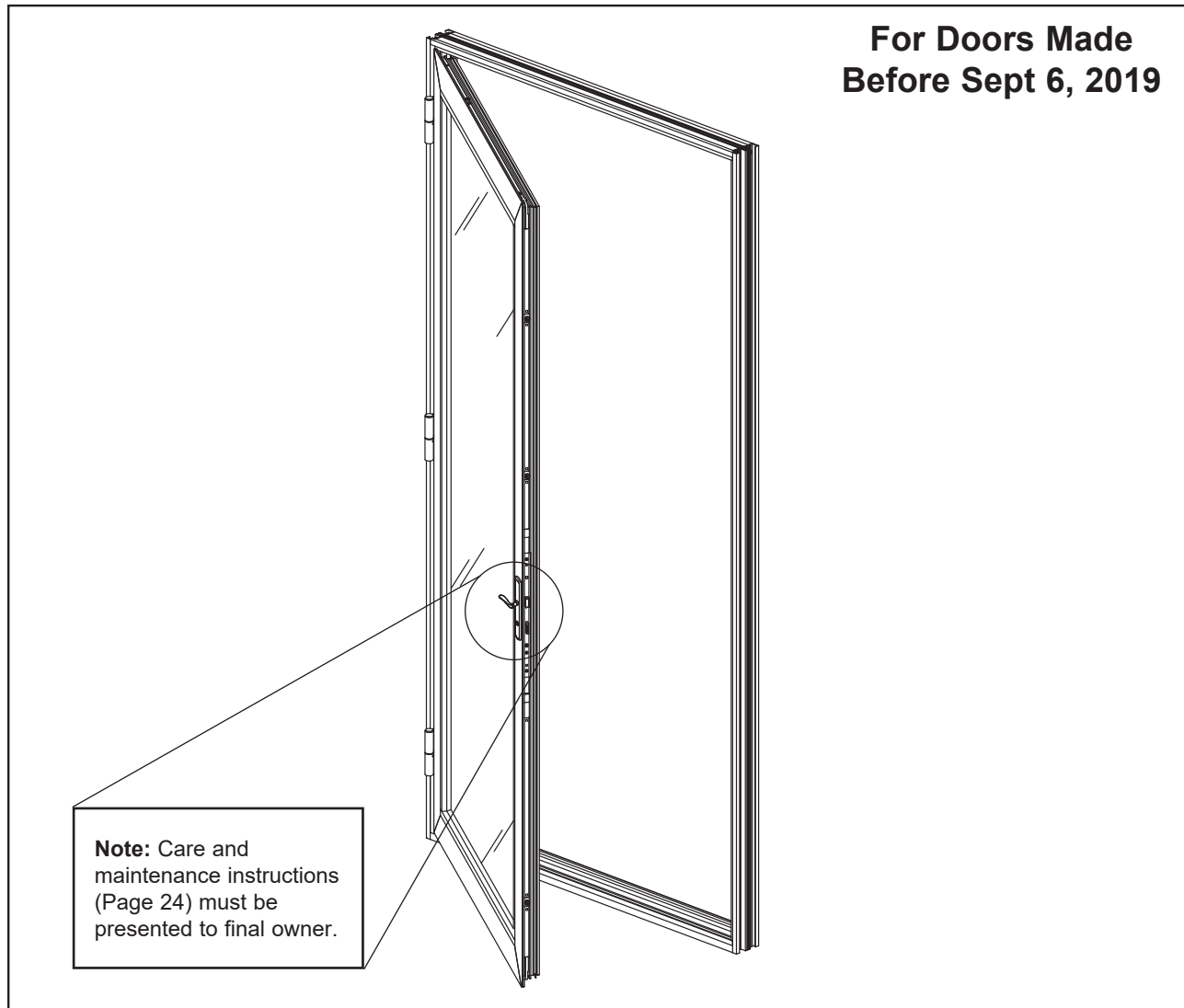


YTD 350 T/TH THERMALLY BROKEN ARCHITECTURAL TERRACE DOOR



SYSTEM DESCRIPTION

- 3-1/2" or 4-1/2" Deep Frame High Performance Architectural Terrace Door
- Outswing and Inswing Configurations
- Non-Impact Variations:
Single Doors up to 4'-0" x 8'-0" (Frame Height)
Pair Doors up to 8'-0" x 8'-0" (Frame Height)
- Impact Variations (Outswing Only):
Singles Doors up to 3'-6" x 10'-0" @ 110 psf
Pairs Doors up to 7'-0" x 8'-0" @ 110 psf
Pairs Doors up to 6'-0" x 9'-0" @ 90 psf
- YKK AP MegaTherm® Thermal Break
- Optional Low Sill & 10" Bottom Rail Available (Non-Impact)

PERFORMANCE FEATURES

- AAMA/WDMA/CSA 1/I.S.2/A440-05
- Outswing:
ATD AW-80 Rating – Single Door
ATD AW-65 Rating – Pair Doors
- Inswing:
ATD AW-60 Rating – Single Door
ATD AW-40 Rating – Pair Doors

Installation Manual

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INSTALLATION NOTES

1. Do not drop, roll or drag boxes of aluminum framing. Move and stack boxes with proper support to prevent distortion. If fork lifts are used, be especially careful about striking the boxes when lifting or moving.
2. Store in a dry, out of the way area. If rain exposure, condensation or any water contact is likely, then all packaging material should be removed. Wet packaging materials will discolor and may stain aluminum finishes and paints.
3. All materials should be checked for quantity and quality upon receipt, YKK AP must be notified immediately of any discrepancies in shipment. Check to make sure that you have the required shims, sealants, supplies, and tools necessary for the installation.
4. Carefully check the openings and surrounding conditions that will receive your material. Remember, if the construction is not per the construction documents, it is your responsibility to notify the general contractor in writing. Any discrepancies must be brought to the general contractor's attention before you proceed with the installation.
5. Collect your shop drawings, materials, packing list, and this installation manual. Carefully review parts location, the sequence of installation, when you glaze it, and how you seal it. Installation instructions are of a general nature and may not cover every condition you will encounter. The shop drawings and/or installation manuals were prepared specifically for the product.
6. Any material substitutions must be of equal or greater quality.
7. Make certain that material samples have been sent for compatibility testing for all manufacturer's sealants involved. Make certain that sealants have been installed in strict accordance with the manufacturer's recommendations and specifications.
8. Consult sealant manufacturer for proper sealant and backer rod selection.
 - A. Small Missile: YKK AP approved silicone for exterior cap bead.
 - B. Large Missile: Use only YKK AP approved structural silicone.

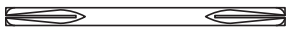
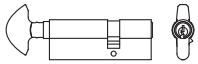
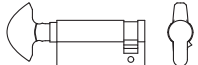
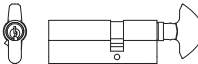
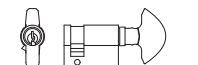
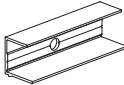


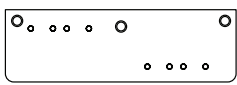
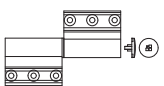

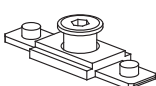
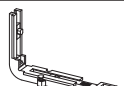

For projects in Florida, refer to Florida Product Approvals for approved sealants. For all other projects, refer to approved shop drawings and engineer of record.

9. Remember to isolate, in an approved manner, all aluminum from uncured masonry or other incompatible materials.
10. System-to-structure fasteners are not supplied by YKK AP.

INSTALLATION NOTES

11. If any questions arise concerning YKK AP products or their installation, contact YKK AP for clarification before proceeding.
12. YKK AP Terrace door installation is typically completed before drywall, flooring and other products which may still be in process. Take the extra time to wrap and protect the installed material.
13. Cutting tolerances are plus or minus 1/32" unless otherwise specified.
14. YKK AP Model YTD 350 T architectural terrace doors are pre-finished, prefabricated, and pre-assembled products, and must be protected against damage.
15. Concrete, mortar, plaster, muriatic acid and other alkaline and acid based construction and cleaning materials may be very harmful to finishes and should be removed with water and mild soap immediately or permanent damage or staining of the finishes will occur. A spot test is recommended before any cleaning agent is used, and abrasive type cleaners must never be used.
16. YKK AP systems are never to be used as ladders, step stools, scaffolds or scaffold supports.
17. All work must start from, and be referenced to benchmarks, offset lines and/or column centerlines established by the architectural drawings and the general contractor.
18. All systems must be installed plumb, square, level and true, and in accordance with approved shop drawings and these installation instructions.
19. Glass and glazing building codes governing the design and use of products vary widely. YKK AP America Inc. does not control the selection of products, product configurations, operating hardware and function, or glazing materials, and YKK AP assumes no responsibility for these design considerations. It is the responsibility of the design professional, owner, architect, specifier, general contractor, and the installer to make these selections in strict accordance with all applicable codes.
20. Check our website, www.ykkap.com, for the latest installation manual update prior to commencing work.






DOOR HARDWARE

DETAIL	PART NO.	DESCRIPTION	MATERIAL
	E1-1807	8mm Spindle	Zinc Plated Steel
	E1-1810	Active Cylinder (Outswing)	Brass Composite
	E1-1811	Inactive Cylinder (Outswing)	Brass Composite
	E1-1812	Active Cylinder (Inswing)	Brass Composite
	E1-1813	Inactive Cylinder (Inswing)	Brass Composite
	E1-1824	Anchor Filler	Aluminum
	E1-1831	Key - Key Cylinder	Brass Composite
	E1-1832	Shim For LCN 4031T Closer	Aluminum
	E1-1833	Drop Plate For LCN 4031T Closer	Steel
	E1-1834	Eurogroove Hinge	Aluminum
	E1-1835	Eurogroove Keeper	Stainless Steel
	E1-1836	Eurogroove Pawl	Stainless Steel
	E1-1837	Eurogroove Corner Transmission	Stainless Steel
	E1-1838	Eurogroove Limit Arm	Stainless Steel


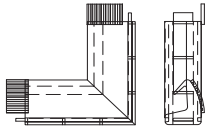
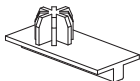
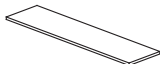
DOOR HARDWARE

DETAIL	PART NO.	DESCRIPTION	MATERIAL
	E1-1843	45mm Backset Active Lock	Stainless Steel
	E1-1844	Eurogroove Lock Strike	Stainless Steel
	E1-1845	45mm Backset Inactive Lock	Stainless Steel
	E1-1850	Sash Lift Block (Optional)	Aluminum
	P-78YTD350T	Construction Kit Construction door handle, 2.5mm, 4mm, 1/8", and 3/16" hex keys.	—




GASKETS

DETAIL	PART NO.	DESCRIPTION	MATERIAL
	E2-0050	Exterior Glazing Gasket	Black EPDM
	E2-0083	Push-in Gasket	Black EPDM
	E2-0625	Airtight Gasket	Black Santoprene
	E2-0626PC	Setting Block	Black EPDM
	E2-0726	Gasket For BE9-4824 Low-Profile Threshold	Black EPDM
	E2-0732	Glazing Tape For Structural Glazing	Black Polyurethane Foam, 1/4" F.C.

