (provided).

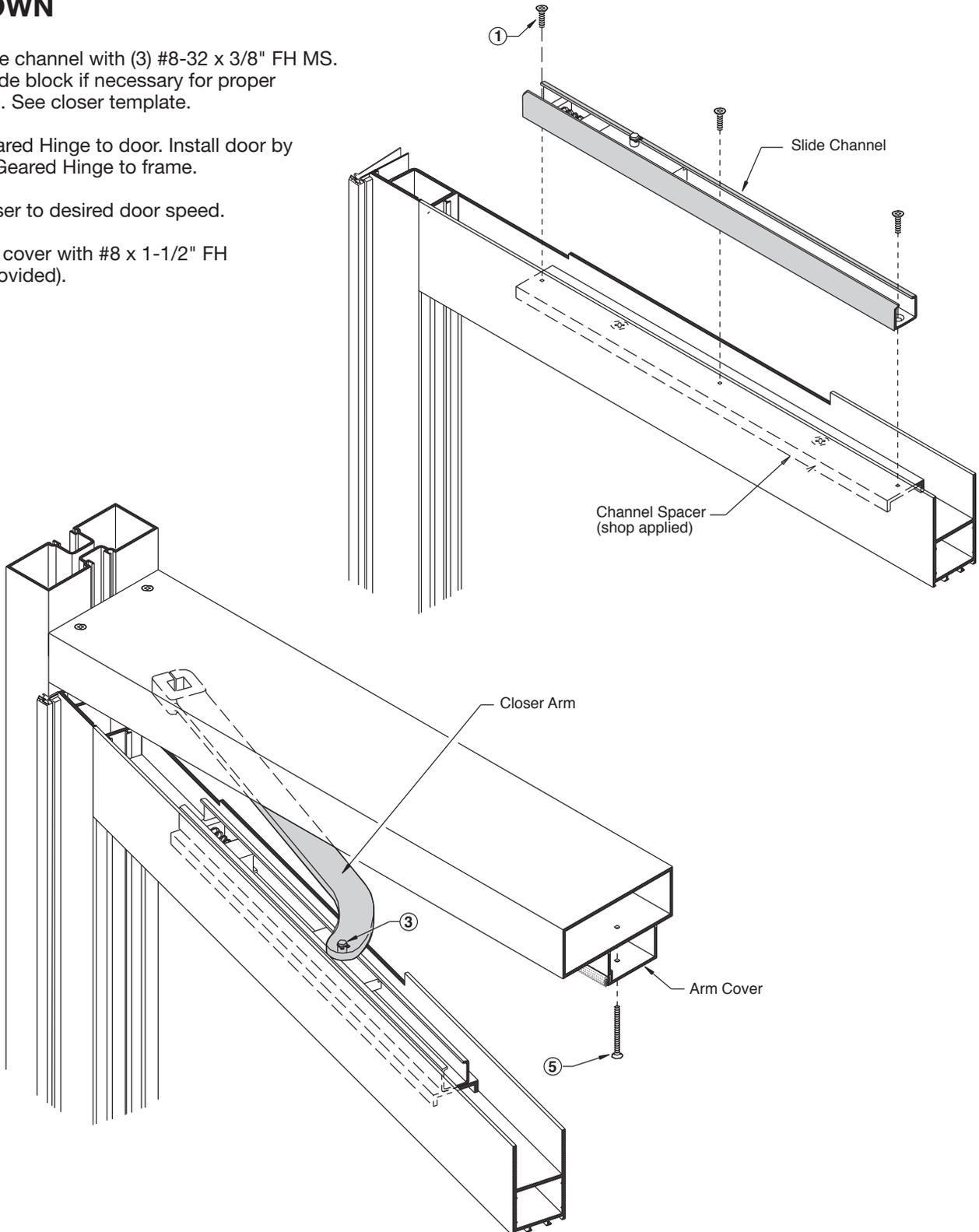


NOT TO SCALE

# GEARED HINGED DOOR WITH JACKSON OVERHEAD CONCEALED CLOSER

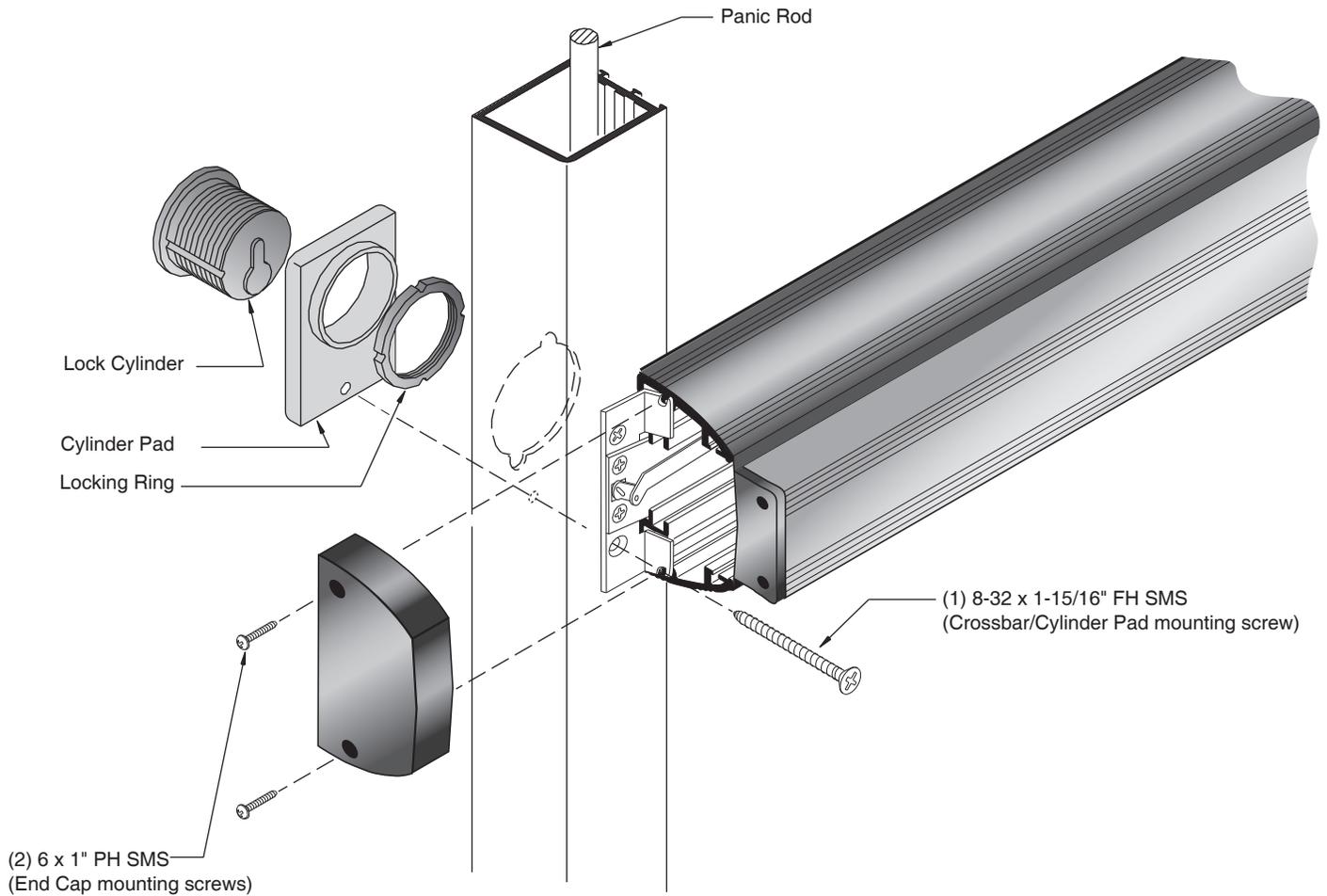
## 105° SHOWN

1. Mount slide channel with (3) #8-32 x 3/8" FH MS. Reverse side block if necessary for proper installation. See closer template.
2. Attach Geared Hinge to door. Install door by fastening Geared Hinge to frame.
3. Adjust closer to desired door speed.
4. Install arm cover with #8 x 1-1/2" FH screws (provided).



NOT TO SCALE

## PANIC DOORS CYLINDER REPLACEMENT BY OTHERS



### Cylinder removal

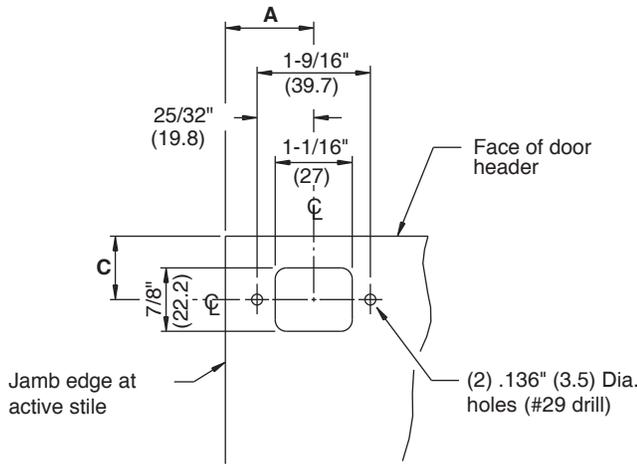
1. Remove (2) screws from end of panic device and remove end cap.
2. Remove bottom crossbar/cylinder pad attachment screw as shown.
3. Turn cylinder and pad clockwise approximately 1/4 turn until cylinder releases.
4. Remove locking ring from cylinder and remove cylinder.

### Cylinder installation

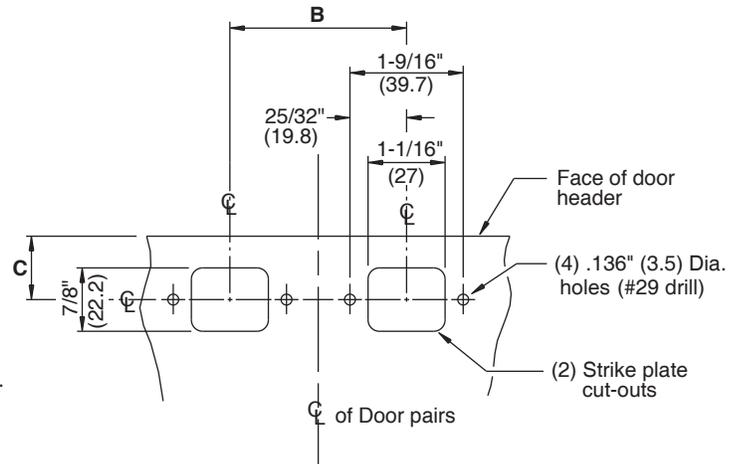
1. Place cylinder through cylinder pad and install locking ring.
2. Place cylinder into hole in stile and turn counterclockwise approximately 1/4 turn.
3. Check cylinder and panic device for proper operation.
4. Replace end cap onto panic device with (2) screws as shown.

