



KÖMMERLING®

Installation Guide

Receiving, Handling, Storage, and Installation

System 88 Premidore

Lift and Slide Doors

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Unit details and specifications are subject to change without notice.

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1 Before you begin

1.1 Kommerling Doors and Doors — German engineered to perform

These are high quality doors that have unique operating features. The instructions for handling, storing, and installing these units may be different from other door units you have installed. Thoroughly read and understand these instructions before you begin installation. Proper installation is necessary for Kommerling doors to perform as designed. It is presumed that the installer possesses basic woodworking skills and an understanding of wall and roof installation, sheet metal work, and joint sealant guides.

Improper installation (Failure to install and maintain this unit according to these instructions) will void any warranty, written or implied as well as compromise the units rating for water and air resistance. The installer is responsible for contacting the contractor, structural engineer, architect, consumer, or other person having authority to obtain information concerning proper installation according to local codes and/or ordinances.

1.2 Receiving and inspection

Conduct a thorough inspection of the door products immediately after receiving them. The doors should be inspected to confirm correct type, size, and for any shipping damage. All damages or freight claims must be reported within 48 hours of receipt and submitted in writing within 5 business days of receipt Kommerling USA, Inc.

Verify that you have all necessary hardware and accessory items.

Inspect the units again before installation to make sure they have not been damaged on the jobsite.

1.3 Safely unloading units from wooden racks

Kommerling units are shipped on wooden racks and secured with banding straps. In order to avoid accidents, locate the delivery vehicle on a level surface with enough surrounding free area to safely maneuver the equipment and the wooden rack(s) containing the door units being unloaded.

Take care when unloading the doors as they may have shifted during transportation. The doors are heavy. Always unload with an appropriate machine and at least two people. Leave all doors secured to the rack until they are safely unloaded.

1.4 Handling and moving doors

Kommerling door units are heavy. Always use specialized equipment and at least two people to carry them. Do not drop these units. The installer is responsible for safe handling of the doors, for selecting appropriate handling equipment, and for the safety of the installation crew. Kommerling suggests using vacuum cups whenever moving door units.

Doors are delivered in a vertical position and must remain vertical when moved and put down. **Do not** carry Kommerling doors either tilted at a sharp angle or in a horizontal position. **Do not** lay the units flat. **Do not** lift the units by the top framing member or bend the frames to go around a corner. **Do not** rack, twist, drag or pull the door frames. Installers should wear clean gloves when handling products.

Frames with no glass can be heavy. Always carry the frames by supporting the frame weight from the bottom or by grasping vertical members near the quarter points. Lift frames gently. Never lift units by the top framing member or by a horizontal framing member. When lifting frames with vertical mullions, support the joints between mullions and the horizontal framing members. If you lift the frames by the ends you will crack the frames.

Use vacuum cups to carry frames with glass as this is considered to be the safest way to carry heavy glass and door units. Kommerling doors may have the glass surfaces covered with protective plastic film and vacuum cups can be used safely with these units. When using vacuum cups on plastic film, do not

attach the cups on the joint seams. If the plastic film is loose or peeling, or if there is a condition that causes you to believe it is unsafe to use the cups on the film surface, remove the film before applying vacuum cups.

Cold weather makes the doors brittle. Avoid any impact to the frames, sash or glazing bead when handling or installing at temperatures below 40°.

1.5 Storing Kommerling doors

Please review this section carefully. You are responsible for damage to the units from the time they are delivered until they are installed and turned over to the owner.

Protect stored doors against other job site hazards and contamination such as welding splatter, grinding sparks, concrete, mortar, stucco, paint, dust and other harmful installation materials. Properly protecting the door units during storage is important to safeguard their intended function, aesthetics, and durability. Doing so can speed up or eliminate any cleanup and it can also prevent unnecessary damage.

Doors shall be stored out of the weather in a clean, dry, low-traffic area, away from direct sun light, extreme temperatures and temperature changes. Store doors inside if possible.

Do not leave wrapped doors exposed to weather, sunlight or heat. They must be well ventilated so that heat cannot be trapped under protective coverings. Heat trapped between surfaces and reflected by glass coatings can lead to permanent damage of frames, finishes, and glass.