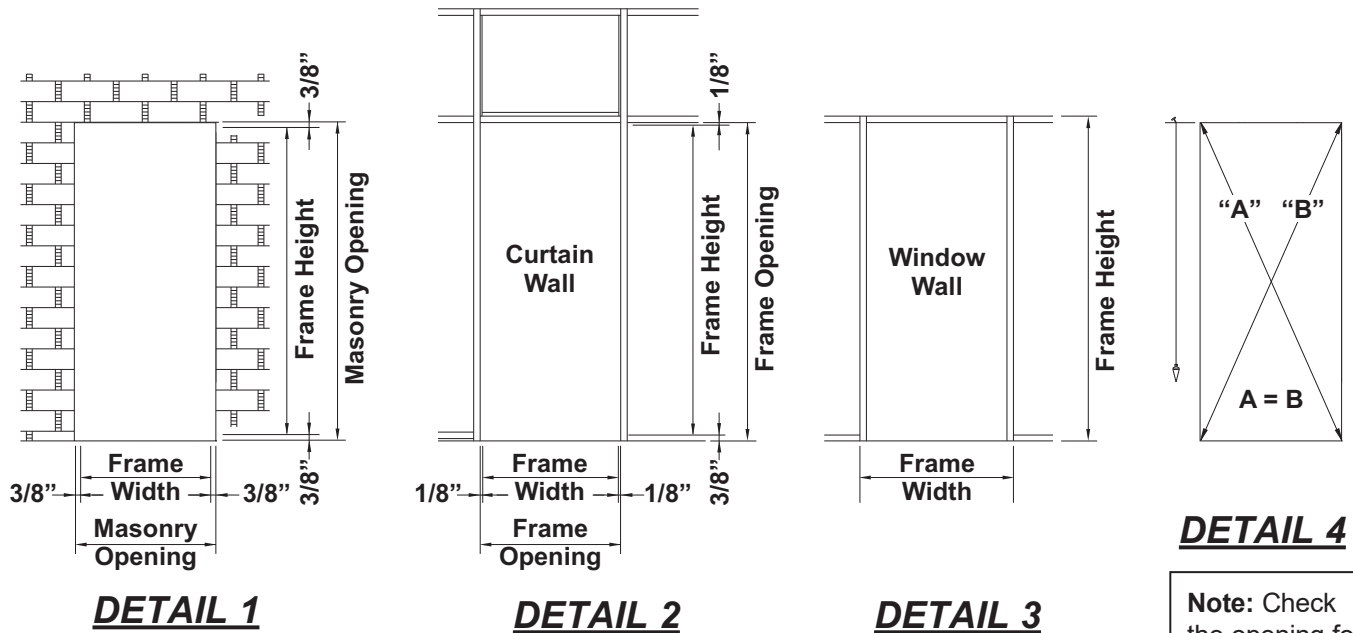
GASKETS (Cont.)

DETAIL	PART NO.	DESCRIPTION	MATERIAL
	See Page-22	Active and Inactive Lever Handles and Escutcheon Plates	--
	E2-0750	Air Seal Gasket	Black EPDM
	E2-0751	Air Seal Corner	Black EPDM
	E2-0752	Glazing Tape	PolyUrethane
	E2-0753	Astragal End Plug	Black EPDM
	E2-0754	Glazing Shim	Black EPDM

FASTENERS

DETAIL	PART NO.	DESCRIPTION	MATERIAL
	FS-1016-SS	#10 x 1" FHSMS Tek For anchoring of E1-1835 Keeper to door frame.	Stainless Steel
	FC-1412	#14 x 3/4" FHSMS Type AB For anchoring Drop Plate to Door Top Rail	Zinc Plated Steel
	FC-1416	#14 x 1" FHSMS Type AB For anchoring Closer Track onto Door Frame	Zinc Plated Steel

VERIFY OPENING SIZE



Note: Minimum Frame Width to Meet FHA Compliance is 38”.

MASONRY PUNCHED OPENING

- Measure the width of the opening at the top, middle, and bottom.
- Select the smallest dimension measured and subtract 3/4” for frame width.
- Measure the height of the opening in several places.
- Select the smallest opening dimension and subtract 3/4” for frame height.

See **Detail 1**.

- Measure the corner to corner diagonal dimensions to ensure maximum ‘out-of-square’ is 3/16” or less.

See **Detail 4**.

CURTAIN WALL FRAMING OPENING

- Measure the width of the opening at the top, middle, and bottom.
- Select the smallest dimension measured and subtract 1/4” for frame width.
- Measure the height of the opening in several places.
- Select the smallest opening dimension and subtract 1/2” for frame height.

See **Detail 2**.

- Measure the corner to corner diagonal dimensions to ensure maximum ‘out-of-square’ is 3/16” or less.

See **Detail 4**.

WINDOW WALL FRAMING OPENING

- Measure the width of the integral door frame at the top, middle, and bottom.
- Measure the height of the integral door frame in several places.

See **Detail 3**.

- Measure the corner to corner diagonal dimensions to ensure maximum ‘out-of-square’ is 3/16” or less.

See **Detail 4**.

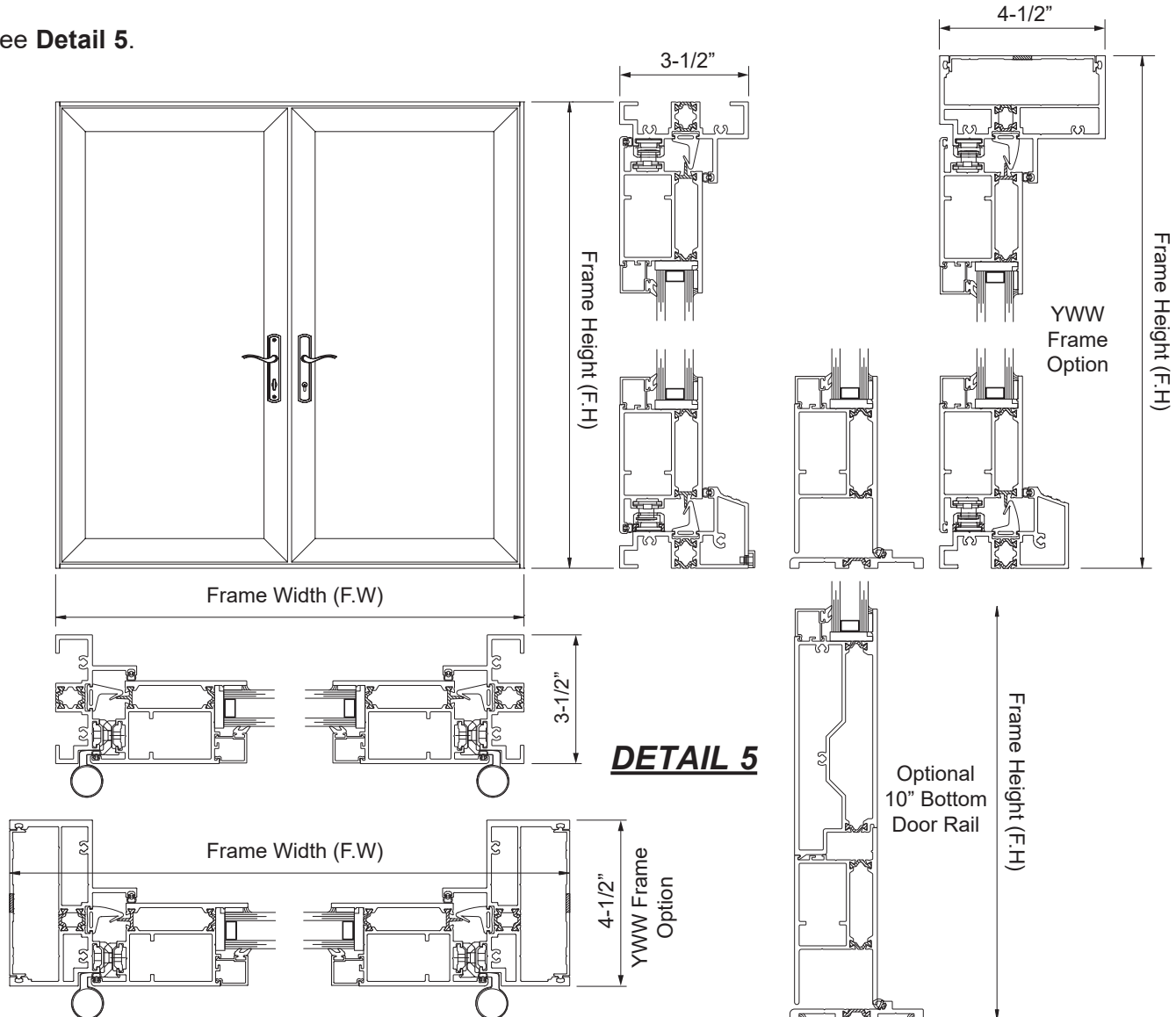
Note: Minimum frame width for FHA compliance for YWW is 40-1/2”.

Note: Check the opening for squareness and plumb at both ends. Units must be installed in a true rectangle.

CALCULATE GLASS SIZES

- Measure frame width and height as shown.
- Apply formula from table below to determine glass size.

See **Detail 5**.



Terrace Door Glass Size Formula Masonry and Curtain Wall Options

Glass Height (Std. Btm. Rail) (10" Btm. Rail)	F. H. - (minus) 9-1/4" F. H. - (minus) 15-3/16"
Glass Width for Single Door	F. W. - (minus) 9-3/16"
Glass Width for Pair Doors	$\frac{F. W.}{2}$ - (minus) 8-3/8"

Terrace Door Glass Size Formula Window Wall Option

Glass Height (Std. Btm. Rail) (10" Btm. Rail)	F. H. - (minus) 10-1/2" F. H. - (minus) 16-7/16"
Glass Width for Single Door	F. W. - (minus) 11-11/16"
Glass Width for Pair Doors	$\frac{F. W.}{2}$ - (minus) 9-5/8"

Note: Glass size formula is the same with low-threshold option as it is with standard threshold.

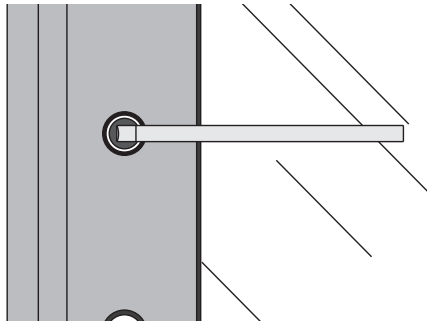
PREPARATION

PREP DOOR FRAME FOR ANCHORING

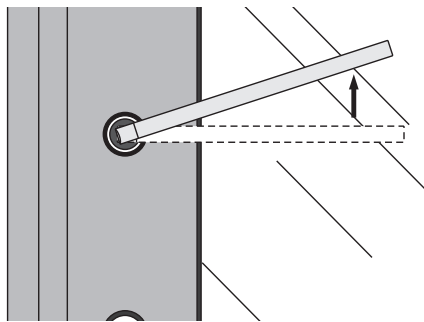
1. Remove door and frame unit from frame.
2. Disengage lock using construction key

Note: Doors are shipped with construction kit P-78YTD350T containing the construction lock handle, 2.5mm, 4mm, 1/8", and 3/16" hex keys.