NOT TO SCALE

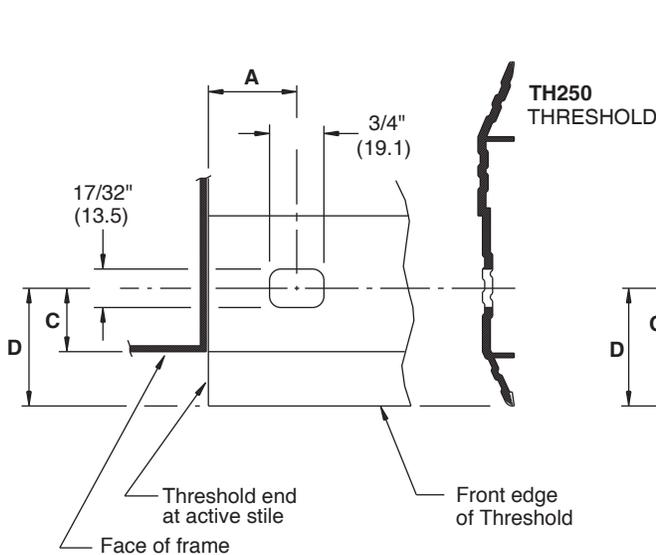
# DH308 MID-PANEL PANIC STRIKE LOCATION FOR DOOR HEADER AND THRESHOLD



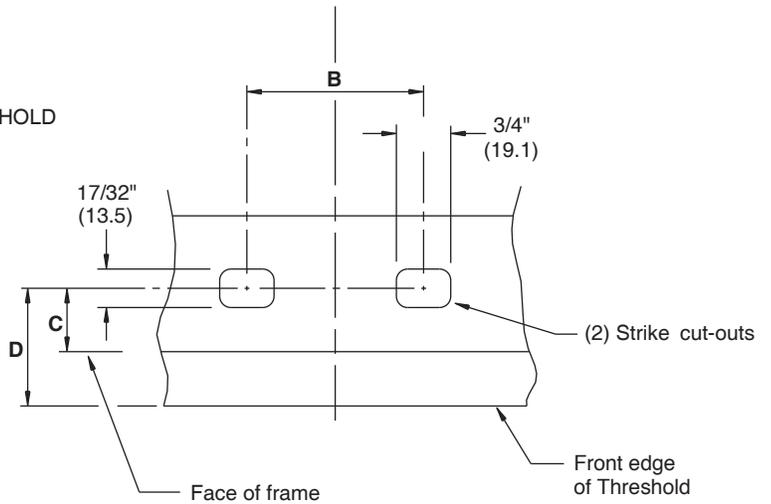
HEADER AT SINGLE DOOR



HEADER AT DOOR PAIRS



THRESHOLD AT SINGLE DOOR



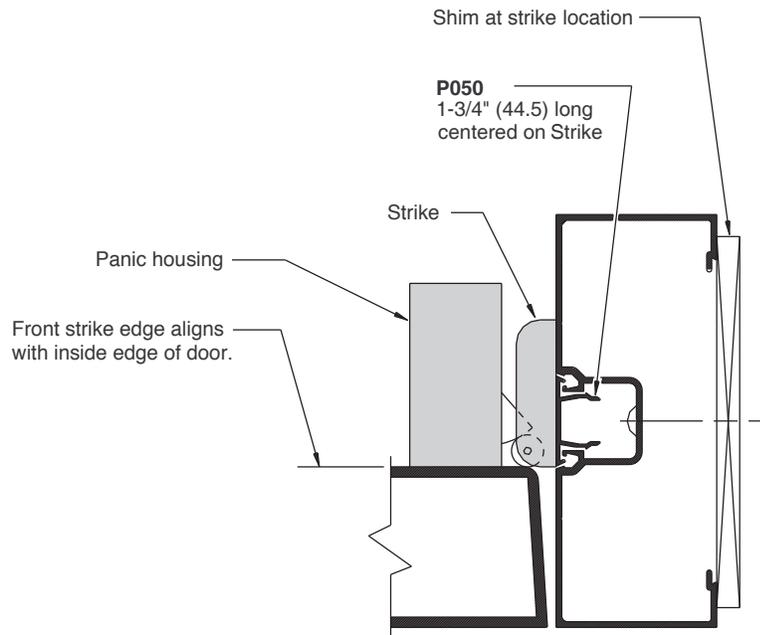
THRESHOLD AT DOOR PAIRS

1. Select detail for required condition.
2. Find door type on chart for needed dimensions.

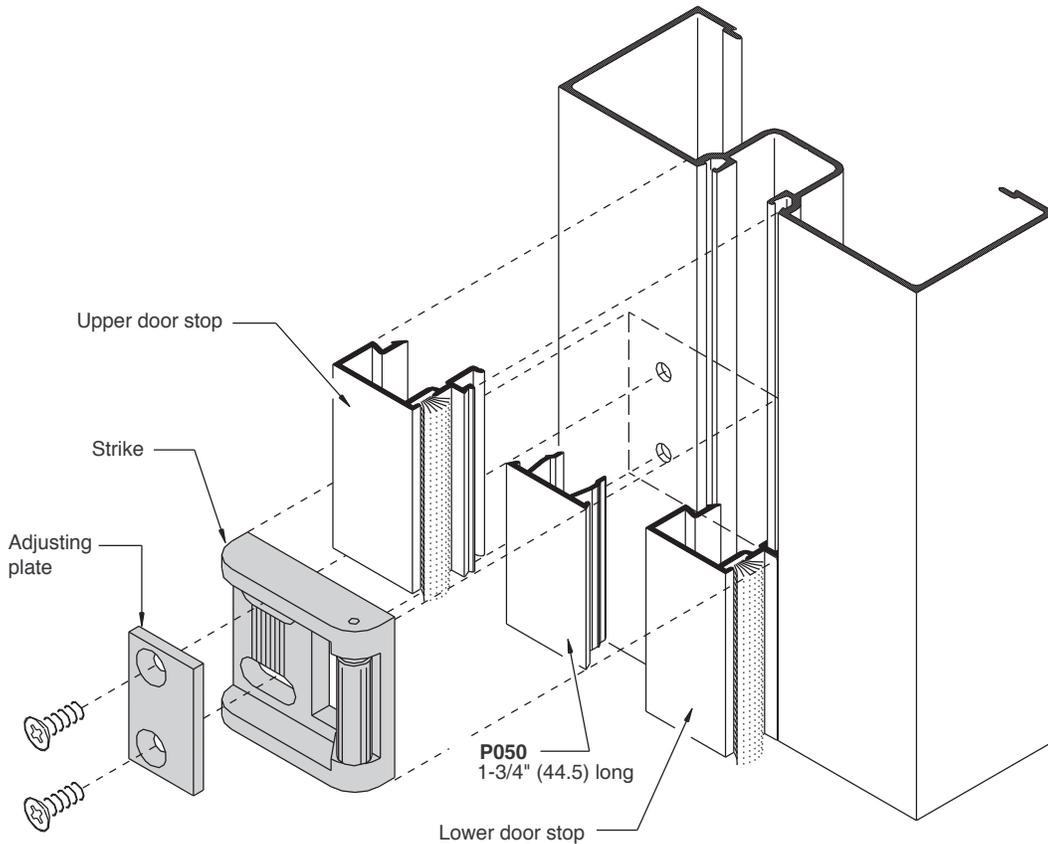
DOOR STILE TYPE	DIMENSION A		DIMENSION B		DIMENSION C		DIMENSION D	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM
NARROW	1-7/32"	(31)	2-3/8"	(60.3)	7/8"	(22.2)	1-5/8"	(41.3)
MEDIUM	2-11/16"	(68.3)	5-3/8"	(135.5)	7/8"	(22.2)	1-5/8"	(41.3)
WIDE	4-3/16"	(106.4)	8-3/8"	(212.7)	7/8"	(22.2)	1-5/8"	(41.3)
VANGARD MEDIUM	N/A	N/A	5-1/4"	(133.4)	7/8"	(22.2)	1-5/8"	(41.3)
VANGARD WIDE	N/A	N/A	8-3/4"	(222.3)	7/8"	(22.2)	1-5/8"	(41.3)