Do not store doors in containers, trailers, or areas that might undergo dramatic fluctuations in temperature and humidity. Do not store near hazardous or chemical materials. Off-gassing of these materials may degrade the door finish or seals.

Store door units on a flat level surface in a way that will protect the integrity and perimeter of the unit. If doors must be stored so some lean against others, always stack the largest units at the back in a completely upright position and proceed forward with gradually smaller units. Never lean doors against each other without protective material between them. Always secure stacked units to prevent falling.

1.6 Kommerling doors and exterior finishes

The integral mounting flanges on Kommerling doors are **not** structural nailing flanges. They must **not** be used to anchor the door to the wall structure. Kommerling will provide anchoring straps to permanently mount the door into the door/wall assembly. Fasteners penetrating the flanges can cause operating problems and damage that is not covered by warranty. No permanent fasteners are to penetrate door flanges after the door installation. The builder or person of authority shall notify all trades of this requirement.

Exterior finish material must not restrict thermal movement of the door unit. Exterior finish material details must allow for movement between the exterior finish material and the door frames. Exterior finish material that restricts movement between the exterior finish material and the door frames can result in damage to the doors.

Kommerling strongly recommends that builder and building designer review exterior finishing details and coordinate the work of trades to ensure that fasteners used to attach exterior finishes and flashings do not penetrate Kommerling mounting flanges and to ensure that exterior finish material details allow for movement between the exterior finish material and the door frames.

1.7 Building codes

Kommerling builds quality units based on information provided by the purchaser. It is the responsibility of the owner, architect or builder to select and install units in compliance with all applicable laws, regulations and building codes.

1.8 Building interface detailing

These instructions show you how to place, shim and anchor the doors to the building. They do **not** show you how to prepare the building envelope and rough opening nor how to apply all the sealants, flashings, or barrier membranes required for a code compliant and weather-sealed installation. These requirements vary from one jurisdiction to another. It is presumed the installer has a working knowledge of the tools, equipment, and methods necessary for the installation of fenestration units. It further assumes familiarity with flashing and sealing, glazing procedures, finishes where applicable, and an understanding of the fundamentals of installation that affect the installation of these units.

Before installation the authority having jurisdiction (architect, building envelope consultant, local building department or building inspector) should be consulted about requirements for weather-tight installation, including use of flashings, sealants and barrier membranes. Kommerling recommends following ASTM E 2112-01 guidelines for sealing and flashing exterior doors.

1.9 Rough opening

The quality and installation of the material/lumber and fasteners of the rough opening must be structurally adequate for design load requirements. The structure above all door openings must be designed to limit deflection due to dead loads and live loads. The maximum allowable deflection of the structure above or below Kommerling doors is 1/16 inch at mid-span.

Check all rough openings to see if they are square and have a level sill and plumb (vertical) jambs. Make sure that the outside face of the wall is straight and plumb. If a rough opening is out-of-square, adjust the thickness of the shim blocks as necessary to make sure that you install the door in a square, level and plumb way. Maintain a uniform space around the frame where possible, even if the rough opening is not. If the outside face of a wall is bowed or leaning, install the door to be vertical.

If any conditions exist that would prevent the proper installation of the door unit or prevent application of materials and components in accordance with local codes, inform the general contractor or the party responsible for the installation. If you find the rough opening does not allow you to install the unit perfectly level, square, plumb, and straight in every direction, make sure that the general contractor corrects the rough opening before proceeding.

The rough opening size for Kommerling doors should be no larger than 1" wider and 3/4" taller than the outside dimensions of the door frame.

1.10 Compatibility of materials

Sealants, adhesives, adhesive tapes and barrier membranes used with Kommerling doors must be compatible and safe for use with rigid PVC and Kommerling painted and laminated color finishes. Installer or authority having jurisdiction is responsible to select compatible materials. The Kommerling warranty does not cover damage to Kommerling units or surrounding materials arising from the use of incompatible or unsuitable products or procedures.

If you are not sure what the finishes are on the Kommerling units you are installing, contact your Kommerling representative.

1.11 Protecting installed units

Use caution to avoid damage to doors before and after installation. Many field-applied protective coatings can damage fenestration gaskets and sealants, especially insulating glass sealants, and are not recommended. Contact Kommerling before applying any such coatings.