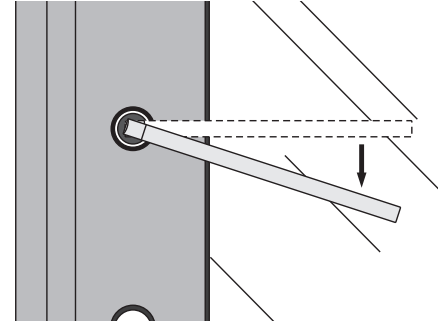
- Insert construction key (handle) into square drive of lock. See **Detail 6** (neutral position).
- With handle in neutral position, operate handle upward to lock door, engaging multi-point locks. Allow handle to return to neutral position. See **Detail 7**.
- With handle in neutral position, operate handle downward to unlock door, disengaging multi-point locks. See **Detail 8**.
- Remove and safeguard construction key for use on other terrace doors.



DETAIL 6 – Neutral



DETAIL 7 – Lock



DETAIL 8 – Unlock

3. Disengage unit by removing fastener connecting the arm to the frame base.

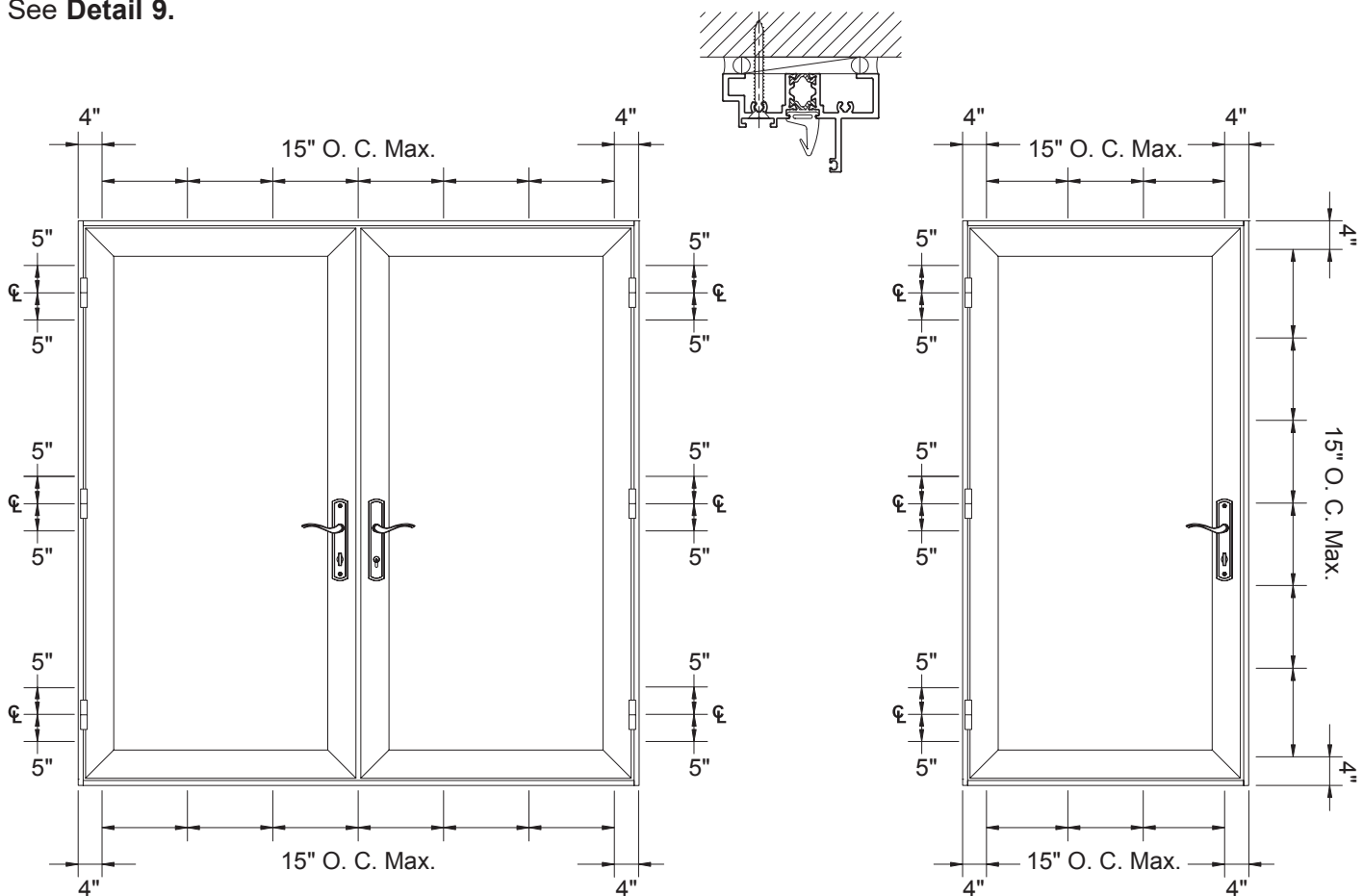
PREPARATION

PREP DOOR FRAME FOR ANCHORING (Continued)

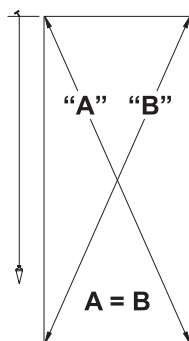
4. Carefully lift the door off of the frame pivots and set on cardboard to protect finish.
5. Prep the door frame for anchors per approved shop drawings or engineering calculations.
6. On hinge jamb only, minimum anchor locations are at 5" above and below each pivot hinge center line.
7. On head, sill, and lock jamb, minimum anchor locations are at 4" in each direction from the corners of the frame, and then 15" maximum on center.

Note: Screw locations may be adjusted to avoid interference with pivot hardware.

See **Detail 9**.



DETAIL 9



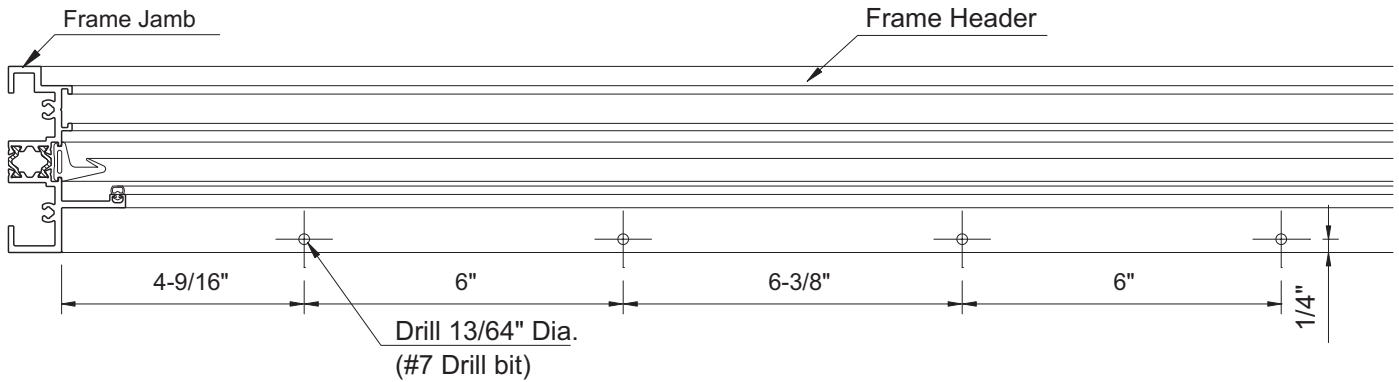
PREPARATION

PREP FOR OPTIONAL LCN 4031T CLOSER

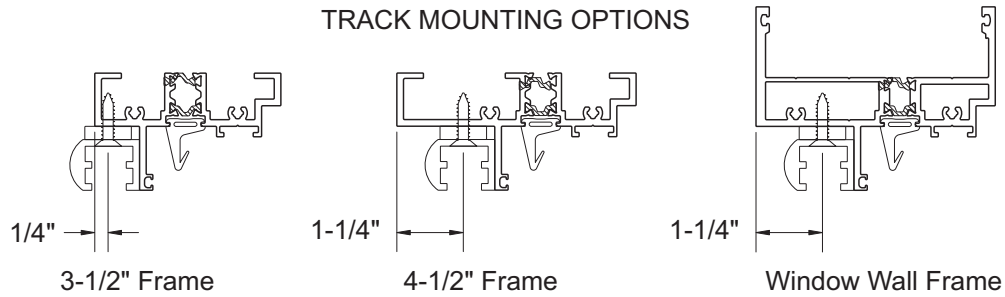
Note: If door installation does not include a closer, skip this step.

-Prepare terrace door frame by drilling four 13/64" (#7 Drill Bit) holes.

See Detail 10.



TRACK MOUNTING OPTIONS

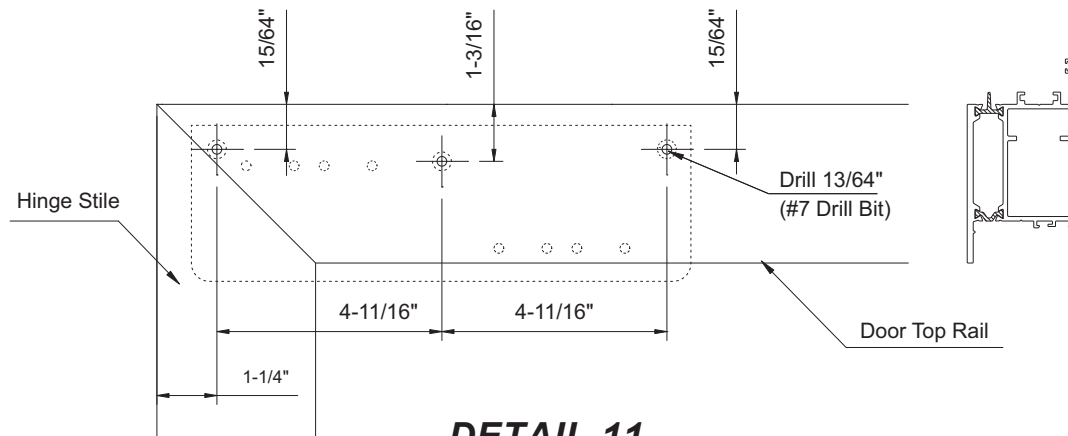


DETAIL 10

Prepare door leaf for mounting of E1-1833 drop plate.