NOT TO SCALE

# "PANIC DOORS" with DH300 RIM PANIC



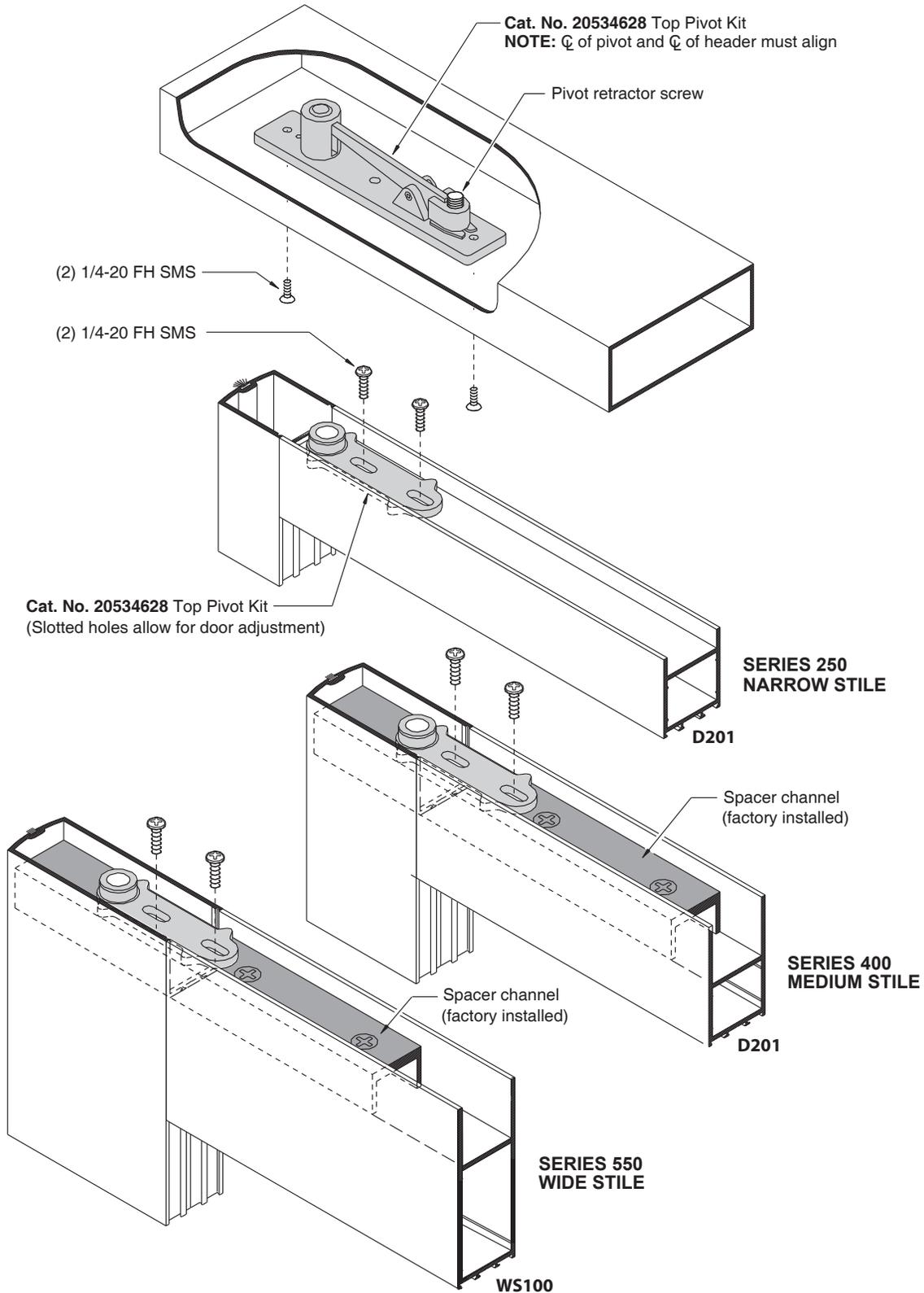
TOP VIEW



ISOMETRIC VIEW OF ASSEMBLY

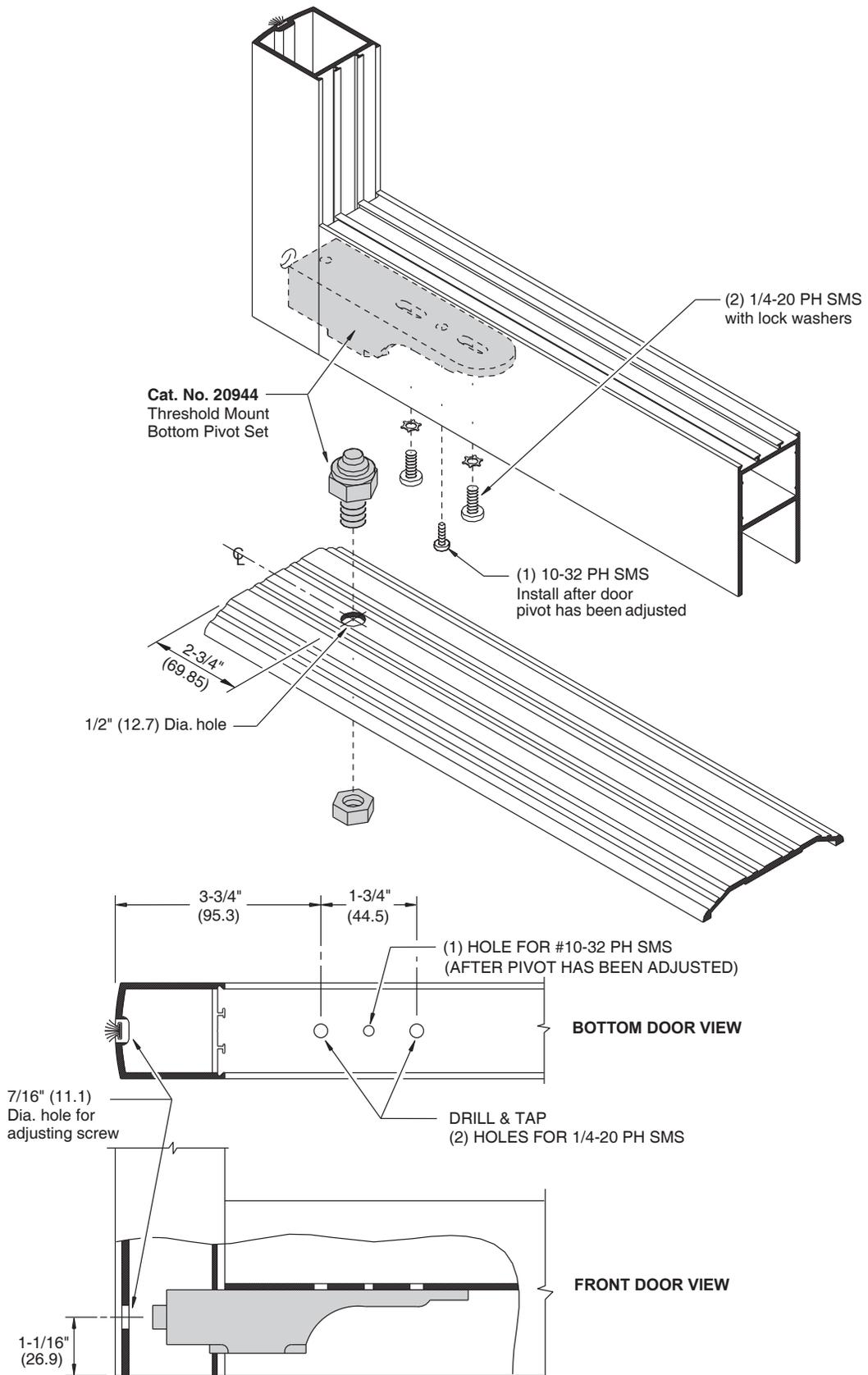
NOT TO SCALE

# CENTER PIVOT - TOP PORTION FOR SURFACE CLOSER OR FLOOR CLOSER



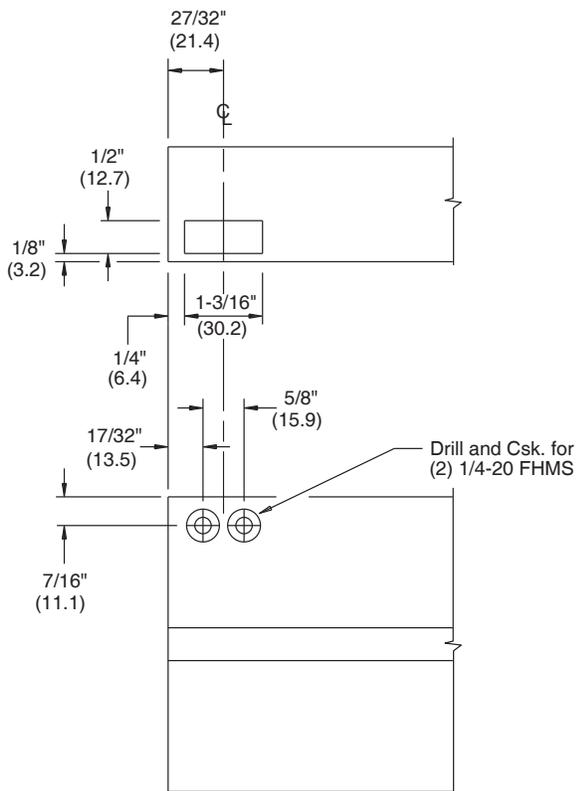
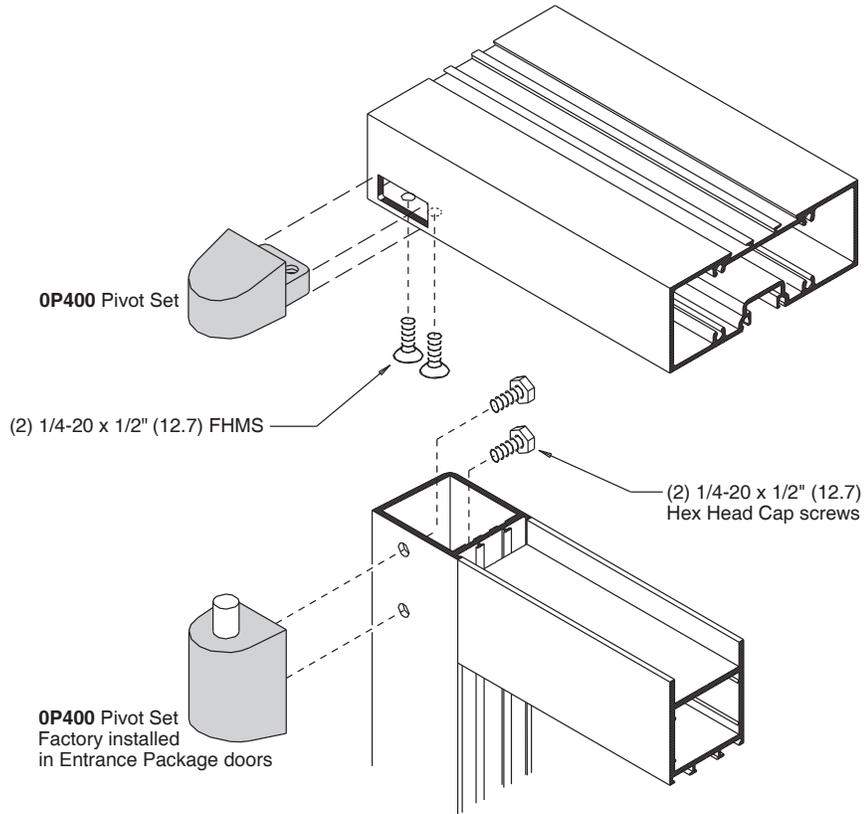
NOT TO SCALE

