



RESIDENTIAL INSTALLATION INSTRUCTIONS FOR TEUTONIC™ SWING DOOR

RECOMMENDATIONS FOR COMMON INSTALLATION OF SWING DOORS.

Installer: DO NOT DISCARD Please leave the Installation Guide with the home owner to file for future reference.

Please read and follow the Installation Instructions completely before installing. If you have any questions about this or any of our products, please call your local Kolbe & Kolbe dealer.

Proper Installation

Proper installation and maintenance of this product is essential to its performance. The following instructions are to be used as guidelines only. Kolbe recommends consulting a local Kolbe supplier or an experienced contractor, architect, or structural engineer since every installation is different. Installation of this door is the sole responsibility of the architect, contractor, building owner, or consumer and Kolbe has no responsibility in this regard.

- CAUTION: Lead-based paint may be present in older homes, and the removal of windows may cause this paint to be disturbed. In order to minimize exposure to lead-based paint dust, please consult www.epa.gov/lead for more information.
- Care must be taken to properly recycle or dispose of old materials. Any recyclable materials should be separated from non-recyclable or hazardous materials. Please consult with local or state authorities regarding proper disposal of non-recyclable or hazardous materials.

Job Site Tools for door Installation

- Steel Toe Footwear
- Hard Hat
- Harness and Tie offs (per site regulations)
- Safety Glasses
- Cordless or Pneumatic Reversible Driver
- P2 Phillips Head Bits (6 inches long)
- Cordless or Pneumatic Caulk Gun
- Level
- Tape Measure
- Construction Pencils
- Tap Con screws or Drill Hammer for applying grommets (screw sleeves) into concrete.
- Heat Gun

STEP #1: PREPARE ROUGH OPENING

1. The material/lumber quality and the fasteners must be structurally adequate for design load requirements.
2. Typically, the rough opening should be 1/2" (13mm) wider and 1/2" (13mm) higher than the outside measurement of the door frame.
3. The rough opening must be plumb, square, level and in plane.
4. Individual construction members should not be twisted.
5. The floor beneath the unit must be solid and level for proper unit operation.

STEP #2: PRELIMINARY PREPARATION

Remove the shipping packaging, skid plates or factory applied bracing. Make sure the unit is not damaged and the dimensions are appropriate for the rough opening. Check that you have all necessary hardware

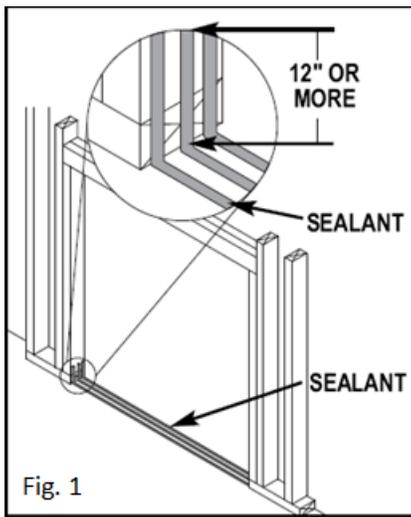
CAUTION: Before applying sealant, make sure the area to be sealed is clean, dry, and frost-free. Use color-matching or transparent sealant.

STEP #3: SEALANT AND FLASHING

Kolbe recommends following ASTM E 2112-01 guidelines for sealing and flashing exterior doors. Maintain a gap of at least 1/4" (6mm) between the door frame and the rough opening structure. Create a proper seal between the door and the building exterior. For more details, see our pamphlets *Sealant Information* and *Flashing Information*. These publications are available from your Kolbe Window and Door supplier or visit our website to download a copy.

See Fig. 1.

Apply three beads of 3/16" (5mm) diameter beads of sealant across the entire width of the subfloor between the rough opening framing. Allow some sealant to pool in the corners and carry the bead at least 12" (305 mm) up the side of the framing.