-Drill four 13/64" (#7 drill bit) holes in top rail of door leaf.

See Detail 11.



DETAIL 11

INSTALL FRAME

Note: Terrace Doors can be purchased pre-glazed by the manufacturer or unglazed. For doors pre-glazed by the manufacturer, the “Glazing” Section can be skipped.

Doors purchased unglazed can be shop-glazed or field glazed. These installations follow the sequence for field glazing. However, if the installer chooses to shop glaze, the field glazed instructions can be used for shop-glazing purposes and should be completed prior to the frame installation.

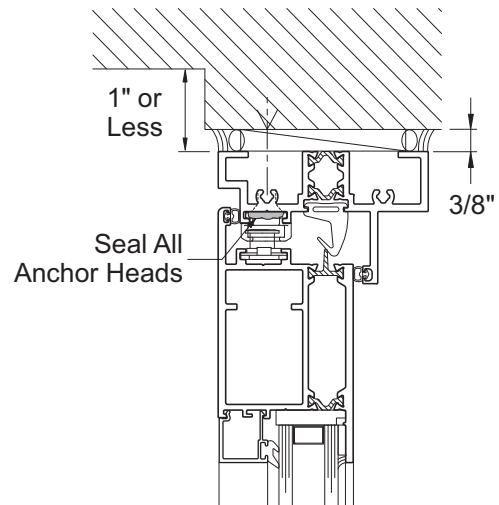
FRAME MUST BE INSTALLED PLUMB, LEVEL, AND SQUARE.

Note: If there is 1” or less clearance above the door frame opening, the door and frame must be installed as a unit.

Option: If the clearance is greater than 1”, the frame may be installed separate from the door.

INSTALL DOOR AND FRAME UNIT

- Rehang the door on the door frame, reattach limit arm, and lock door.
- If there is less than 1" of clearance above the door frame opening, door and frame must be installed as a unit.
- Lock door.
- Stand unit in opening.
- Shim at anchor locations to ensure that the frame is installed square, level and plumb.
- Check the opening for squareness and plumb at both ends. Units must be installed in a true rectangle. See **Detail 9**.
- Carefully open door to 90° and support lock stile to keep bottom rail level while anchoring.
- Anchor unit in opening, using only flat head anchors.
- Check for proper swing by making sure door stops at any given open position. If door does not stop as described, adjust hinges.
- See **Page 15, Detail 26**.
- Tighten all anchors. Seal all anchor heads. See **Detail 12**.



DETAIL 12

INSTALL FRAME

INSTALL FRAME WITHOUT DOOR OPTION

- Lift door panel off of pivots and store safely until frame is installed.
- Shim at anchor locations to ensure that the frame is installed square, level and plumb.
- Check the opening for squareness and plumb at both ends. Units must be installed in a true rectangle.

See **Detail 9**.

- Anchor frame in opening, using only flat head anchors.
- Lift door onto pivots.
- Check for proper swing by making sure door stops at any given open position. If door does not stop as described, adjust hinges.

See **Page 26, Detail 15**.

- Tighten all anchors. Seal all anchor heads.

CAUTION: Never loosen the frame portion of any of the pivots.

- Seal the heads of all frame anchors.
- Install backer rod and apply perimeter sealant.

See **Detail 13**.

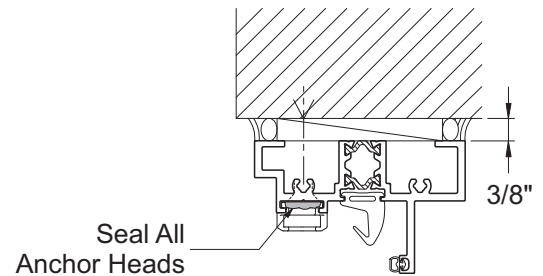
Note:

YTD 350 Terrace Doors have three glazing methods:

- 1: YTD 350 T - Non-impact Glazing Method (see page 8)
- 2: YTD 350 TH - Impact Cap Seal Method (see page 10)
- 3: YTD 350 TH - Impact Structural Glazing Method (see page 12)

The following sections include the complete glazing sequence for each method shown above. Continue onto the Hardware Adjustment section at the completion of one of the three door glazing methods.

Note: Do not apply any sealant until door is properly aligned.



DETAIL 13

GLAZING
YTD 350 T NON-IMPACT GLAZING METHOD

PREP DOORS FOR GLAZING

Doors must be glazed plumb, level, and square.

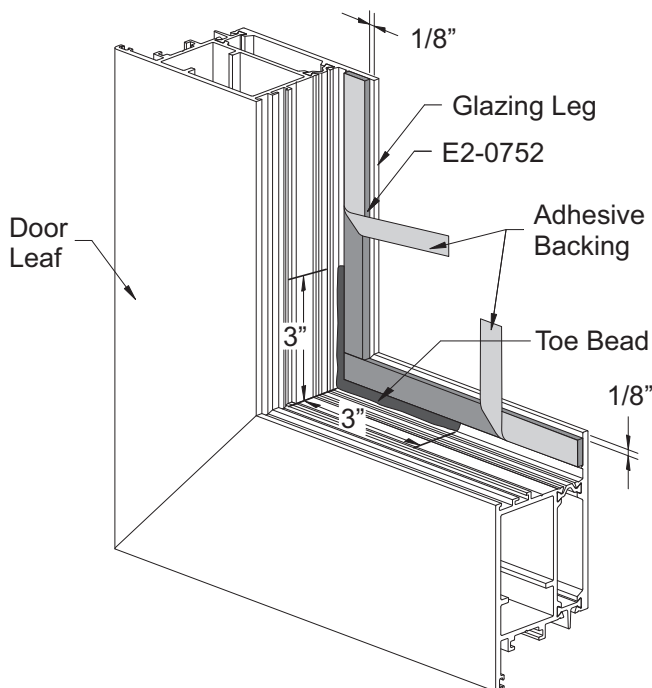
- Terrace doors may be removed from the frame to simplify the glazing process.
- If doors are removed from the frame, doors must be glazed flat and square.
- Terrace doors require "Corner Blocking" for proper operation.

- Remove the glazing beads and clean the glazing leg with an approved cleaning agent using the "two cloth" cleaning method.
- Install glazing tape, E2-0752, on all four sides:
 - Leave a 1/8" gap between the edge of the tape and the edge of the door.
 - Make certain that the corners of the tape do not overlap as this will prevent full contact around the perimeter of the glass.
- Peel back the tape adhesive backing 3" to 4" at each corner and fold them towards the inside of the door.
- Apply "toe bead" of sealant under glazing tape 3" in each direction from all corners.

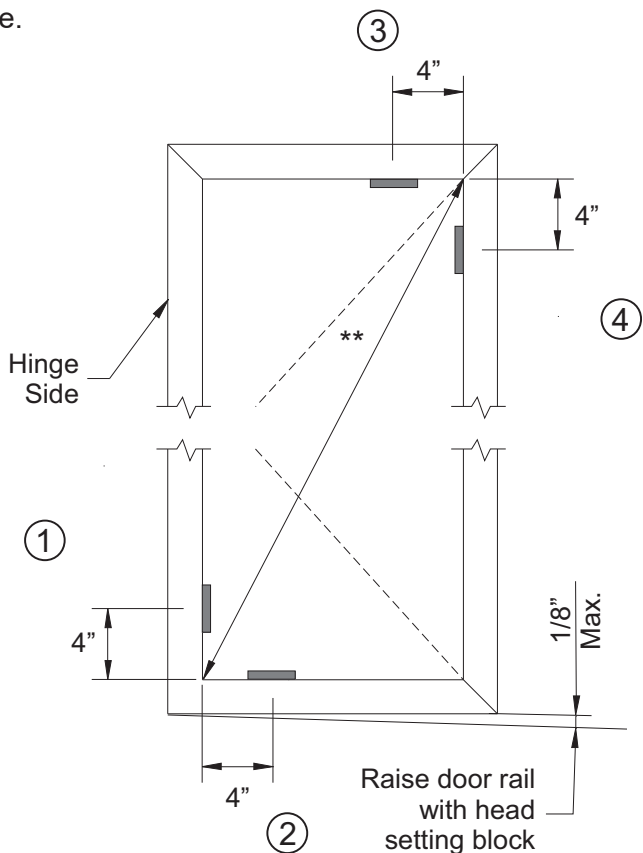
See **Detail 14**.

** Glass weight is transferred to bottom corner and hinge.

See **Detail 15**.



DETAIL 14

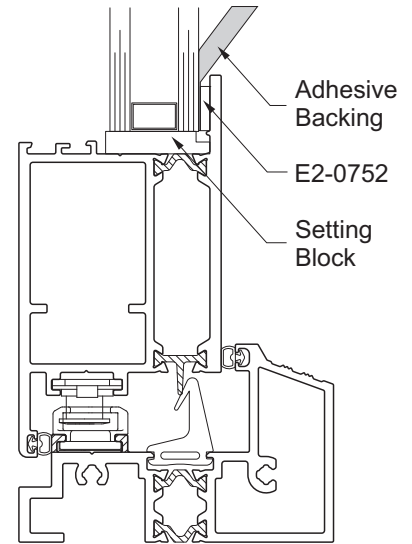


DETAIL 15

GLAZING YTD 350 T NON-IMPACT GLAZING METHOD

INSTALL GLASS

- Install corner blocks E2-0626 at locations 1, 2, and 4. See **Detail 15**.
- Center the glass and carefully set the unit down onto the setting blocks.
- Check door for squareness.
- Door must be glazed as a true rectangle. See **Detail 15**.
- Carefully open the door. If door is removed from frame, door must be glazed square.
- Raise the locking rail 1/8" and install corner block E2-0626 at position #3. Insert additional 1/16" glazing shims E2-0754 to properly shim glass in place if necessary. See **Detail 15**.
- Install the E9-4861 glass stops.
- Trim glazing gasket leaving 1/8" excess at each end. Install the vertical glass stop first by engaging the heel ① first then snapping in the toe ②.



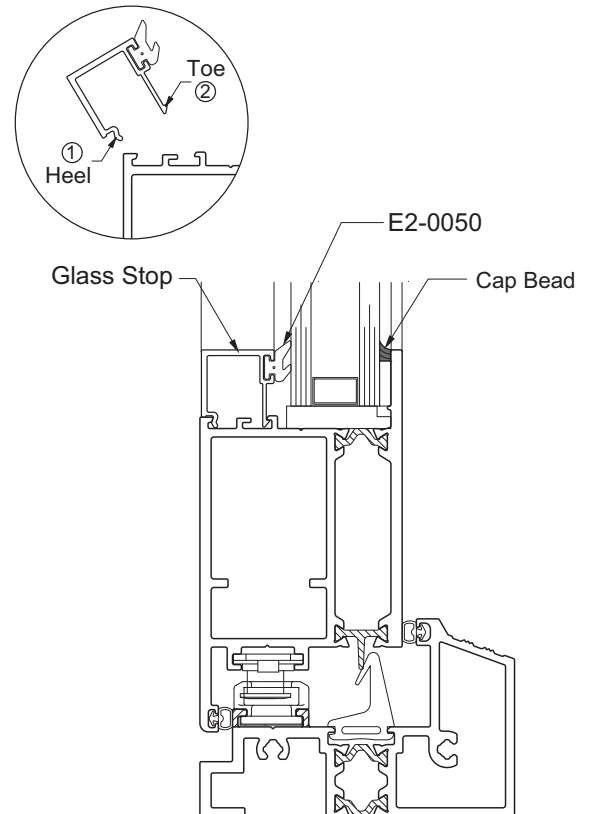
DETAIL 16

See **Detail 16**.