# CENTER PIVOT - BOTTOM PORTION

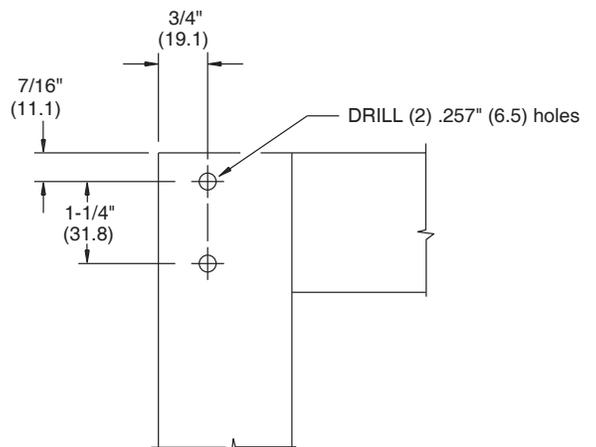


NOT TO SCALE

# OFFSET PIVOT - TOP PORTION

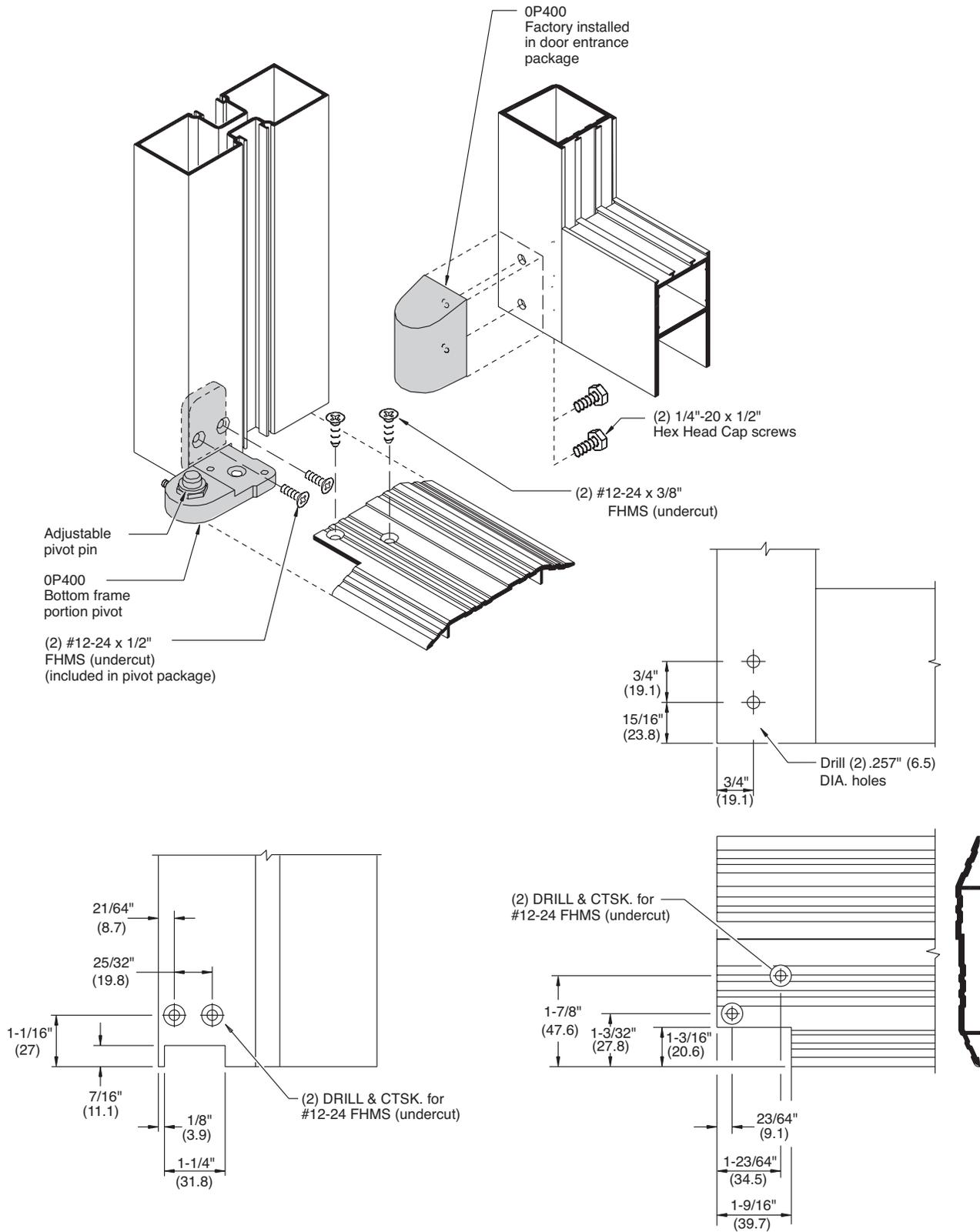


CROSS SECTION



NOT TO SCALE

# OFFSET PIVOT - BOTTOM PORTION



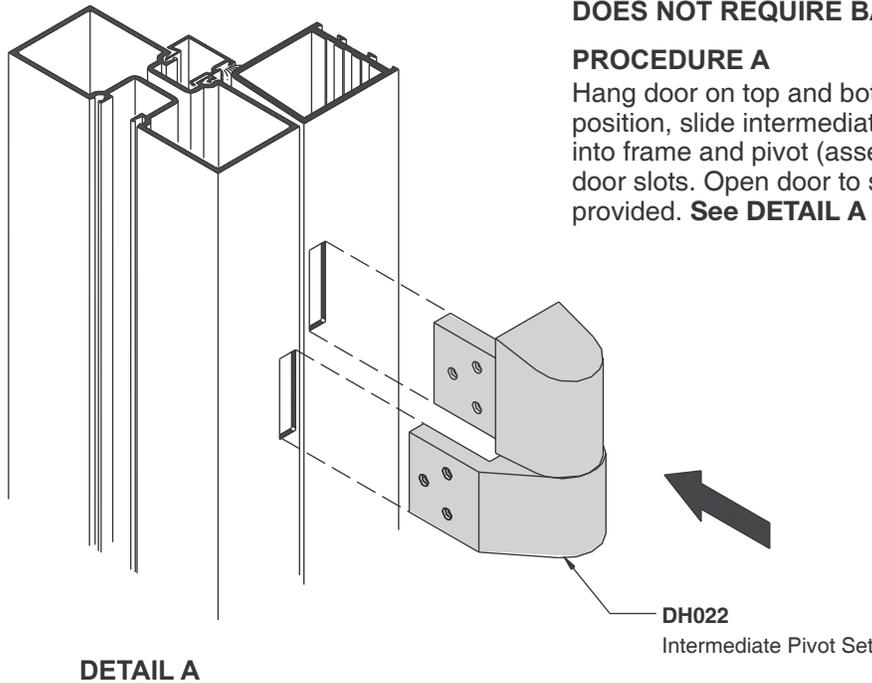
NOT TO SCALE

# DH022 INTERMEDIATE PIVOT

**DOES NOT REQUIRE BACK-UP PLATE**

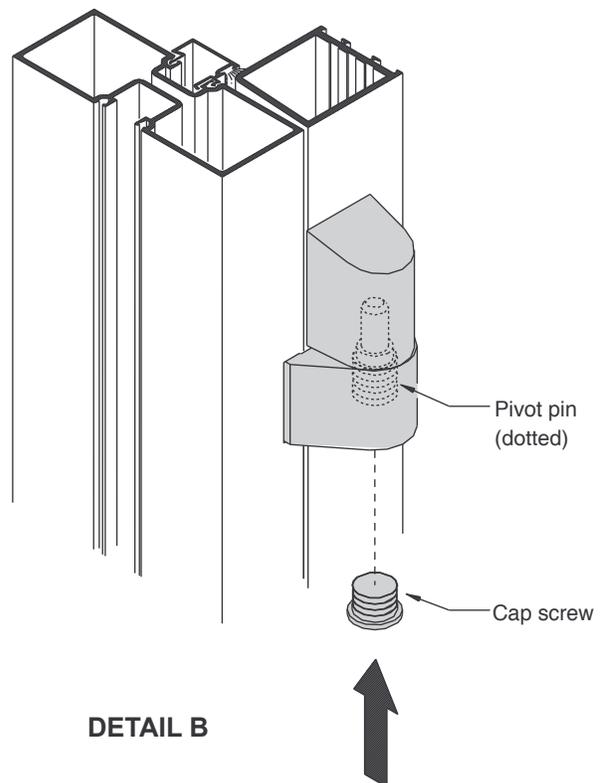
## PROCEDURE A

Hang door on top and bottom pivots. With door in closed position, slide intermediate pivot (assembled together) into frame and pivot (assembled together) into frame and door slots. Open door to secure pivot with fasteners provided. See **DETAIL A**



## PROCEDURE B

Install pivot leaves on frame and door. Remove cap screw from jamb portion of pivot and lower pin to clear. Hang door on top and bottom pivots. Raise pivot pin, as required and replace cap screw. See **DETAIL B**

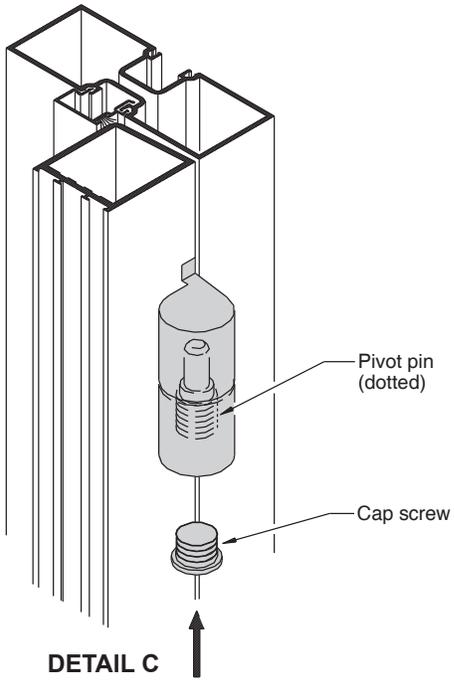
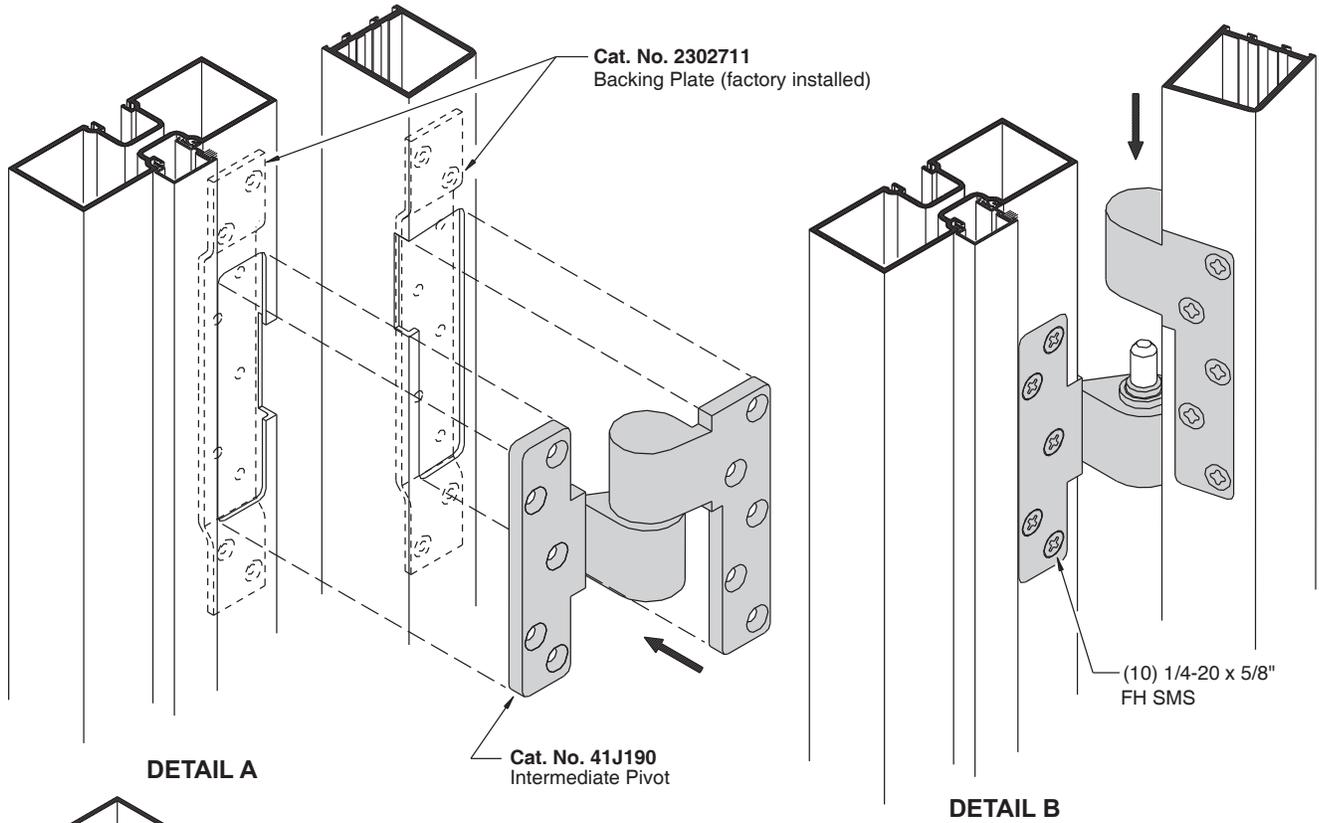


To remove existing doors with intermediate pivots, Remove cap screw and lower pivot pin to clear.

NOT TO SCALE

# DH010 INTERMEDIATE PIVOT (RIXON OR DOR-O-MATIC M-19 SIMILAR)

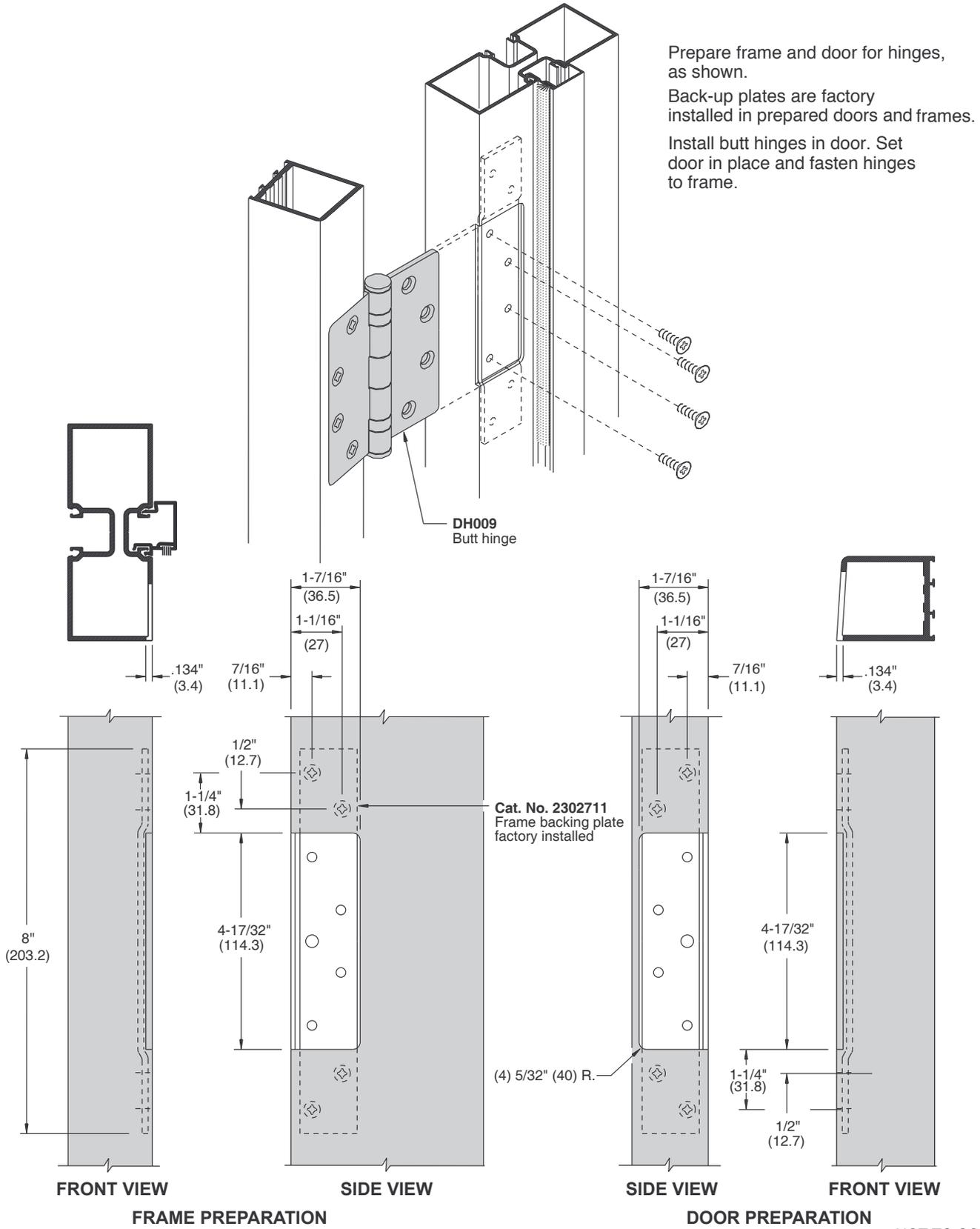
- Condition 1: Door can open to 180° ..... USE PROCEDURE A, B, or C  
 Condition 2: Door can open more than 95° but less than 180° ..... USE PROCEDURE A, B, or C  
 Condition 3: Door can open less than 95° ..... USE PROCEDURE A, B, or C



- PROCEDURE A**  
 Hang door on top and bottom pivots.  
 Swing door open to 180° and install **DH010** (assembled together) with (10) 1/4-20 FH SMS provided. **See DETAIL A**
- PROCEDURE B**  
 Do not install top pivot frame portion.  
 Install pivot leaves on frame and door with screws provided. Place door upright in the 95°, or more, open position (to clear header). Lift door onto intermediate pivot pin and floor pivot. Hold down top pivot pin to install top pivot frame portion. **See DETAIL B**
- PROCEDURE C**  
 Install pivot leaves on frame and door with screws provided. Remove cap screw from jamb portion of pivot and lower pin to clear. Hang door on top and bottom pivots. Raise pivot pin, as required, and replace cap screw. **See DETAIL C**