STEP #4: SELECT YOUR INSTALLATION TECHNIQUE

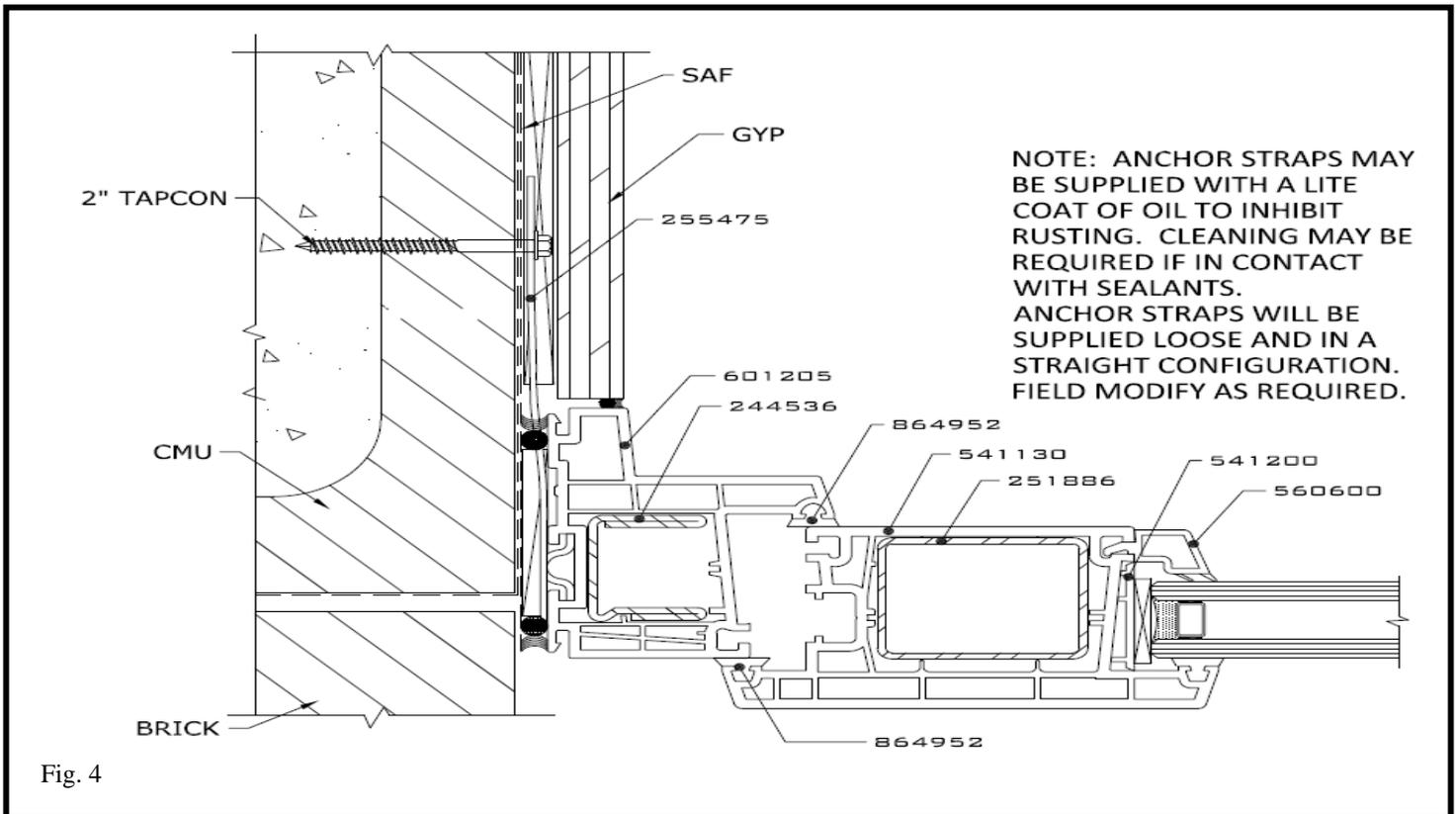
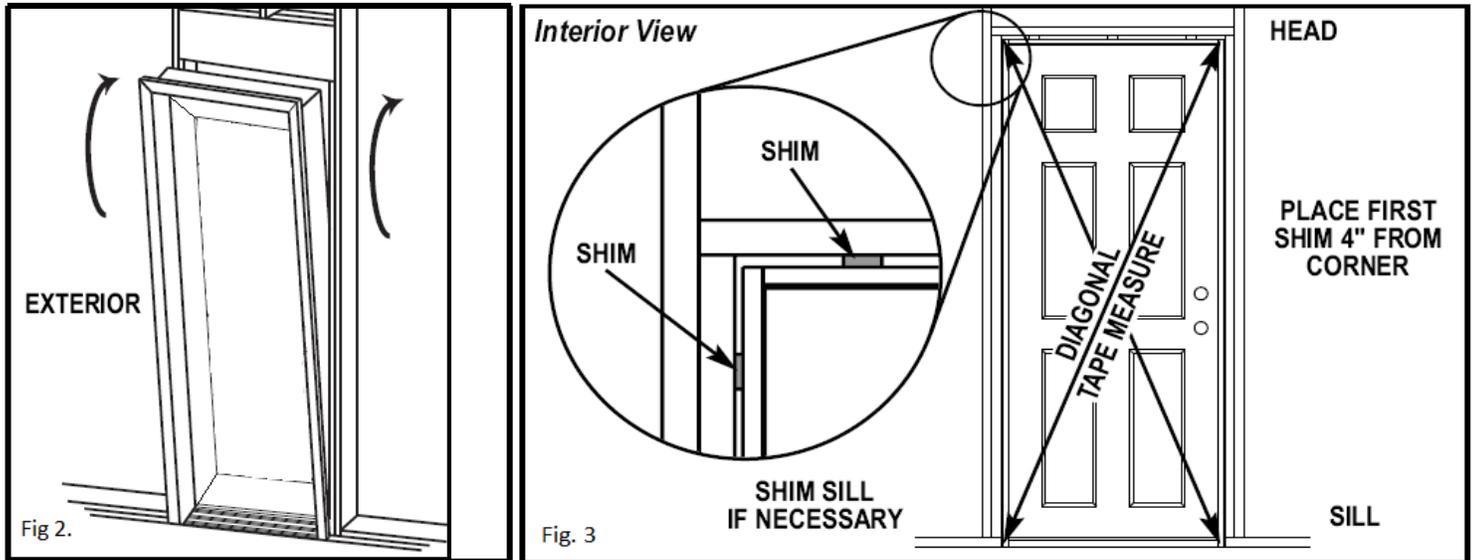
These techniques are general guidelines only, and may not be appropriate for all performance requirements. Kolbe recommends two installation types.