APPLY CAP BEAD

- Apply cap bead (Tremco Tremsil® 600 sealant or equal) to the joint between the glass and glazing leg. When applying sealant vertically, start at the bottom and work your way up. Make sure the sealant completely fills the joint.
- Using a non-scratching implement, tool the sealant immediately after running the bead. Exert positive pressure to ensure that the sealant makes complete contact with all surfaces. Be careful not to remove too much sealant.

See **Detail 17**.



DETAIL 17

GLAZING
YTD 350 TH IMPACT CAP SEAL METHOD

PREP DOORS FOR GLAZING

Doors must be glazed plumb, level, and square.

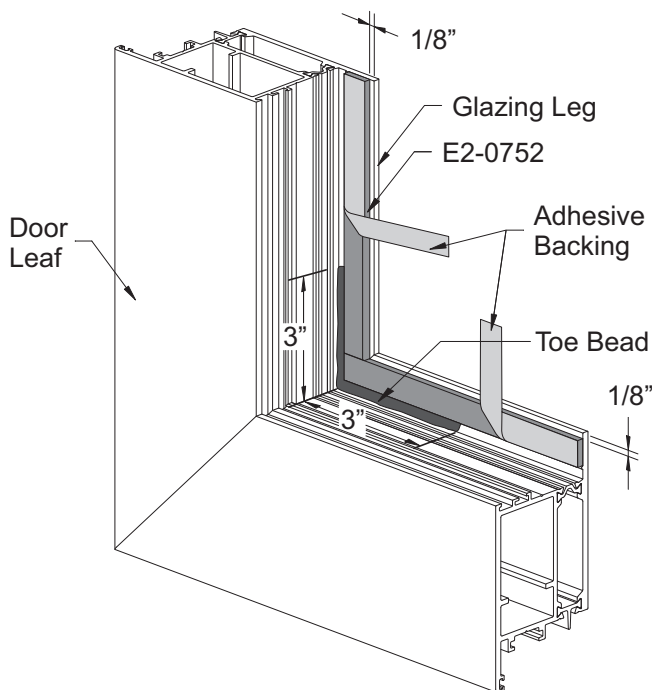
- Terrace doors may be removed from the frame to simplify the glazing process.
- If doors are removed from the frame, doors must be glazed flat and square.
- Terrace doors require "Corner Blocking" for proper operation.

- Remove the glazing beads and clean the glazing leg with an approved cleaning agent using the "two cloth" cleaning method.
- Install glazing tape, E2-0752, on all four sides:
 - Leave a 1/8" gap between the edge of the tape and the edge of the door.
 - Make certain that the corners of the tape do not overlap as this will prevent full contact around the perimeter of the glass.
- Peel back the tape adhesive backing 3" to 4" at each corner and fold them towards the inside of the door.
- Apply "toe bead" of sealant under glazing tape 3" in each direction from all corners.

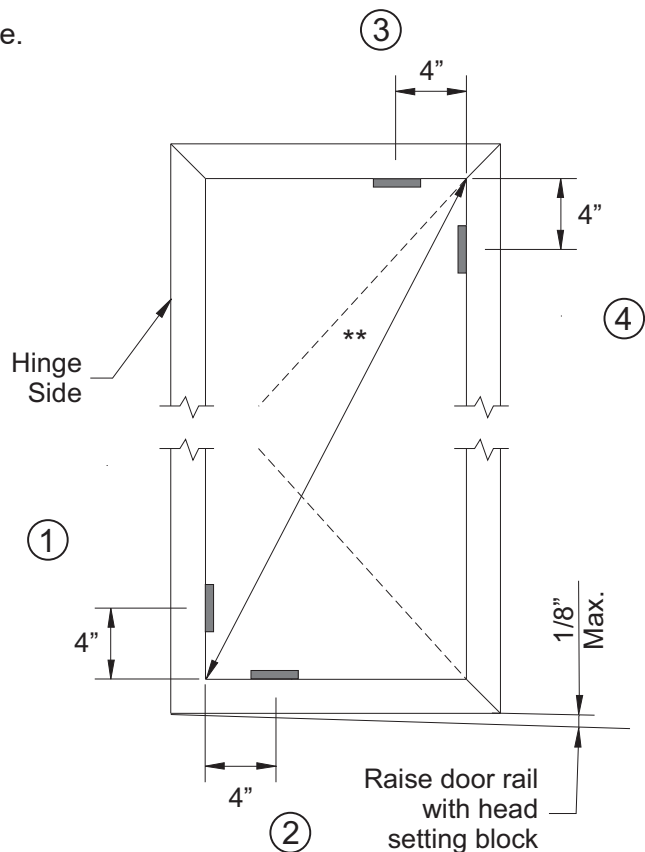
See **Detail 18**.

** Glass weight is transferred to bottom corner and hinge.

See **Detail 19**.



DETAIL 18



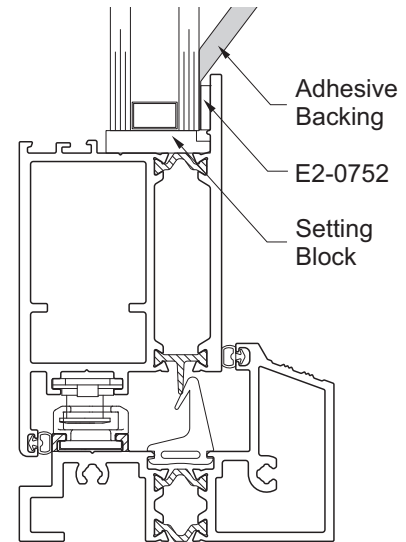
DETAIL 19

GLAZING

(FOR CAP SEAL GLAZING) INSTALL GLASS

- Install corner blocks E2-0626 at locations 1, 2, and 4. See **Detail 19**.
- Center the glass and carefully set the unit down onto the setting blocks.
- Check door for squareness.
- Door must be glazed as a true rectangle. See **Detail 19**.
- Carefully open the door. If door is removed from frame, door must be glazed square.
- Raise the locking rail 1/8" and install corner block E2-0626 at position #3. Insert additional 1/16" glazing shims E2-0754 to properly shim glass in place if necessary. See **Detail 19**.
- Install E9-4808 glass stops by inserting into opening and sliding into place.
- Install E2-0083 wedge gasket:
 - Cut glazing gaskets to Daylight Opening plus(+) 3/16" for each foot of length.
 - Insert the gasket into the reglet at each end first, and then insert the gasket at the midpoint of the opening.
 - Push the gasket into the reglet starting at the midpoint and work towards each end.

See **Detail 20**.



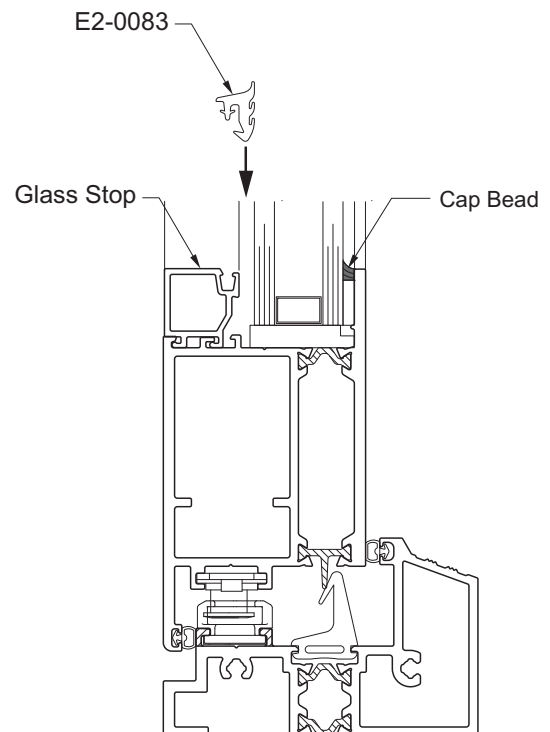
DETAIL 20

APPLY CAP BEAD

- Apply cap bead (Tremco Tremsil® 600 sealant or equal) to the joint between the glass and glazing leg. When applying sealant vertically, start at the bottom and work your way up. Make sure the sealant completely fills the joint.
- Using a non-scratching implement, tool the sealant immediately after running the bead. Exert positive pressure to ensure that the sealant makes complete contact with all surfaces.

Be careful not to remove too much sealant.

See **Detail 21**.



DETAIL 21

GLAZING
YTD 350 TH IMPACT STRUCTURAL SEAL METHOD

PREP DOORS FOR GLAZING

Doors must be glazed plumb, level, and square.

- Terrace doors may be removed from the frame to simplify the glazing process.
- If doors are removed from the frame, doors must be glazed flat and square.
- Terrace doors require "Corner Blocking" for proper operation.

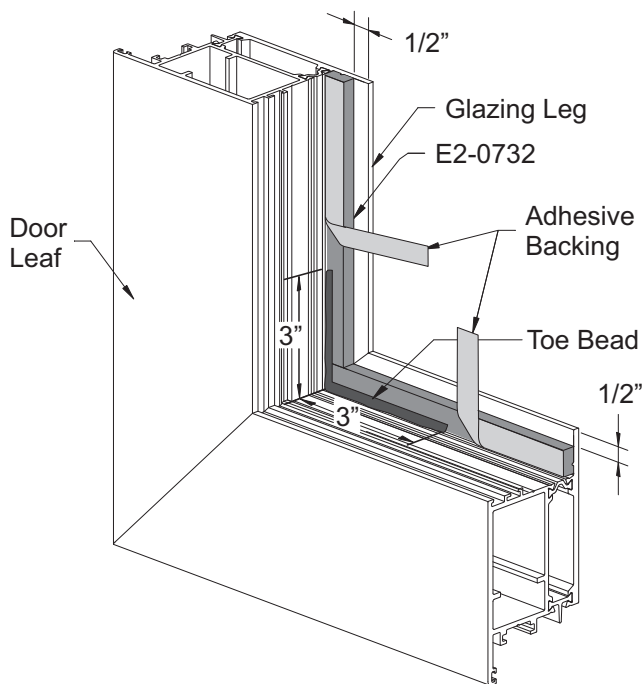
- Remove the glazing beads and clean the glazing leg with an approved cleaning agent using the "two cloth" cleaning method.
- Install glazing tape, E2-0732, on all four sides:
 - Leave a 1/2" gap between the edge of the tape and the edge of the door.
 - Make certain that the corners of the tape do not overlap as this will prevent full contact around the perimeter of the glass.
- Peel back the tape adhesive backing 3" to 4" at each corner and fold them towards the inside of the door.
- Apply "toe bead" of sealant under glazing tape 3" in each direction from all corners.