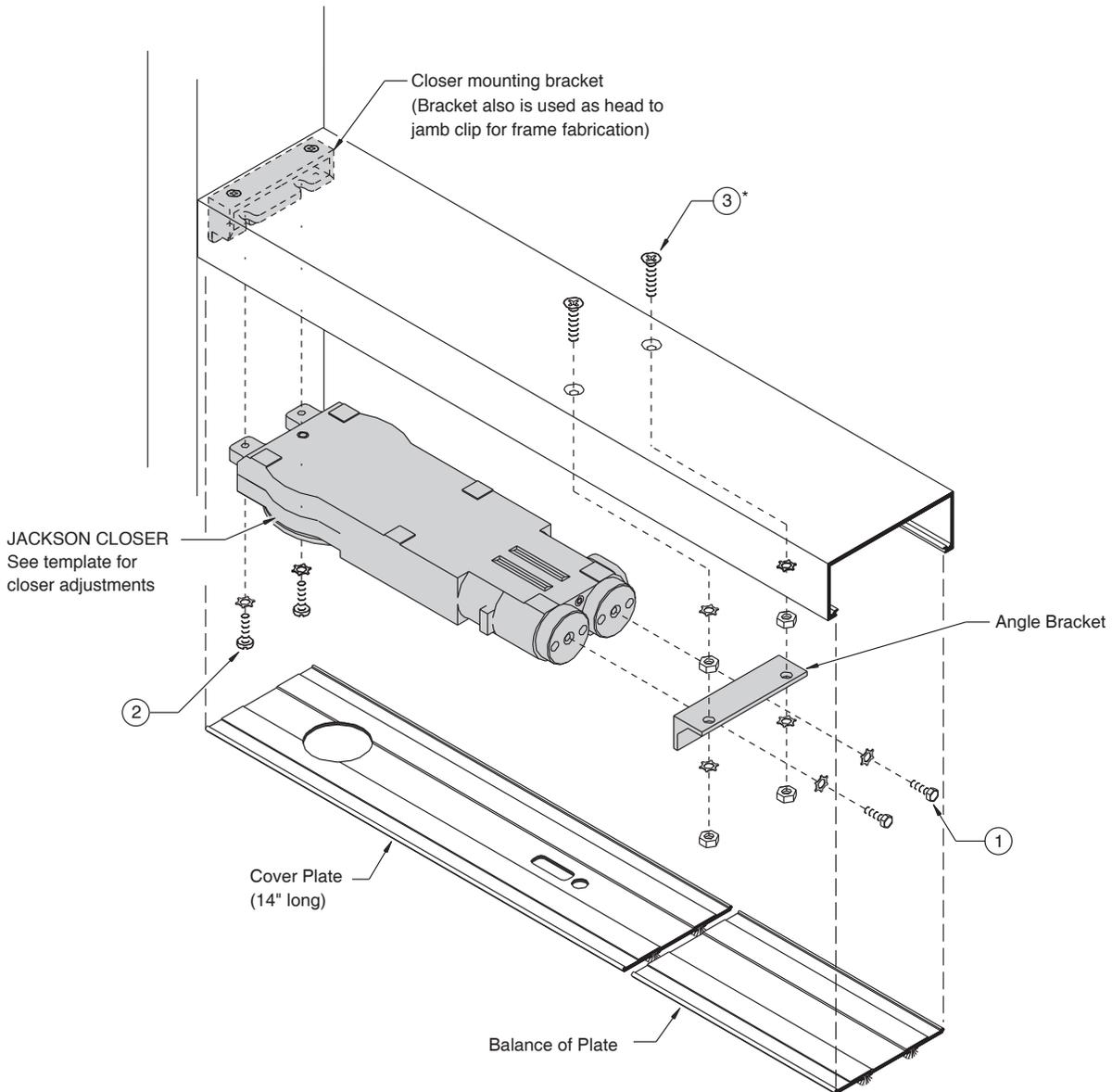
To remove existing doors with intermediate pivots, remove cap screw and lower pivot pin to clear. NOT TO SCALE

# DH009 BUTT HINGE 4-1/2" x 4"



NOT TO SCALE

# JACKSON OVERHEAD CONCEALED CLOSER FOR CENTER PIVOTED DOOR



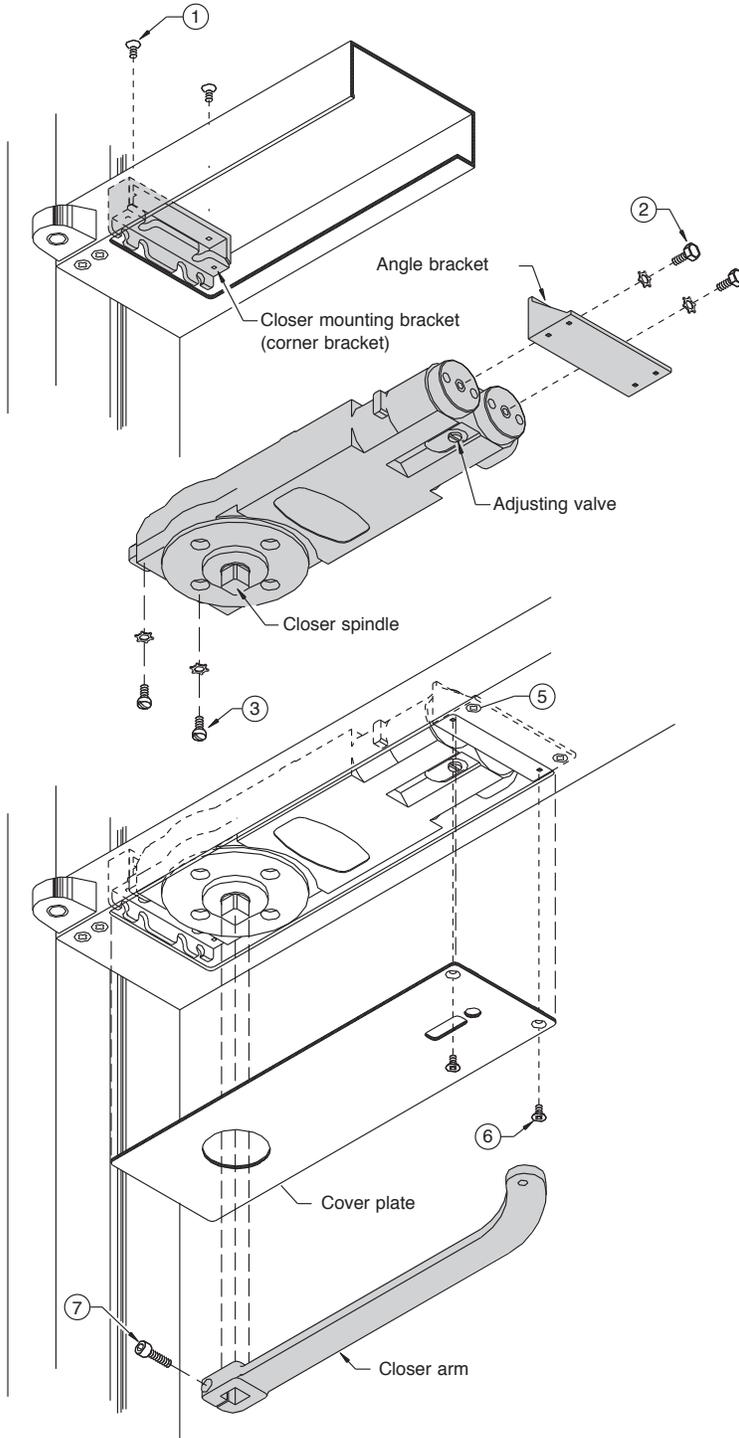
**Closer mounting bracket is already installed (See FRAME UNITS installation instructions).**

1. Mount angle bracket to closer with (2) 1/4-20 hex head SMS and (2) washers.
2. Install (2) 1/4-20 x 5/8" Fillister Head MS into lugs of closer. Do not tighten screws.
3. Install (2) 1/4-20 x 7/8" FH SMS\* with (2) 1/4-20 nuts and washers in header.
4. Insert closer lugs into mounting bracket at an angle and raise closer opposite end to align mounting screws with angle bracket holes. Secure bracket to mounting screws using (2) nuts and washers.
5. Tighten Fillister Head screws.
6. Snap in filler plate.

\*For 2" x 4-1/2" header, longer screws are provided.

NOT TO SCALE

# JACKSON OVERHEAD CONCEALED CLOSER FOR OFFSET PIVOTED DOOR



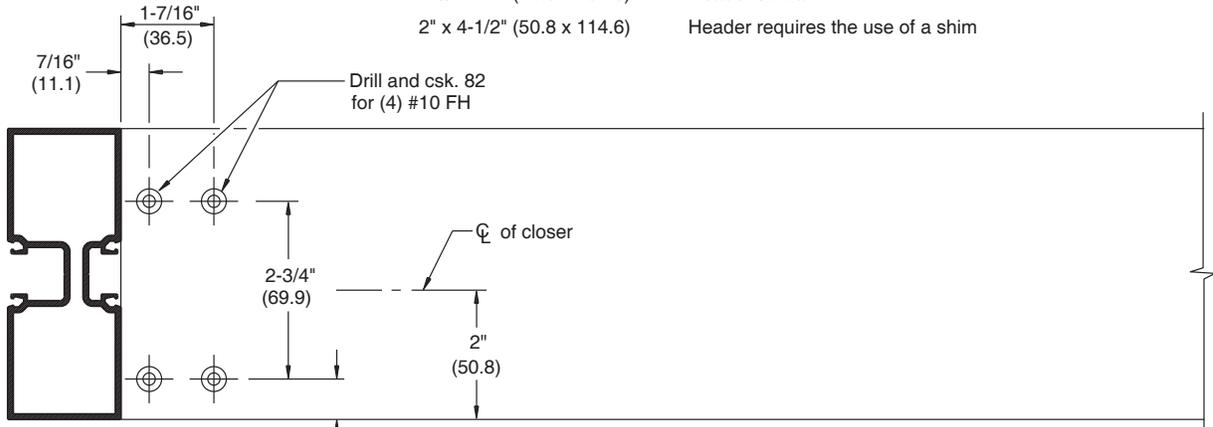
1. Mount corner bracket into header with (2) 10-32 x 3/8" FH SMS. See pages 27 and 29 for bracket location.
2. Mount angle bracket to closer with (2) 1/4-20 x 1/2" Hex Head SMS and washers.
3. Install (2) 1/4-20 x 1/2" Fillister Head SMS with washers into lugs of closer. Do not tighten screws.
4. Set closer onto header and align angle bracket holes with holes in header. Closer lugs shall rest on corner bracket.
5. Fasten angle bracket to header with (2) 10-24 x 3/8" FH SMS Tighten Fillister Head screws.
6. Install cover plate and secure to angle with (2) 10-24 x 3/8" FH SMS
7. Mount arm on spindle and secure with 1/4-20 x 7/8" Socket Head Cap Screw.