1. Installation clip method
 - a. Installation clips are not factory applied and are installed in the field. If using installation clips, the installation clips are installed by turning the clip catches into the frame. No additional fasteners are required to hold the clip onto the frame. If you are providing your own clip installation a #10 x 1-1/4" screw will be required to hold the clip onto the frame. Clips are to be placed 4" from the corner and 14" o.c. Clips are to be placed around the entire perimeter of the door unless the door has an aluminum thermally broken sill. No clips required at the aluminum sill.
2. Screw through frame method
 - a. From the factory when choosing drill for installation the frame head, sill and jambs will have 3/8" pilot holes drilled and located 4" from the edge and 14" o.c for a tapcon or wood screw to be used to fasten the door frame into the opening. Doors with the aluminum thermally broken sill do not require fasteners at the sill. Shims are required to be placed at the same locations as the fasteners to prevent bowing of the frame. Additional shims are required at the sill where the aluminum sill is fastened to the vinyl jamb.

STEP #5: GENERAL INSTRUCTIONS FOR BOTH INSTALLATION TECHNIQUES

See Fig 2. From the exterior, carefully tilt unit, sill first, into the rough opening. Center the unit in the frame. See Fig. 3. Shim along the head, sill, and side jambs at 4"(102mm) from the corners/ends. Also, shim at the fastener spacing. Use one shim at each screw location if screwing through the frame; use two shims per installation clip—one on each side of the clip. Aluminum sill requires additional shimming at the sill jamb where the vinyl jamb is attached to the aluminum sill.

Measure the distance from the interior upper left frame corner diagonally down to the lower right frame corner, then measure the other two corners. These measurements must be within 1/16" (2mm) of each other. See Fig. 3. In addition, the height of the frame at the center must be the same as the height at each end. The margins around the door should be even on all sides. On French doors, the margin between the primary door and the astragal should be even. Adjust the shims if necessary.