See **Detail 22**.

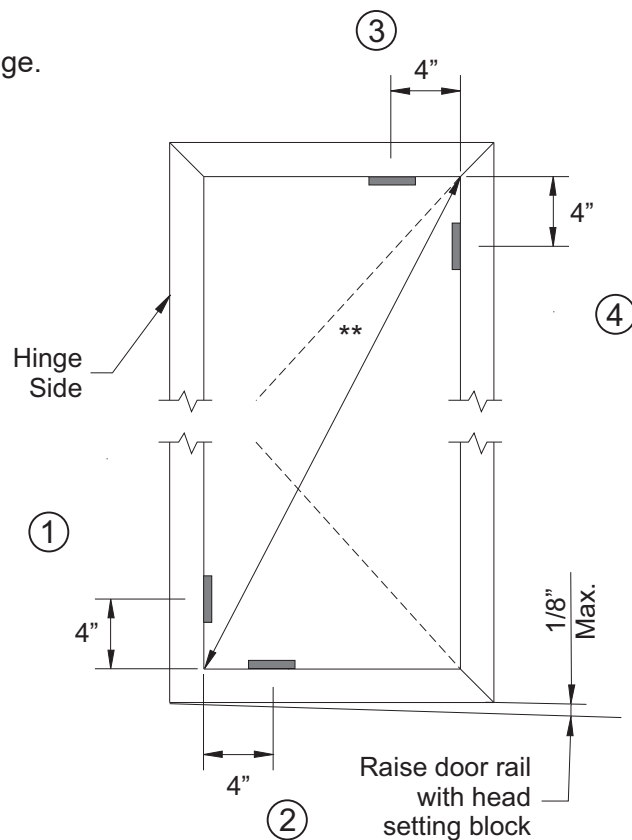
* Door must be glazed square.

** Glass weight is transferred to bottom corner and hinge.

See **Detail 23**.



DETAIL 22



DETAIL 23

GLAZING

(FOR STRUCTURAL GLAZING) INSTALL GLASS

- Install corner blocks E2-0704 at locations 1, 2, and 4. See **Detail 23**.
- Center the glass and carefully set the unit down onto the setting blocks.
- Check door for squareness.
- Door must be glazed as a true rectangle. See **Detail 23**.
- Carefully open the door. If door is removed from frame, door must be glazed square.
- Raise the locking rail 1/8" and install corner block E2-0704 at position #3. Insert additional 1/16" glazing shims E2-0754 to properly shim glass in place if necessary. See **Detail 23**.
- Install E9-4809 glass stops by inserting into opening and sliding into place.
- Install E2-0083 wedge gasket:
 - Cut glazing gaskets to Daylight Opening plus(+) 3/16" for each foot of length.
 - Insert the gasket into the reglet at each end first, and then insert the gasket at the midpoint of the opening.
 - Push the gasket into the reglet starting at the midpoint and work towards each end.

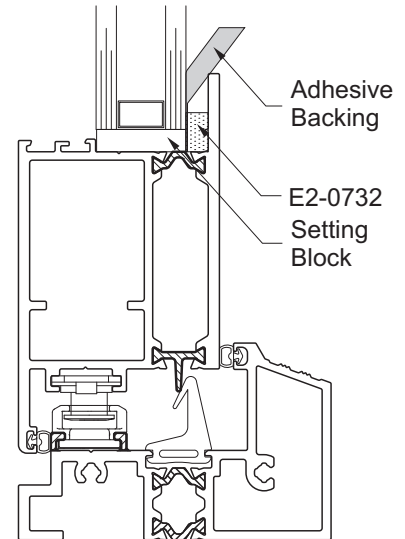
See **Detail 24**.

APPLY STRUCTURAL SEAL

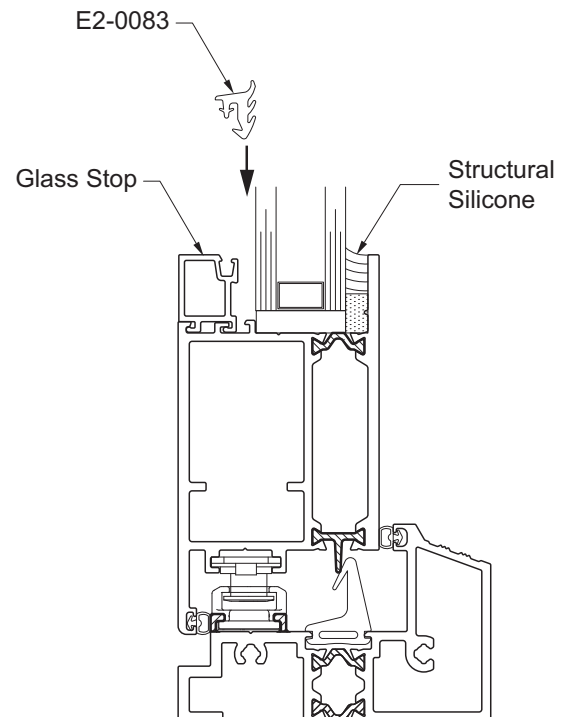
- Apply an approved structural silicone bead to the joint between the glass and glazing leg. When applying sealant vertically, start at the bottom and work your way up. Make sure the sealant completely fills the joint.
- Using a non-scratching implement, tool the sealant immediately after running the bead. Exert positive pressure to ensure that the sealant makes complete contact with all surfaces.

Be careful not to remove too much sealant.

See **Detail 25**.



DETAIL 24



DETAIL 25

VERIFY PROPER ALIGNMENT

- Close the door completely compressing the gaskets.
- Insert the construction key (handle) into square drive of lock and lock the door by lifting up on the door handle as previously shown on **Detail 7** on **Page 3**.
 - Check that the reveal around the door is even and approximately 5/16" on all sides.
 - Check that the swinging of the door is not causing the central gasket or gasket corners to disengage or roll.
 - Inspect the keepers for signs of rubbing or hitting.
- If necessary adjust the hinges, keepers, and limit devices to ensure the proper operation of locking devices and the compression of the weather seal to meet the requirements above.
- All hardware must be cleaned and lubricated as necessary to provide smooth operation.

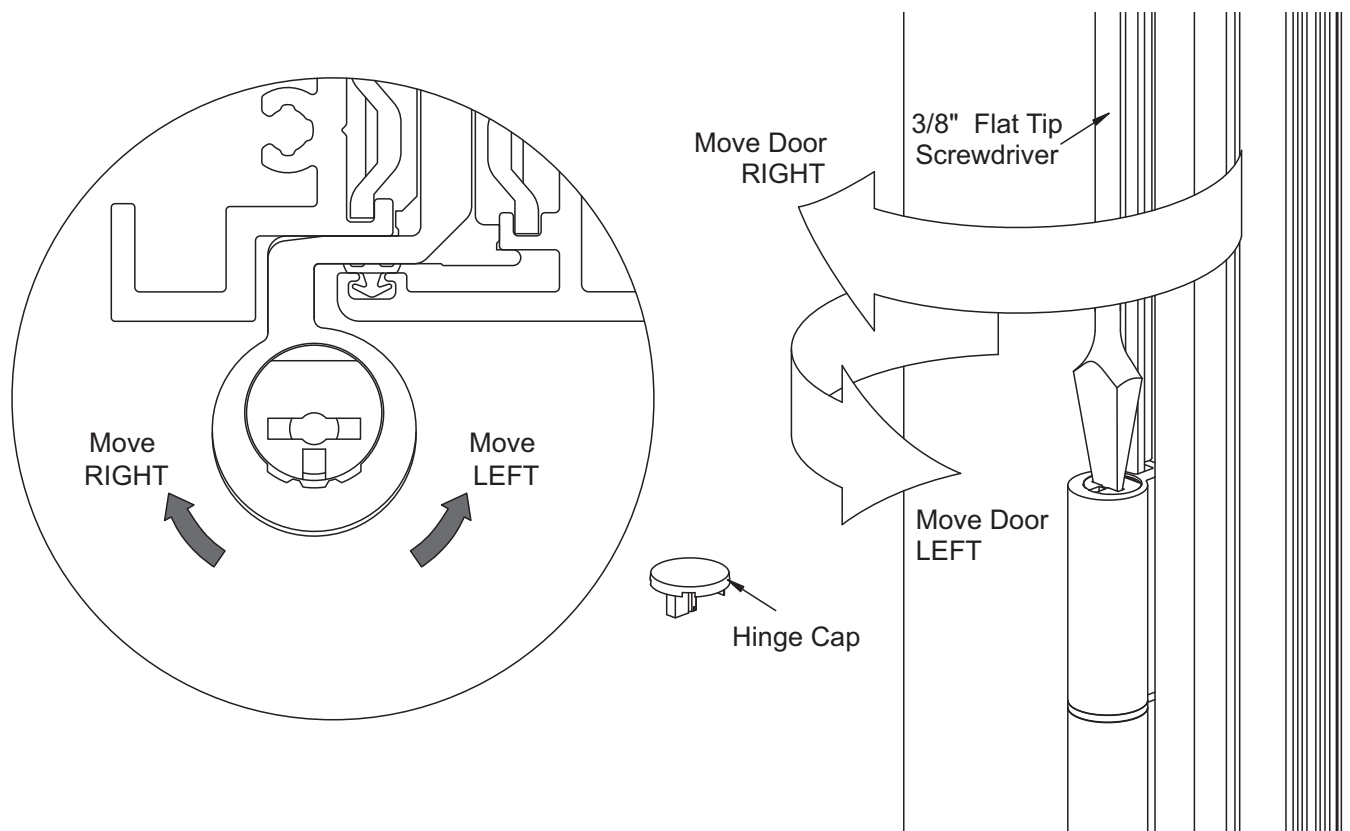
ADJUSTMENTS

LATERAL HINGE ADJUSTMENT

- Remove top end caps using small flat head screwdriver.
- Maximum adjustment is plus 1/16".
- Use 3/8" flat head screwdriver to turn bushing.
- To adjust door laterally:
 - B. Turn bushing left to move door stile to the right.
 - C. Turn bushing right to move door stile to the left.
- Replace end caps.

See **Detail 26**.

Note: The adjustments described above are meant to align doors to attain a uniform gap between door leaves and frame on all four sides.