Do not block sliders in the open position with lumber or other materials.

Keep sills of operable doors free of dust, dirt and installation debris. Make sure gaskets are not damaged or dislodged and that drain slots are not blocked.

Protect installed doors from other installation activity such as welding spatter, grinding sparks, concrete, mortar, stucco, paint, acid solutions used to wash masonry and other harmful installation materials and practices.

Do not use metal scrapers, paint thinners, chemical solvents or abrasive cleaners to clean any part of the glass or framing on Kommerling units during or after installation.

1.12 Protective tapes and protective films.

Vinyl door frames may have protective plastic tape applied to interior and exterior surfaces to protect them during manufacturing and handling. Glass surfaces may have protective film applied to interior and exterior surfaces. Protective tape on exterior vinyl surfaces must be removed as soon as units are installed. Protective film on exterior glass surfaces must be removed within twelve months of installation.

Protective tape and masking tape should not remain on exterior vinyl surfaces for an extended period of time. They will begin to fuse to the unit surface making the adhesive residue difficult to remove. Failure to remove tape at the time the frames are installed may permanently damage the frame finish.

Do not remove the protective tape or film in the presence of flammable and explosive chemicals and gases. Removal can cause sparks that could ignite combustible liquids used nearby.

2 Tools and Materials

2.1 Tools required

- 🔧 24", 48" and 72" levels which are needed for tall doors. Substitute a cross line (360 degree, self-leveling 5 point) laser level for ultimate accuracy.
- 🔧 Transit level
- 🔧 Masons string
- 🔧 Ladders
- 🔧 Framing hammer
- 🔧 Soft rubber hammer
- 🔧 Flat pry bar
- 🔧 Hammer Drill
- 🔧 Screw gun
- 🔧 Screw drivers, flat and phillips
- 🔧 Tape measure
- 🔧 Caulking gun
- 🔧 Small adjustable crescent wrench or 11 mm open end/box wrench, 11mm socket wrench (may be needed for certain hardware adjustments)
- 🔧 Glass vacuum cups - Minimum two vacuum cups are recommended for handling large heavy doors.
- 🔧 3, 4, 5 and 8 mm Hex key or combination Hex-socket tool (required for hardware adjustments such as clearance and locking tightness adjustments).
- 🔧 Shop vac

2.2 Materials required

NOTE:

Treated wood products can be corrosive to many commonly used fasteners. All the fasteners are to be corrosion resistant and selected for compatibility with the substrate.

- 🔧 Fasteners for securing Kommerling strap anchors to wood substrates: #10-13 x 1-1/2" stainless steel pan head screws.
- 🔧 Fasteners for securing Kommerling strap anchors to steel studs: #10-13 x 3/4" self drilling pan head screws.
- 🔧 Sealants and membranes - Sealants and barrier membranes for air and water seal at perimeter joints shall be compatible with rigid PVC, with building substrates, and with one another.

- ☒ Low expanding foams
- ☒ Sill support blocks - Plastic or other non-deteriorating and non-swelling/non-compressing door support blocks, min. 1-1/4" x 1-1/2". Blocks may be purchased from Kommerling in various thicknesses.
- ☒ Shims - Synthetic, plastic, or other non-compression shims to be used at jambs.
- ☒ Caulking and backer rod - Compatible sealant for second plane of protection at interior perimeter of each door.

2.3 Materials supplied by Kommerling

- ☒ Strap anchors - Strap anchors are shipped loose with every order. The anchors are in one or more cardboard boxes and are identified on the packing slip. Make sure you have all the anchors you need before you start installing the doors.
- ☒ Drain caps - Drain caps are shipped loose with every order.
- ☒ Handles and keys - Handles and screws are in pre-packaged plastic bags. Keys supplied for doors that have key lock cylinders.
- ☒ Kommerling does not supply actual installation hardware. Due to varied installation requirements, the hardware required depends on the particular construction substrate.

3 Installing Doors

STOP AND READ BEFORE PROCEEDING!