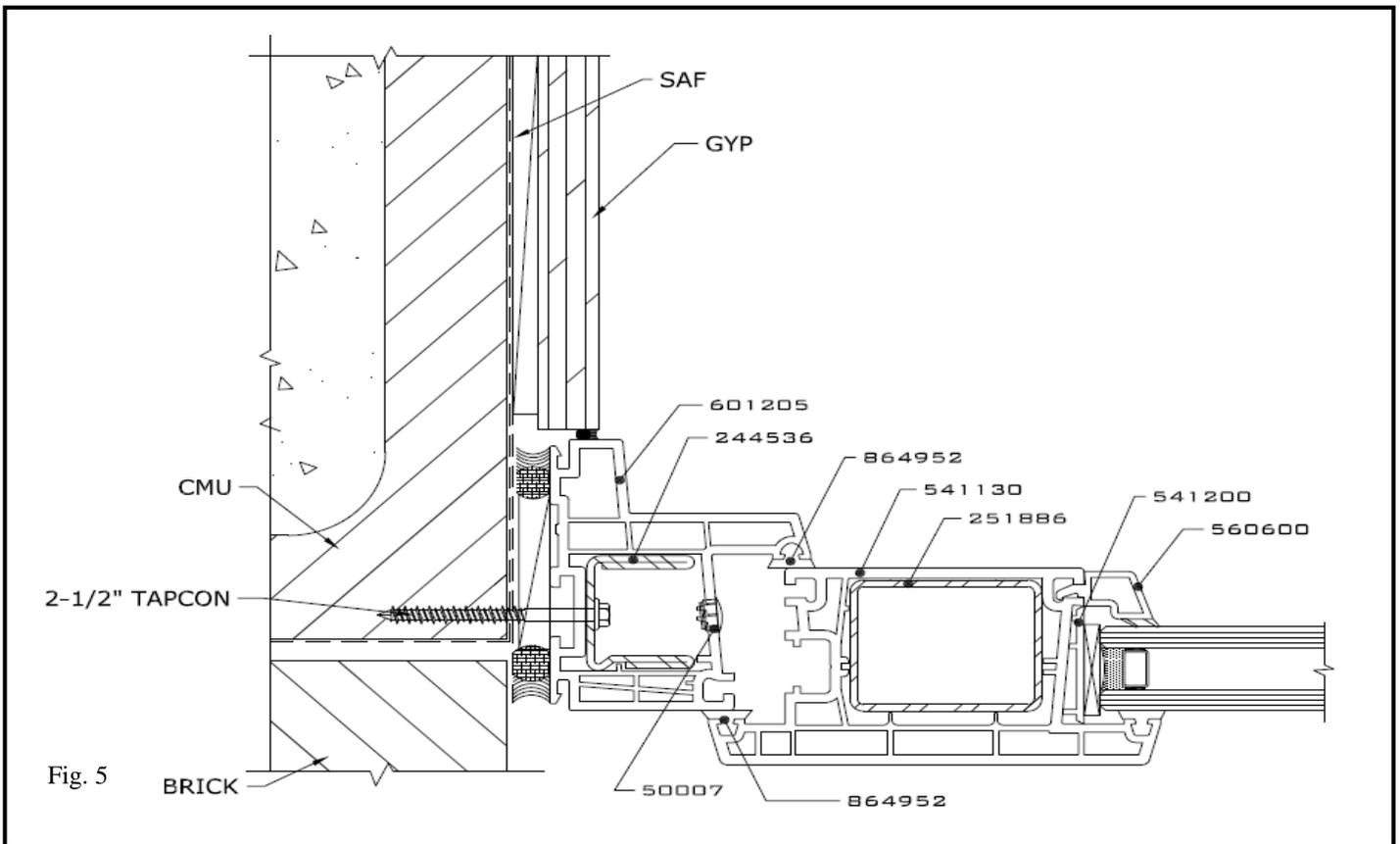


Technique #1: Kolbe Installation Clips

See Fig. 4. Double-check to ensure the sill is straight and level. Plumb the side jambs and level the head jamb. Shim on both sides of every installation clip to prevent the frame from bowing. Starting with an interior upper corner, bend clips to the rough opening frame and fasten using #10 x 2" (51mm) Phillips flat head screws or 2" tapcons. Continue around the perimeter, making sure the jambs are straight and the unit is square.