NOT TO SCALE

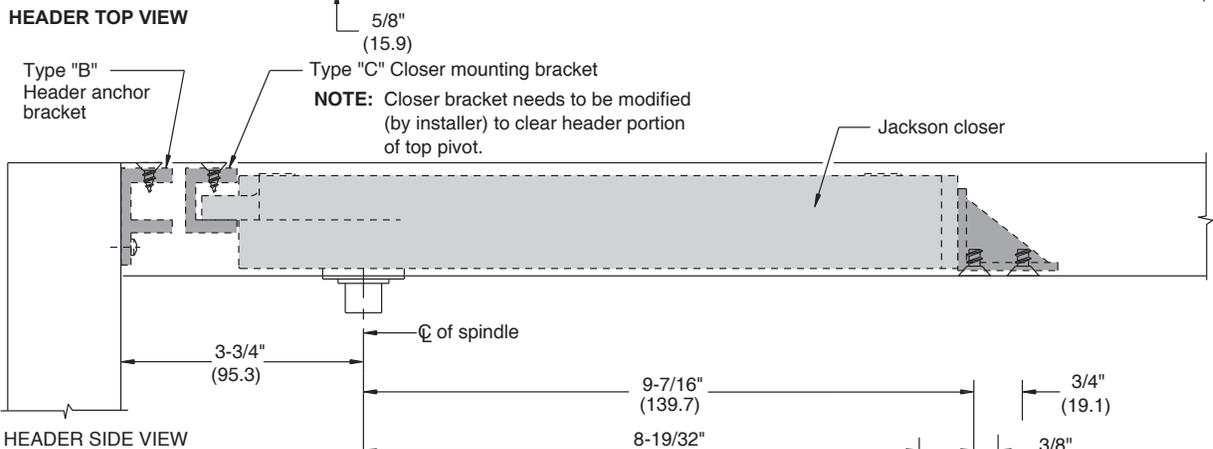
# JACKSON OVERHEAD CONCEALED CLOSER FOR OFFSET PIVOTED DOOR WITH 90° SWING

## HEADER PREPARATION

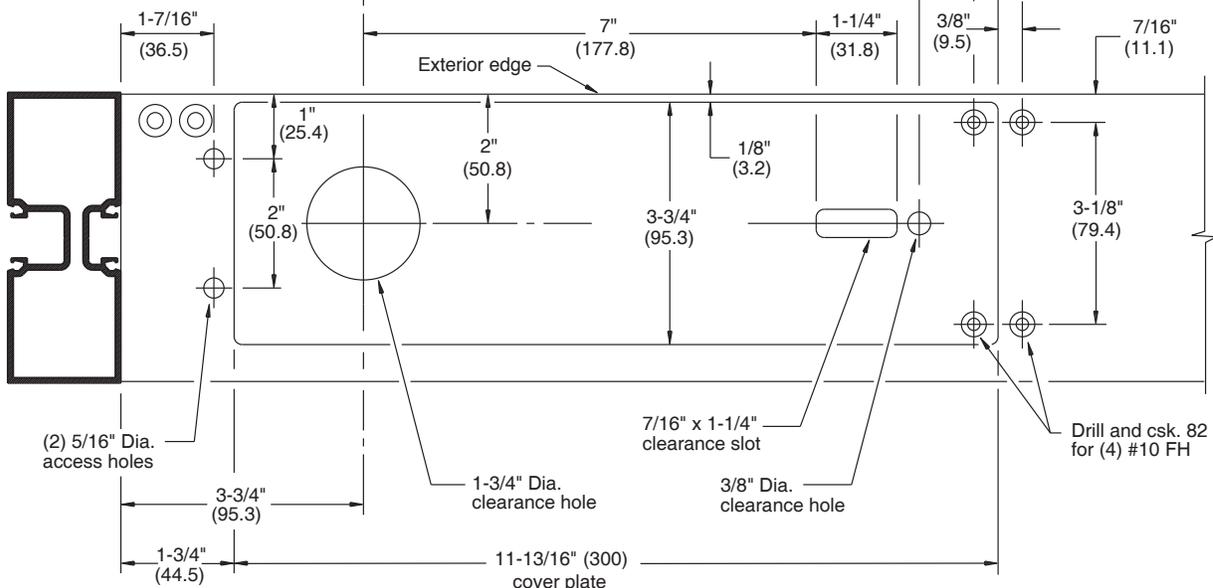
- 1-3/4" x 4-1/2" (44.5 x 114.3) Header shown
- 1-3/4" x 4" (44.5 x 101.6) Header similar
- 2" x 4-1/2" (50.8 x 114.6) Header requires the use of a shim



HEADER TOP VIEW



HEADER SIDE VIEW



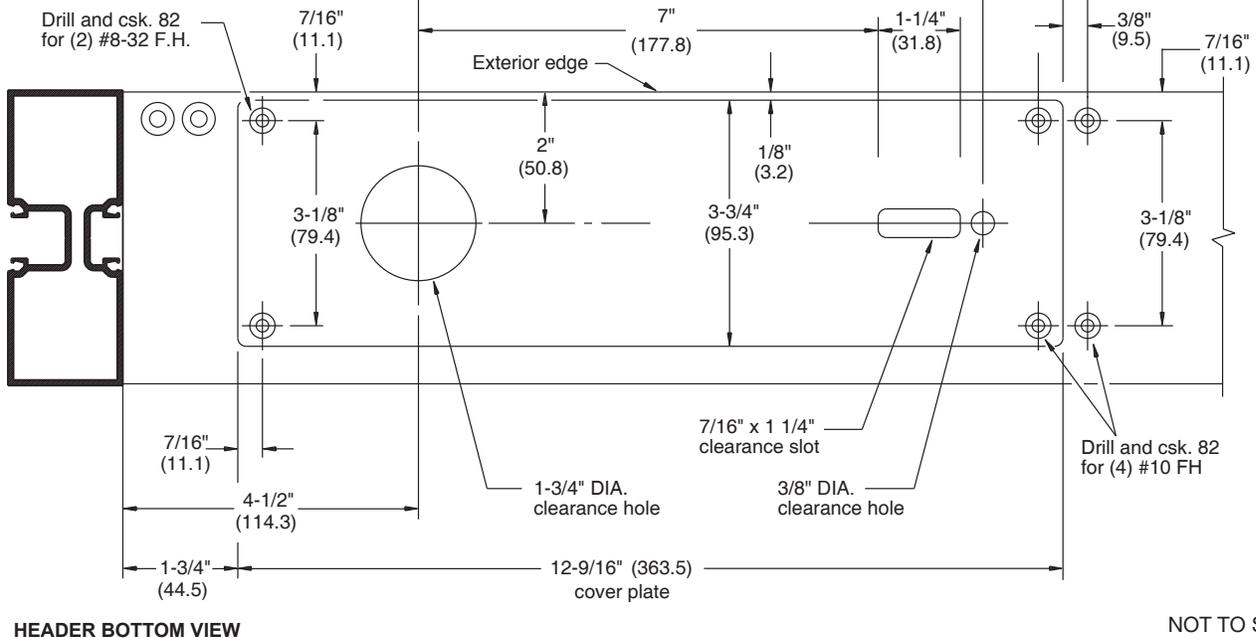
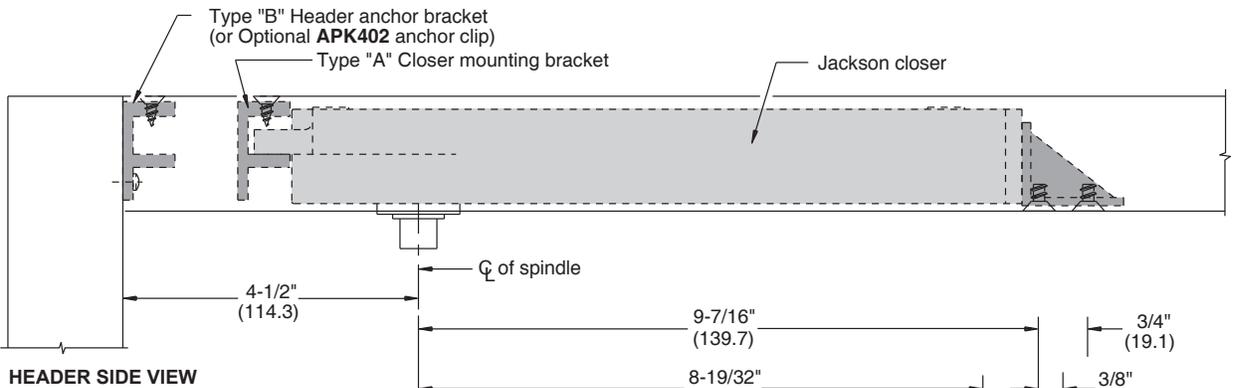
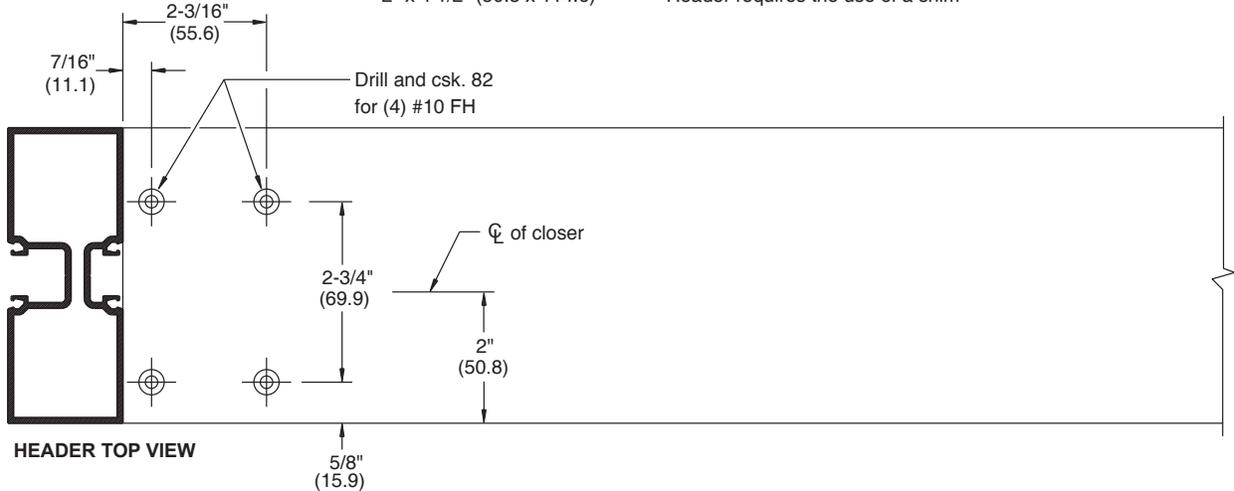
HEADER BOTTOM VIEW

NOT TO SCALE

# JACKSON OVERHEAD CONCEALED CLOSER FOR OFFSET PIVOTED DOOR WITH 105° SWING

## HEADER PREPARATION

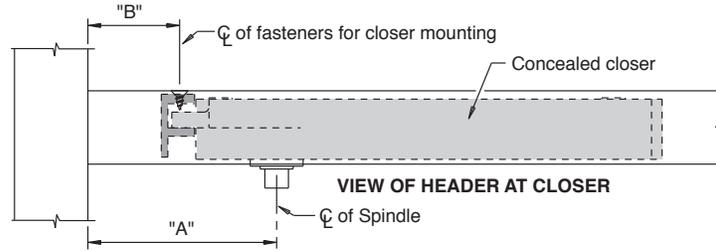
- 1-3/4" X 4-1/2" (44.5 x 114.3) Header shown
- 1-3/4" x 4" (44.5 x 101.6) Header similar
- 2" x 4 1/2" (50.8 x 114.6) Header requires the use of a shim



NOT TO SCALE

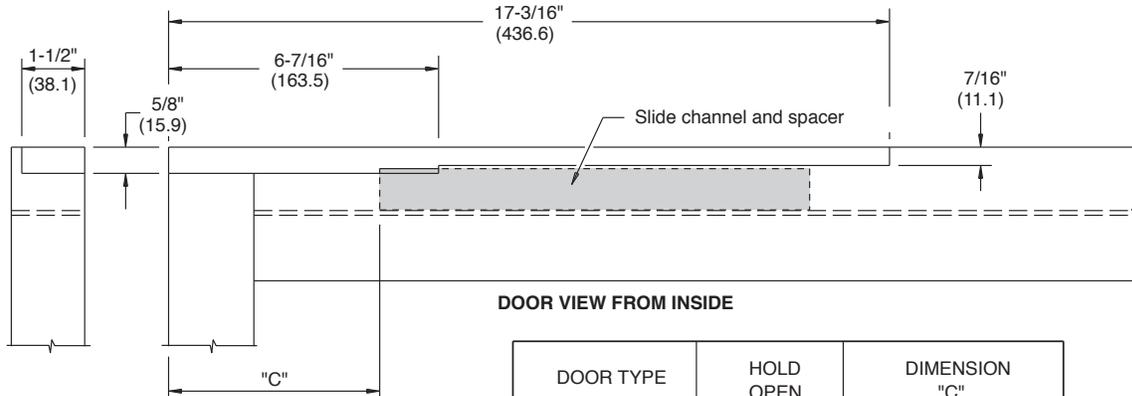
# JACKSON OVERHEAD CONCEALED CLOSER

## CLOSER LOCATION IN HEADER



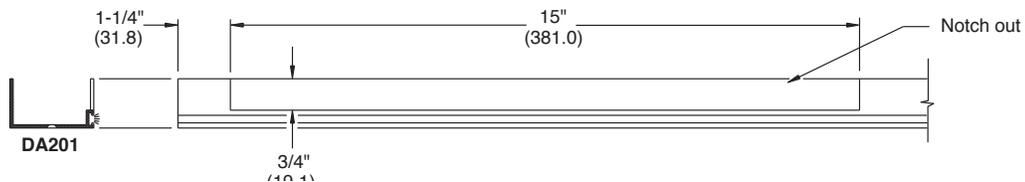
DOOR TYPE	HOLD OPEN	DIMENSION "A"	DIMENSION "B"	REFERENCE PAGE
CENTER PIVOT	90° OR 105°	2-3/4" (69.9)	7/16" (11.1)	20
OFFSET PIVOT (OP400)	105°	4-1/2" (114.3)	2-3/16" (55.6)	29
	90°	3-3/4" (95.3)	1-7/16" (36.5)	28
BUTT HINGES	105°	3-3/4" (95.3)	1-7/16" (36.5)	15
	90°	2-7/8" (73.0)	9/16" (14.3)	15
GEARED HINGE	105°	3-3/4" (95.2)	1-7/16" (36.5)	16