- ☒ Measure the rough opening to ensure that it will allow installation of the door in a square, plumb, and level condition in accordance with manufacturer's instructions. If the opening will not allow correct installation, correct these deficiencies before proceeding.
- ☒ Ensure that the header above the opening has satisfactory support and that deflection will not exceed 1/16" over the entire span.
- ☒ Check that the fenestration products are the correct size and type for the opening, including tolerances for plumb, level, and square installation.
- ☒ Verify that all interfacing components (such as panning systems, drip caps or moldings, and other weather barrier systems) have been installed per local building codes and local weather exposure levels.
- ☒ Follow the handling instructions in this document and on the Kommerling sticker that appears on each frame.

3.1 Removing the sliding sash or unit glazing before installation

Depending on the size of the unit, it may be helpful to remove the sliding sash or the unit glazing to make the units easier to handle.

- 3.1.0 To remove the operable sash:
 The sash will need to be operated for removal. Door handles must be installed for slider removal and care should be taken to prevent damage during installation. The sash is heavy! **DO NOT** try to remove the sash by yourself. Kommerling recommends a crew of at least two people for this procedure.
 To remove the sash, slide it totally open. Carefully remove the upper track. Attach suction cups to the sash glazing and slide it closed. Slowly tilt it away from the frame and lift it off the bottom track, taking care not to damage the roller assembly and making sure the bottom is not damaged and that dirt and sand do not contaminate it. Rest it on pre-placed blocks and lean it slightly against a wall or other adequate support. Once the frame has been secured in the opening, reverse this procedure to replace the sash.
- 3.1.1 To remove the glazing only:
 Attach vacuum cups to the glazing. Remove the glazing bead by gently working a putty knife into the seam between the bead and sash frame. Once the bead is separated, tilt the

knife towards the frame and carefully strike the heel of the putty knife to further separate the bead until it can be pulled free.

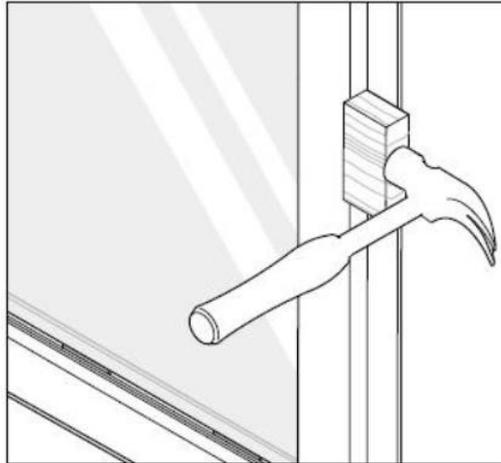
Repeat this at all four sides, then tilt the IG away from the sash frame and lift it out of the framework, making note of the glazing blocks and shim locations.

Place the IG in a safe place, on support blocks, on a clean and dry surface.

Once the frame has been secured, reverse the removal install, taking care to replace the blocks and shims at their original locations.

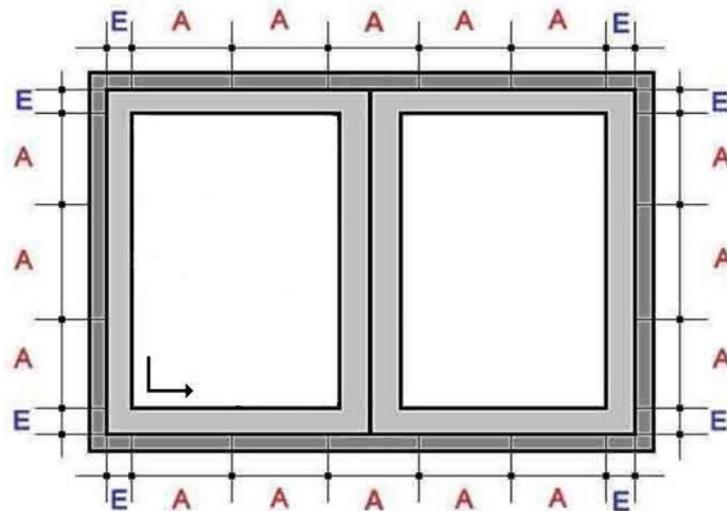
3.2 Prepare the frames for installation

- 3.2.0 Remove the wooden shipping blocks that are attached to the flange (flanged doors only). If the frame has become bowed by actions such as dragging it by the edge, straighten it by tapping it with a wooden block and a hammer.