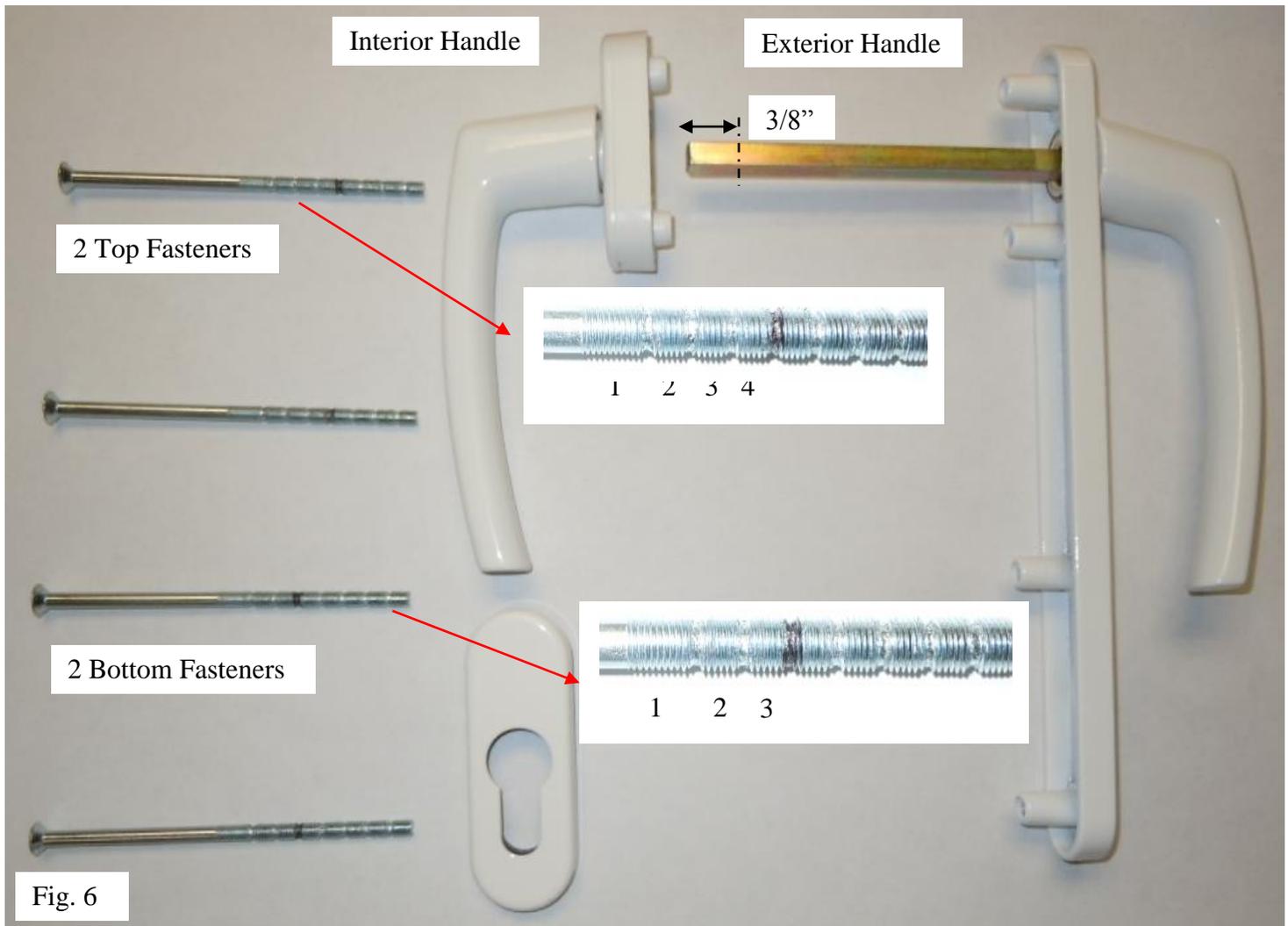
Technique #2: Screw Through The Frame

Double-check to ensure the sill is straight and level, and plumb the side jambs. Level the exterior head jamb. Adjust the shims if necessary. See Fig. 5. Following the recommended fastener spacing of 4" from the edge and 14" o.c. and also shimming underneath each fastener. Check to ensure the unit is still level. Drill a 9/64"(4mm) diameter hole at each screw location in the head jamb, both side jambs and sill unless the sill is aluminum. Using #10 x 2-1/2" (64mm) Phillips flat head screws, fasten through the jambs, shims, and into the rough opening framing. When all fasteners are installed apply silicone and insert the 3/8" plugs into each fastener location to seal out water.