## SLIDE CHANNEL LOCATION IN TOP RAIL FOR OFFSET ARM



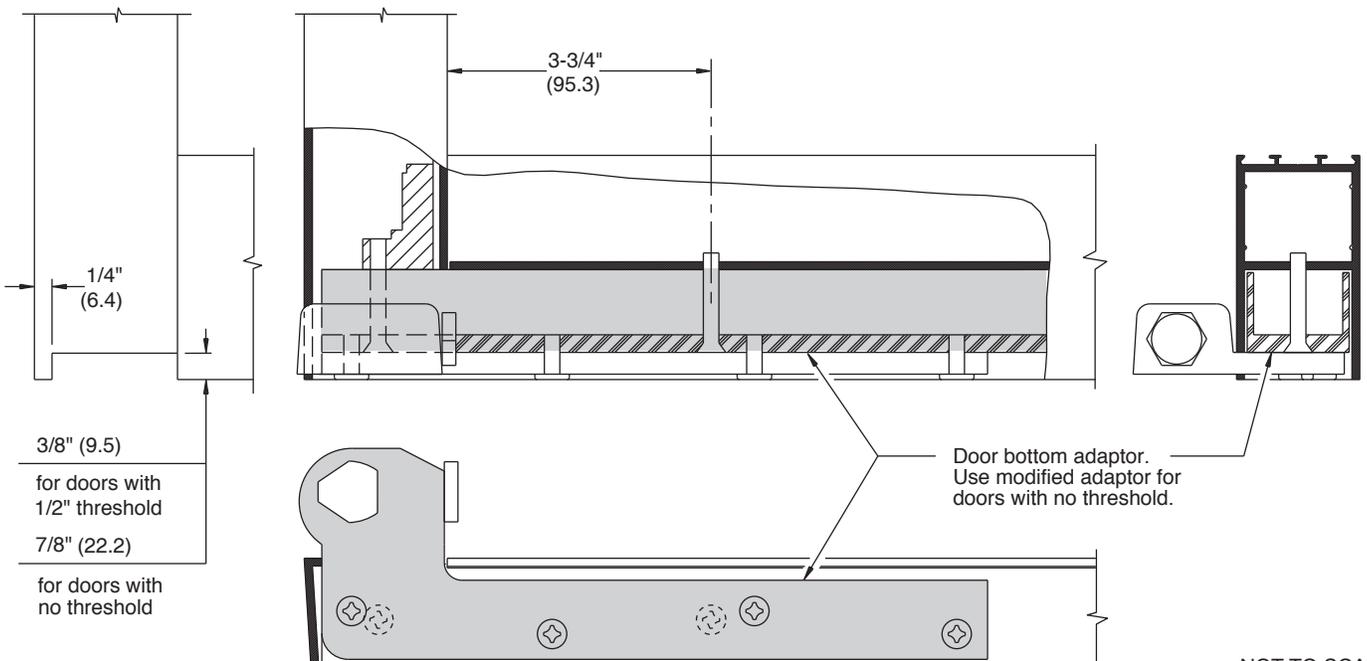
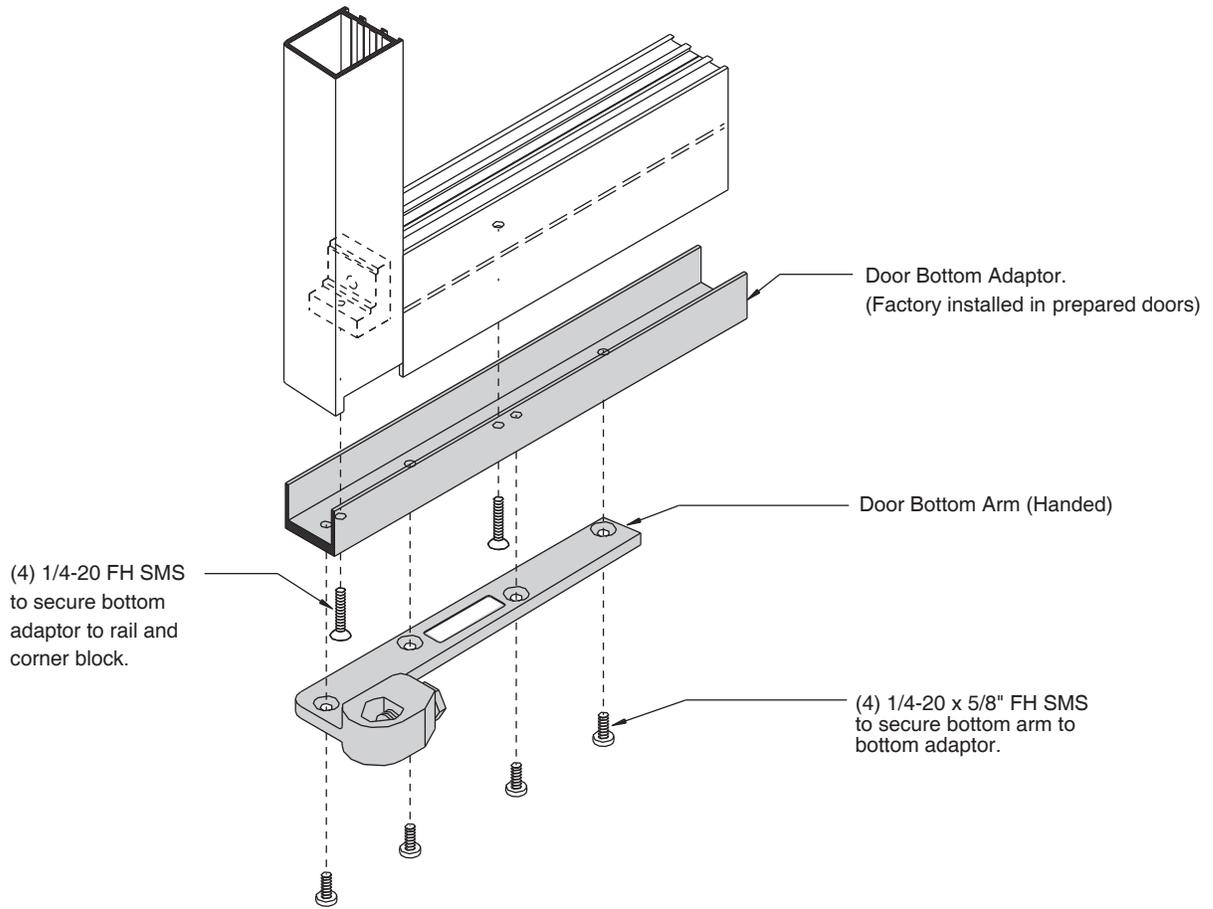
DOOR TYPE	HOLD OPEN	DIMENSION "C"
OFFSET PIVOT (OP400)	90°	4-15/16" (125.4)
	105°	4-11/16" (119.1)
BUTT HINGES	90°	4-1/16" (103.2)
	105°	3-7/8" (98.4)

## OFF-SET ARM COVER CHANNEL RIGHT HAND SHOWN LEFT HAND OPPOSITE



NOT TO SCALE

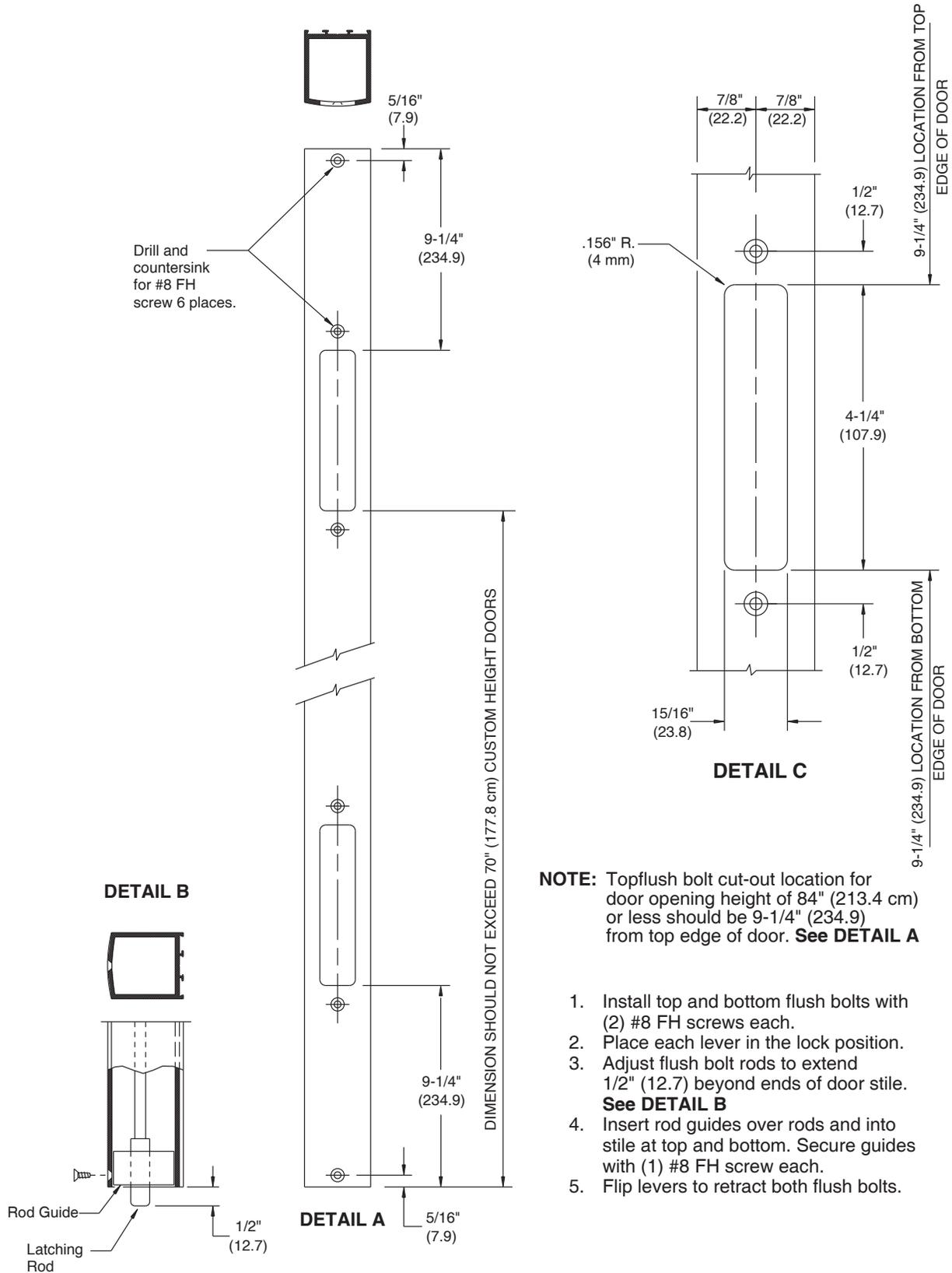
# OFFSET PIVOT DOOR - FLOOR CLOSER BOTTOM ARM FOR RIXON FLOOR CLOSURE (DOR-O-MATIC SIMILAR)