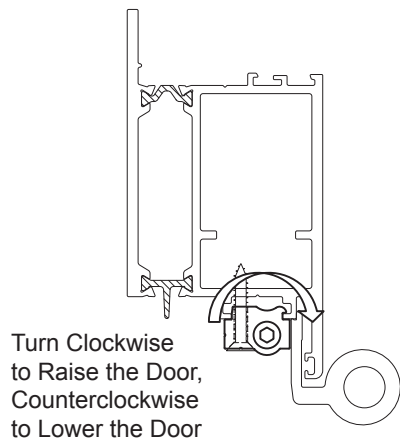


DETAIL 26 – Left/Right

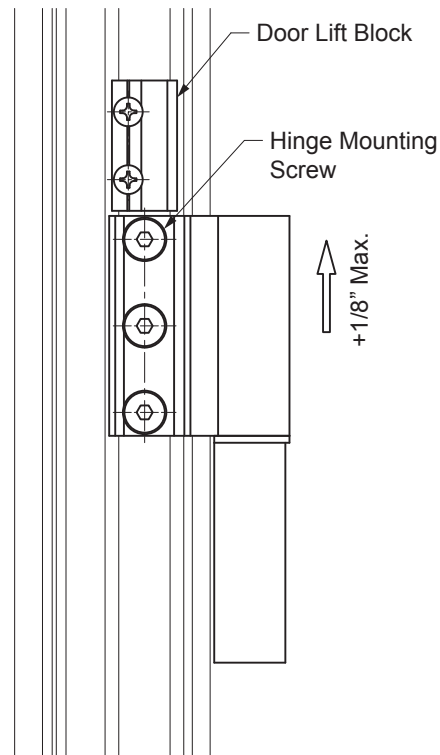
ADJUSTMENTS

VERTICAL HINGE ADJUSTMENT USING OPTIONAL SASH LIFT BLOCK (E1-1850)

- Open the door to a minimum of 90° to allow access to hinge screws.
- Turn set screw in Door Lift Block E1-1850 so it has about 1/16" extending below the bottom of the block.
- Attach Door Lift Block to the door stile above the bottom hinge. See **Detail 27**.
- Loosen the (3) hinge mounting screws on the door side only using a 4mm allen hex key. See **Detail 28**.
- Turn set screw in the top of the lift block clockwise to raise the door. Maximum lift is 1/8".
- Retighten all the hinge mounting screws.
- Lift Block will remain installed in the door to eliminate slip.



DETAIL 27



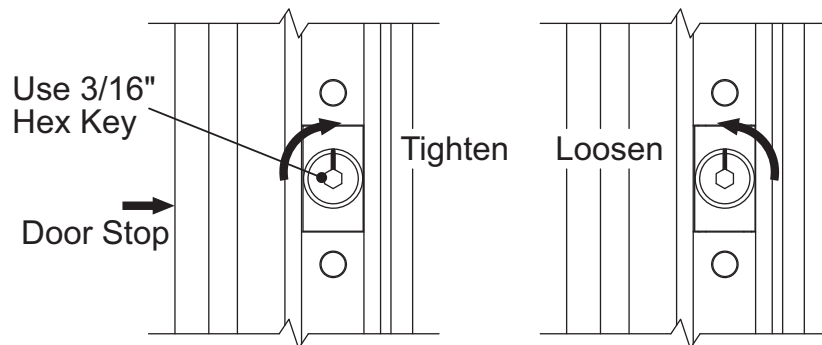
DETAIL 28

ADJUSTMENTS

LOCKING POINT ADJUSTMENT

Adjust flushness of door keepers as necessary.

- Neutral with line pointing towards keepers.
See **Detail 29**.
- Use 3/16" hex key to rotate lock point.
 - Turn line away from door stop to tighten seal.
 - Turn line toward door stop to loosen seal.

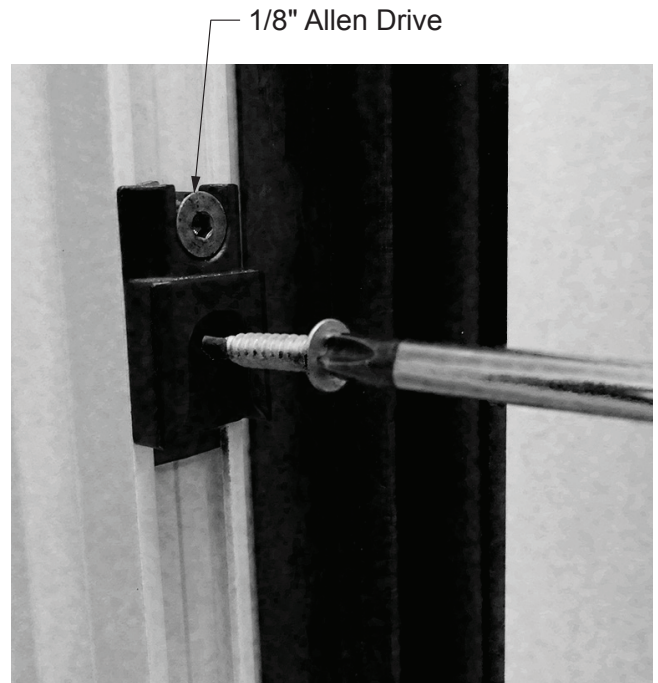


DETAIL 29 – In/Out

KEEPER ADJUSTMENT

Adjust left/right free swing clearance of door keepers as necessary.

- Neutral as factory installed.
See **Detail 30**.
- Use 1/8" hex key to lightly loosen fastener.
 - Slide keeper to allow 1/8" clearance from locking point.
 - Using 1/8" hex key tighten fastener.
 - After final adjustment install FS-1016 to lock keeper in place.



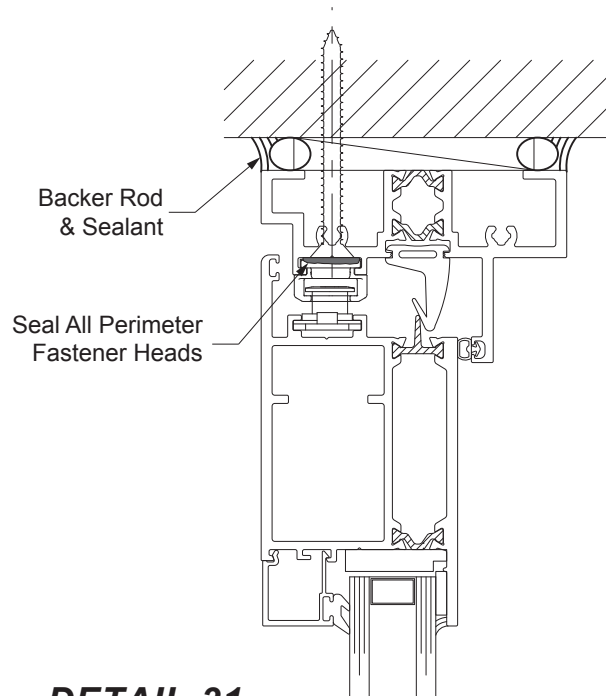
DETAIL 30 – Keeper Lock Down

APPLY SEALANT

Once all adjustments are complete and door is operating and locking properly:

- Seal the heads of all perimeter fasteners.
- Install a backer rod and apply perimeter sealant to both interior and exterior as shown on approved shop drawings.

See **Detail 31**.

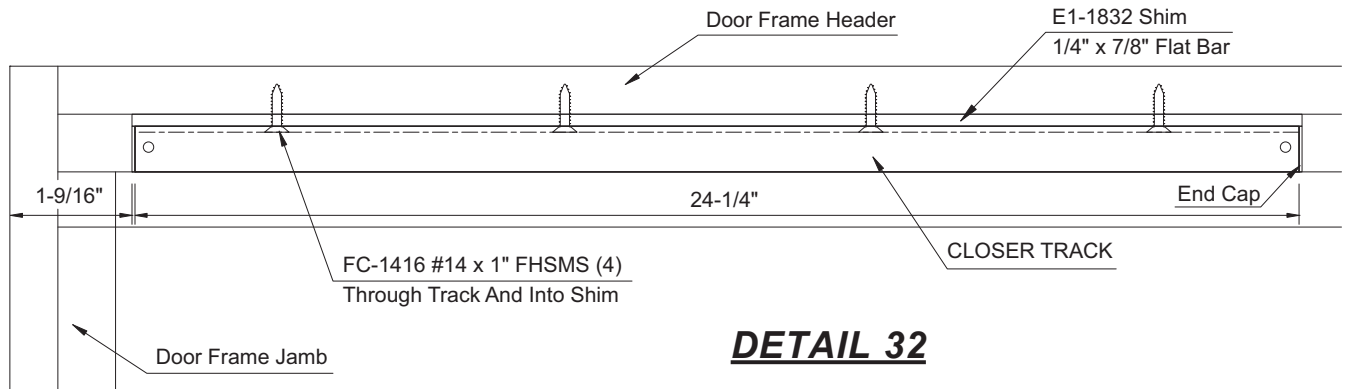


DETAIL 31

INSTALL DOOR CLOSER

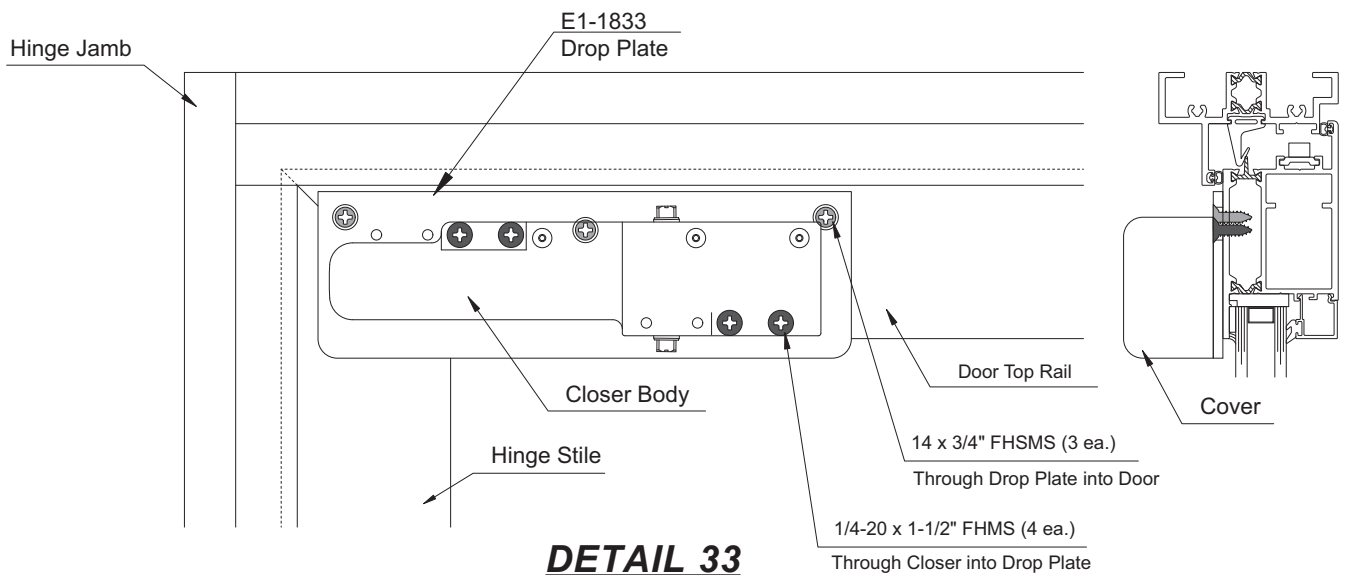
-Install E1-1832 shim and closer track onto door frame using four FC-1416 fasteners provided.