STEP #6: INSTALLING THE HANDLE

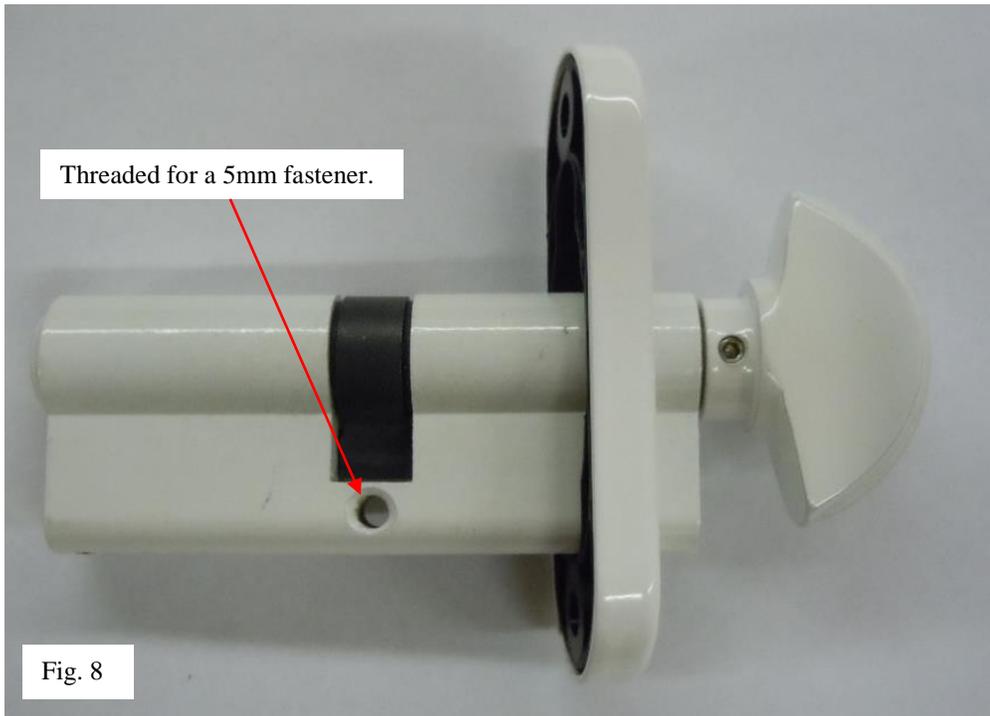
See Fig. 6 Before installing the handle set on the door you will need to cut the four fasteners and the exterior handle drive to length. Using the image below the top handle fasteners are to be cut after the fourth thread and the bottom thumb turn fastener after the third thread. The square shaft of the exterior handle will also need 3/8" cut off at the end. Use a cut off wheel or hacksaw for cutting the items to length.



See Fig. 7 Once the fasteners and handle are to the appropriate length install the thumb turn first. In the thumb turn package you will see a small circular wire with a bend to it. Take the wire and place it in the slot under the knob and pull the small spring down that is inside and turn the knob so the black tab aligns with the housing. This allows you to slide the thumb turn into the gear housing in the door panel.