NOT TO SCALE

# DH008 FLUSH BOLT

NARROW STILE SHOWN, MEDIUM AND WIDE STILES SIMILAR



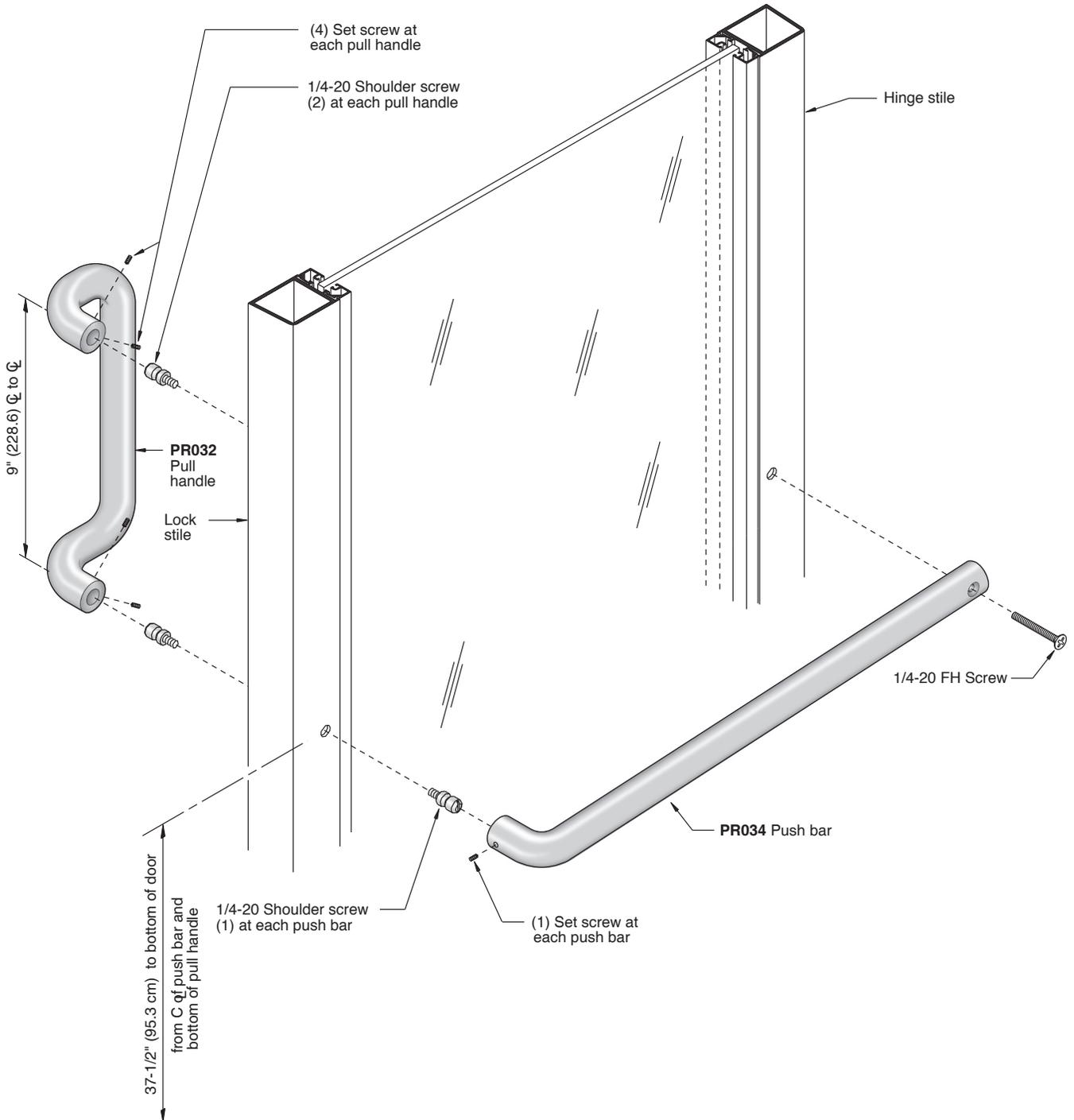
**NOTE:** Topflush bolt cut-out location for door opening height of 84" (213.4 cm) or less should be 9-1/4" (234.9) from top edge of door. **See DETAIL A**

1. Install top and bottom flush bolts with (2) #8 FH screws each.
2. Place each lever in the lock position.
3. Adjust flush bolt rods to extend 1/2" (12.7) beyond ends of door stile. **See DETAIL B**
4. Insert rod guides over rods and into stile at top and bottom. Secure guides with (1) #8 FH screw each.
5. Flip levers to retract both flush bolts.

NOT TO SCALE

# Astral. II

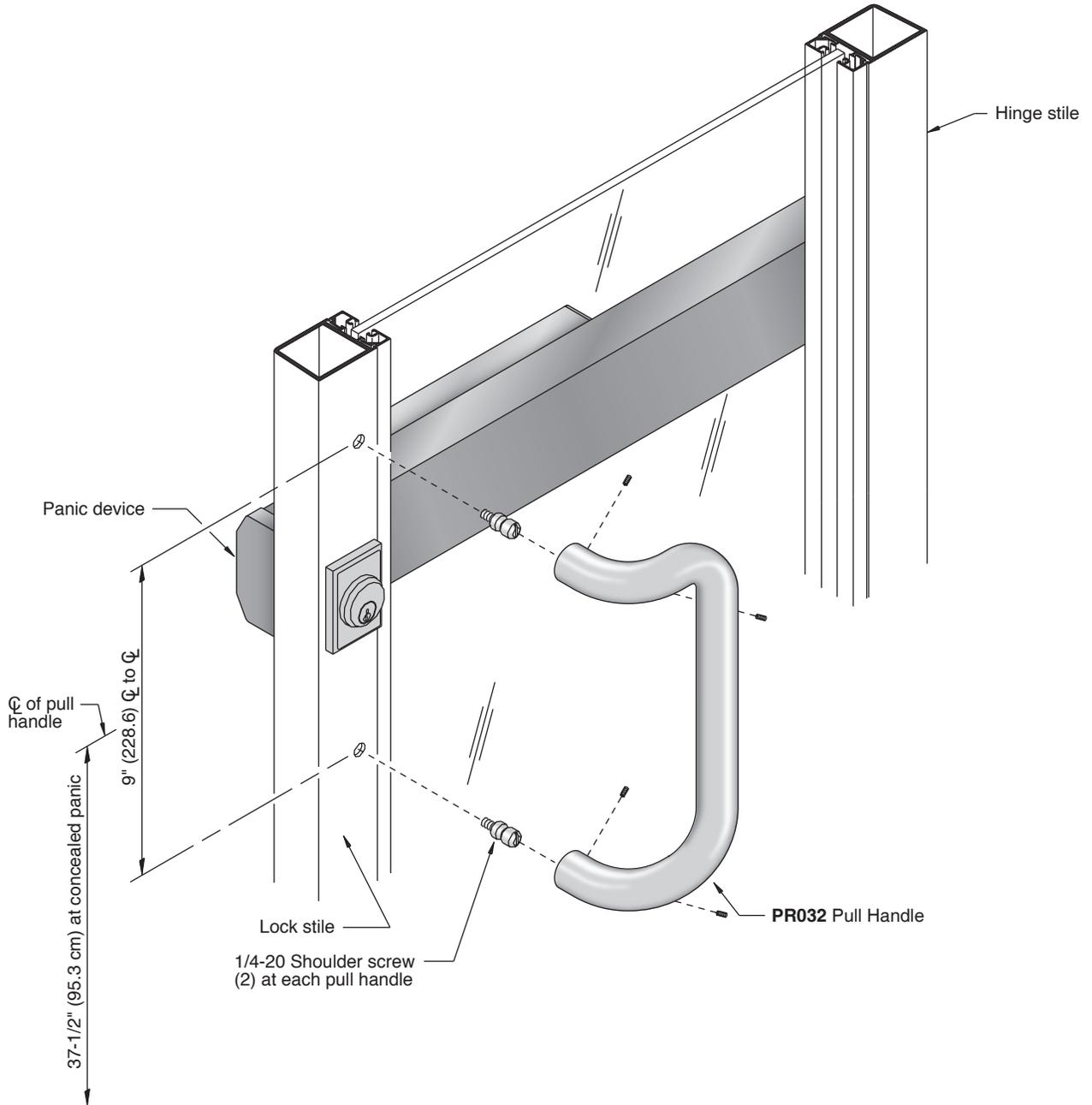
## PUSH BAR HARDWARE - OFFSET HUNG DOOR TYPE "B" STANDARD PUSH/PULL FOR OFFSET DOORS



NOT TO SCALE

# Astral II

## PUSH/PULL HARDWARE - PANIC DOOR



NOT TO SCALE

# DOOR GLAZING INSTRUCTIONS

Door may be glazed either Installed or Laid horizontal.

**NOTE:** Doors are more easily glazed in horizontal position. If glazing horizontally, leveling screw adjustments occur after hanging door.

Raise adjustable leveling screw to maximum retracted position.

See **DETAIL A.**

Install glass stops, with glazing gaskets on one side of door only.

If using square stops, install vertical stops first.

If using beveled stops, install horizontal stops first.

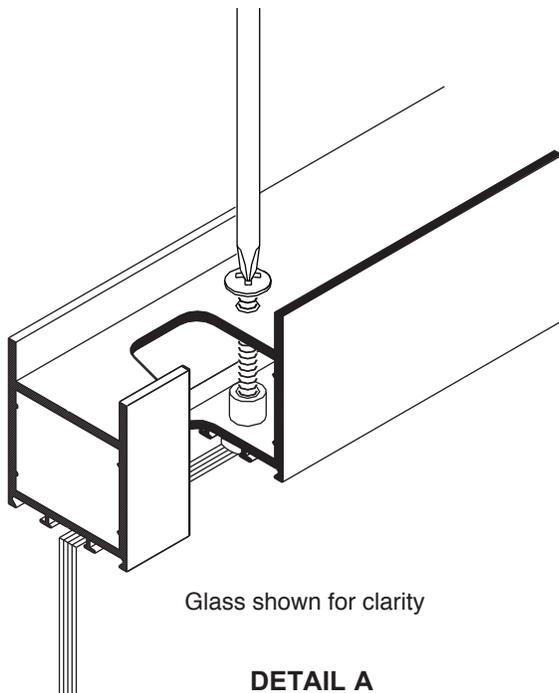
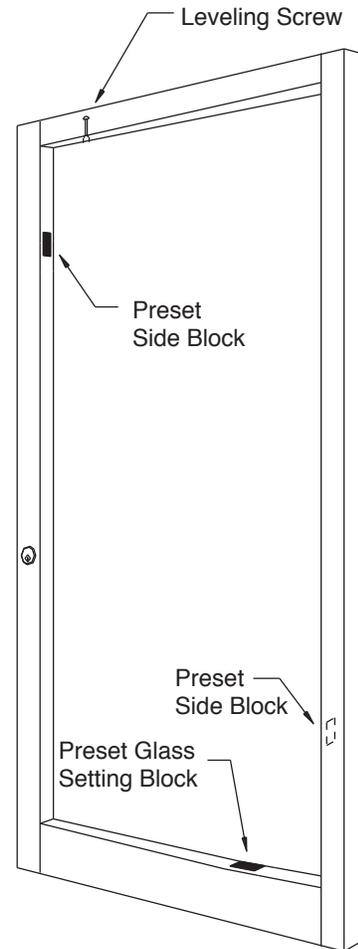
Center glass in opening resting on setting blocks.

Snap-in remaining glass stops.

Turn leveling screw as required to maintain a uniform clearance between door top rail and header.

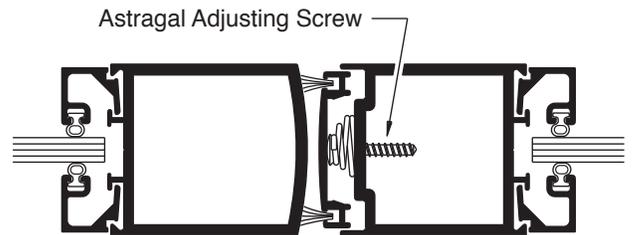
On pair of doors with Astragal adjust screws to keep proper meeting stiles clearance. See **DETAIL B.**

On all weather stripped door stiles pull the string to release weatherstrip pile after doors are installed. See **DETAIL C.**

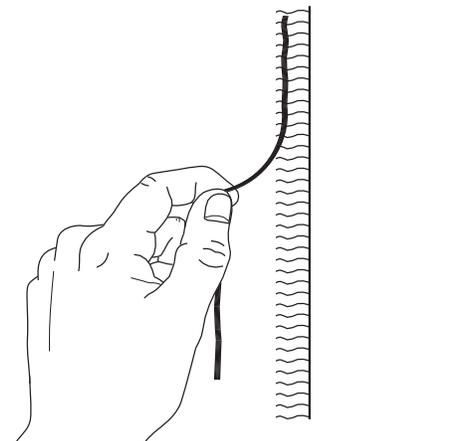


Glass shown for clarity

**DETAIL A**



**DETAIL B**



**DETAIL C**

NOT TO SCALE