See Detail 32.



- Attach E1-1833 drop plate to door top rail using three #14 x 3/4" FHSMS fasteners.
- Follow closer installation instructions to insert closer bar into track.
- Attach closer cover to closer body with provided fasteners.
- Attach closer to drop plate using three 1/4-20 x 1-1/2" FHMS fasteners.
- Follow closer manufacturer's installation instructions to adjust closer if needed.

See Detail 33.



FINISH HARDWARE

- Locate hardware package. Finish hardware includes one (1) active locking package for single doors, one (1) active locking package, and one (1) inactive locking package, for pair doors.
- Hardware package also contains a pair of door handles. The door handles will be one of the styles listed below.

Finishes:

Oil Rub Bronze, Brushed Chrome, and White Painted.

See **Detail 34**.



New Orleans Handle
Brushed Chrome Finish Shown

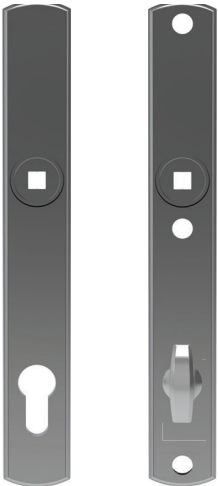


Toronto Handle
Brushed Chrome Finish Shown



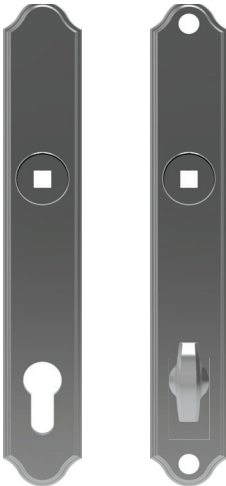
Verona Handle
Brushed Chrome Finish Shown

**New Orleans
Escutcheon
Plate**



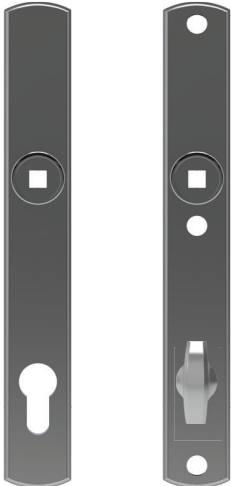
Exterior Interior

**Toronto
Escutcheon
Plate**



Exterior Interior

**Verona
Escutcheon
Plate**

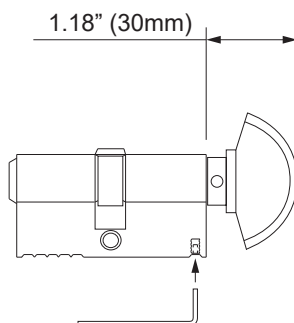


Exterior Interior

DETAIL 34

FINISH HARDWARE (Cont.)

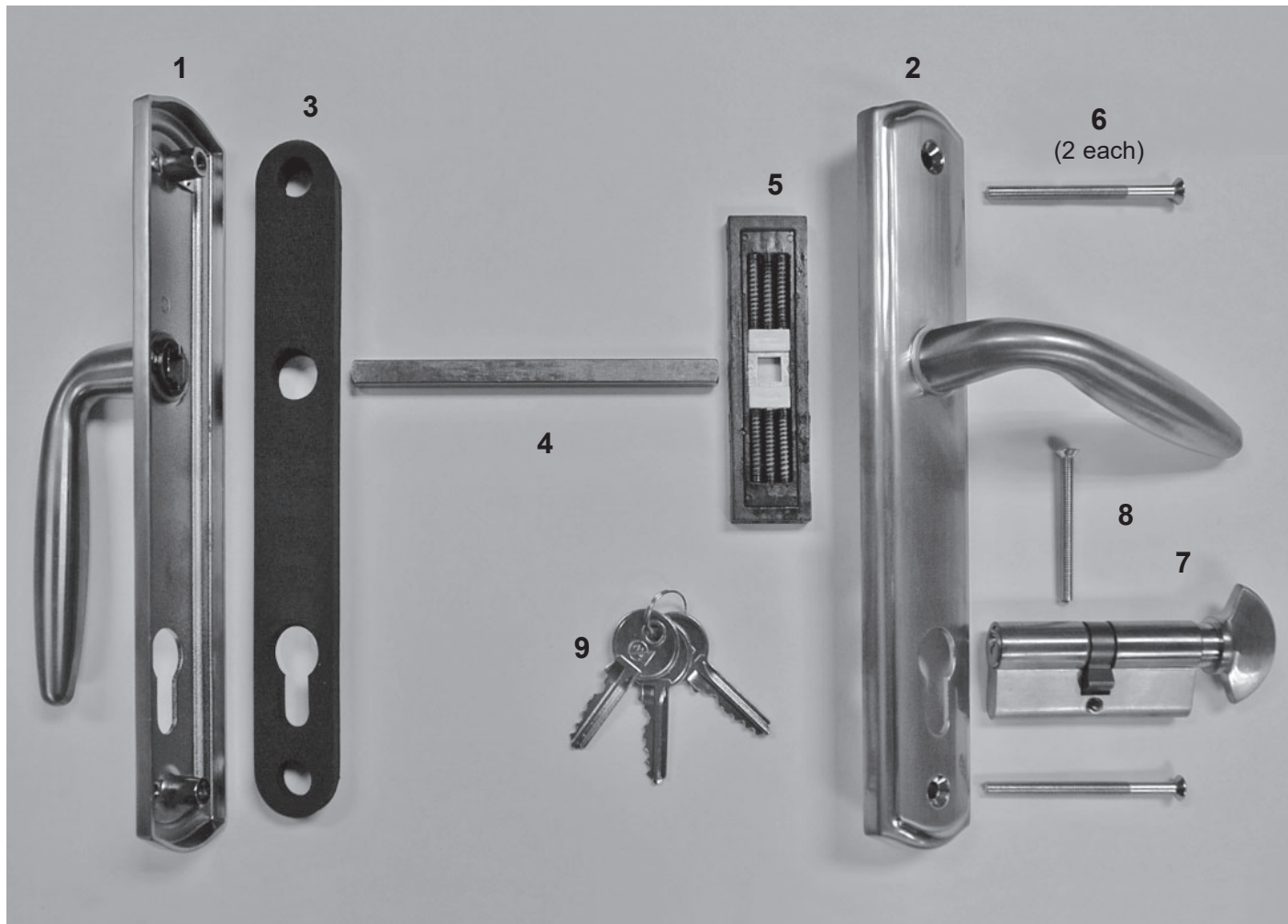
1. Punch out the pre-cut hole/slot in foam escutcheon gasket **[3]**.
2. Install escutcheon gasket on the back side of the exterior escutcheon plate **[1]**.
3. Install the spring cassette **[5]** into back side of interior escutcheon plate, lining it up with the square opening.
4. Insert the solid square spindle **[4]** into the lock mechanism.
5. Slide the interior and exterior handles onto the spindle. Be sure that the levers point toward the hinge side of the door. Also, be sure the interior escutcheon plate (with countersunk holes) is on the interior of door panel.
6. Insert the escutcheon mounting screws **[6]** through the interior escutcheon plate and screw into the exterior plate. DO NOT fully tighten the screws at this time.
7. Before inserting the cylinder **[7]**, remove the set screw from the underside of the body of the cylinder with an allen wrench as shown in **Detail 35**.



DETAIL 35

8. Insert the cylinder **[7]** through the handle and secure with the mounting screw **[8]** through the lock mechanism cover plate on latch edge of door panel. Tighten all fasteners at this time.

FINISH HARDWARE (Cont.)

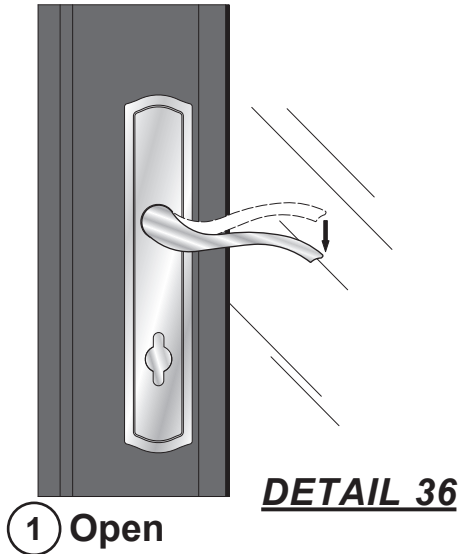


1 Exterior Escutcheon Plate & Handle	1 ea.
2 Interior Escutcheon Plate & Handle	1 ea.
3 Escutcheon Gasket	1 ea.
4 Spindle	1 ea.
5 Spring Cassette	1 ea.
6 Escutcheon Attachment Fastener	2 ea.
7 Cylinder Thumb Turn	1 ea.
8 Cylinder Fastener	1 ea.
9 Keys	3 ea.

Items 1 through 6 are in one box, items 7, 8, and 9 are in a separate box.

FINISH HARDWARE (Cont.)**LOCK OPERATION INSTRUCTIONS**

-Operate door handle and thumbturn to ensure operation.



1. **To Open** - Press down on handle and push door open. See **Detail 36**.
2. **To Weatherproof** - Close door and lift handle. See **Detail 37**.
3. **To Secure** - Close door, lift and release handle, turn thumbturn counter-clockwise or turn key clockwise. See **Detail 38**.
4. **To Unlock** - Turn thumbturn clockwise or turn key counter-clockwise. See **Detail 39**.

Note: Deadbolt is thrown with lock operation. Thumbturn prevents operation.

HARDWARE MAINTENANCE

Note: Please provide these care and maintenance instructions *for* final owner.

YKK AP recommends exterior walls be washed at least two times per year per AAMA's "CW-10" publication Care and Handling of Architectural Aluminum from shop to Site. These cleaning and lubrication tips are additional steps to provide better service life and appearance of the hardware.

General Cleaning Tips:

Clean the hardware with a clean, soft cloth and very mild soap and water. Be certain to clean all residues from the hardware to prevent build-up of grime or deposits of wax or soap.

Do not use window cleaning solutions, abrasive cleaners, bleaches, solvents, polishes or other chemical compounds. These products may remove protective coatings or scratch and remove these finishes.

Keys, rings, or other sharp objects should be kept from striking the hardware.

Finish Specific Options:

Brushed chrome can be polished using a commercially available chrome polish, following manufacturer's instructions.

PVD and painted finishes can be further protected by using a non-abrasive wax polish.

Lock Systems:

Lock systems should periodically have all moving parts oiled using a reputable lubricant.



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