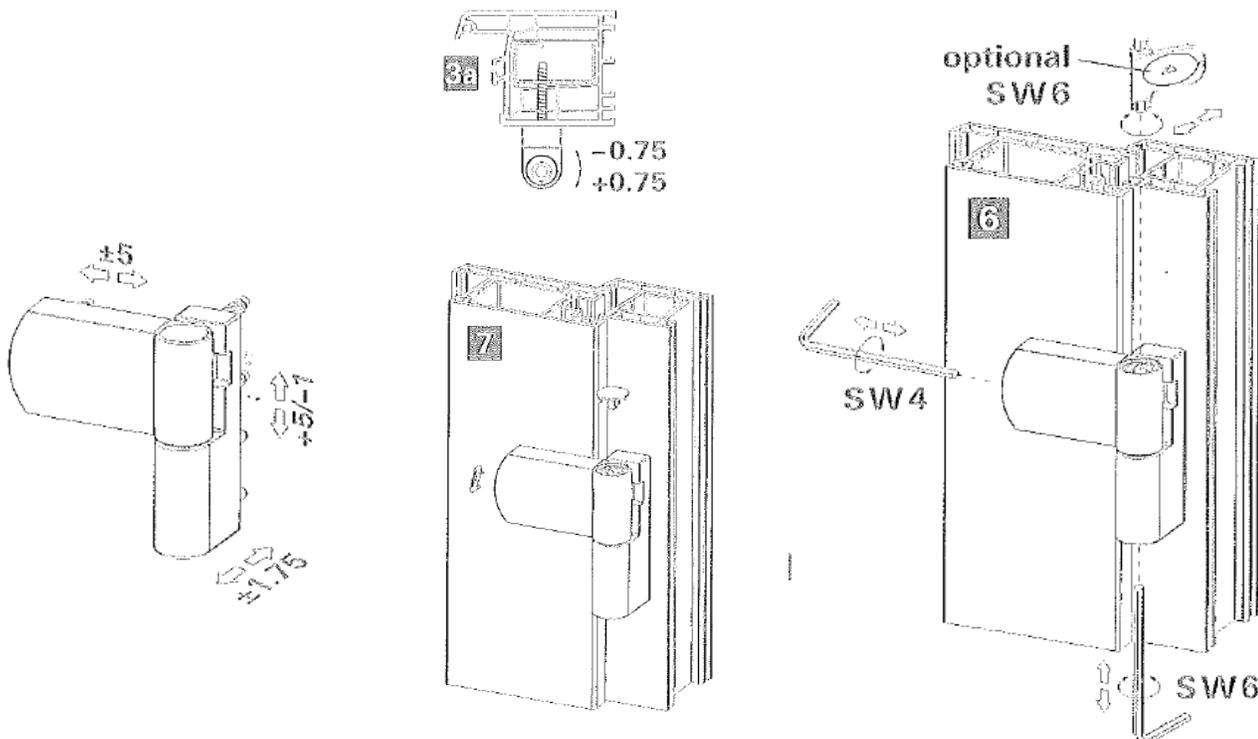


See Fig. 8 With the door open slide the metal interior cover and black housing onto the thumb turn cylinder then slide the assembly into the interior of the door panel. Use the 5mm x 50mm fastener supplied by Kolbe (935160) and fasten the thumb turn cylinder in the screw hole that is located on the edge of the door. Apply the exterior handle and interior handle. Use the fasteners that were cut down early and fasten everything together. Snap on the thumb turn cylinder cover to the housing.



STEP #7: ADJUSTING HINGES

See figures below. Once the handle set is installed operate the door to check function. If adjustments are needed use an Allen wrench to adjust the door until it locks and closes properly.



STEP #8: COMPLETE THE EXTERIOR

See Fig. 9. Install backer rod and silicone around the interior and exterior perimeter of the frame. Both components are required to seal the door to the self adhering flashing. Also a drip cap must be installed to direct water away from the door and lessen the chance of water seepage. Seal the side edges of the drip cap to the door. Seal between the drip cap and the exterior sheathing.

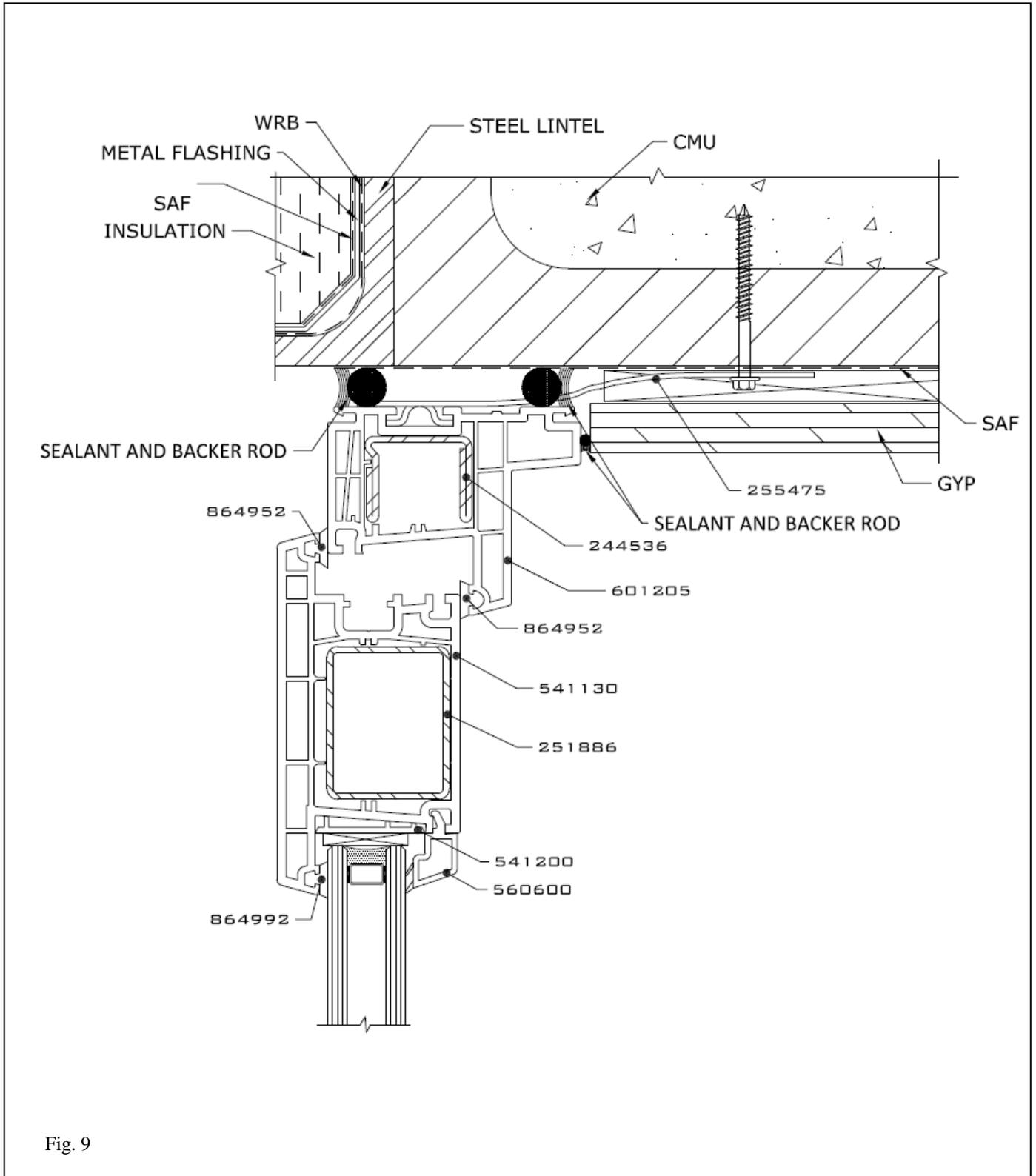


Fig. 9

STEP #9: MAINTENANCE TIPS AND PROCEDURES

Inspect your Kolbe products periodically/yearly to see if the exterior sealants and/or finishes have any gaps, cracks, or signs of damage and deterioration. Caulk any cracks immediately with a high quality sealant to maintain the seal integrity and to prevent air and water infiltration.

CLEANING

A yearly cleaning with a mild unscented soap and sweet water (tap) solution is recommended for the panel and frames; rinse well. Clean glass with standard glass cleaner, keeping it from running onto the panel and weatherstrip.

CAUTION: Do not pressure wash. Do not use any kind of abrasive. Abrasives can cause permanent damage to the PVC and finish.

HARDWARE

Check all fasteners, making sure all hardware is properly secured. All operating components can be greased or oiled once a year. Security strikers made of steel require continuous greasing in order to avoid unnecessary abrasion.

**THANK YOU
FOR PURCHASING KOLBE PRODUCTS.**