- 3.2.1 Anchors are shipped loose with every job. Make sure you have received enough anchors to complete the job. Locate anchors on both sides of each vertical and horizontal mullion at 6" (E distance) from the mullion centerline. Locate intermediate anchors at a maximum spacing of 12" (A distance) on center in between the corner and mullion anchors unless you have shop drawings that show a different spacing.

Typical anchor spacing:



- 3.2.2 Step one. Facing the interior side to the unit, place the prongs of the anchor into the groove at the edge of the frame. **(Figure One)**
Step two. Turn the anchor clockwise 90°. **(Figure Two)** Do Not try to turn the anchor counter clockwise as damage will occur.

3.2.3 The anchors are designed to allow for anchoring the door securely for different gap widths. Adjusting the anchor to suit the gap is a two-step process: first you pre-bend the anchor towards the door, and then back against the side of the rough opening. The objective is to have the anchor lie flat against the side of the rough opening before it is screwed in place. For narrower gaps, pre-bend the anchor less. For wider gaps, pre-bend the anchor more. Start by pre-bending the anchor about 30 degrees from the face of the rough opening, then bend it back. If it does not lie flat, pre-bend it again, more than before. Continue until there is a consistent feel for how much you need to pre-bend the anchors for different sizes of gaps. Take a few minutes to practice how much or how little you need to bend the anchor towards the door in order to have it lie flat against the rough opening when you bend it back.

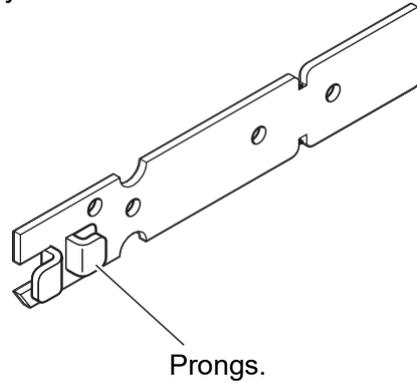


Figure One

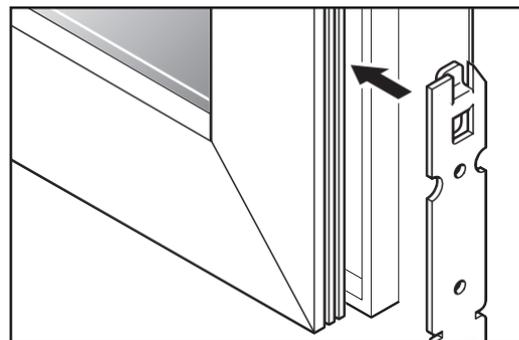
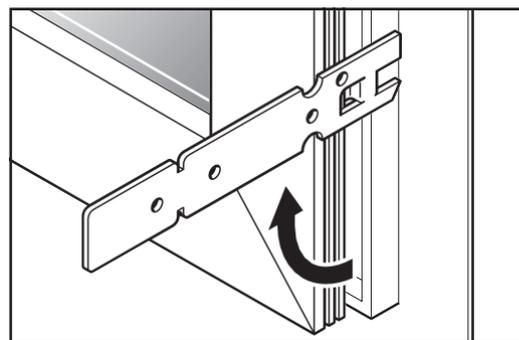


Figure Two



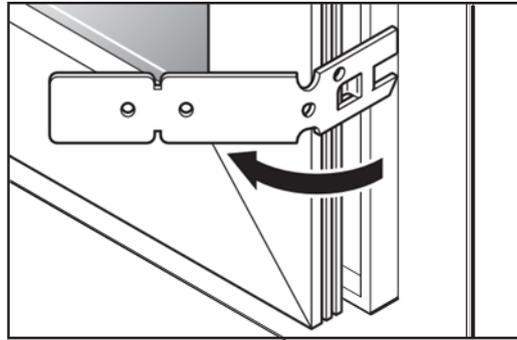
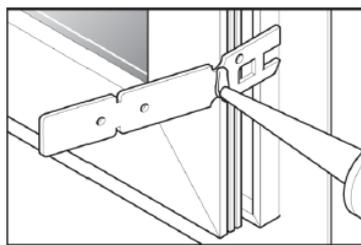


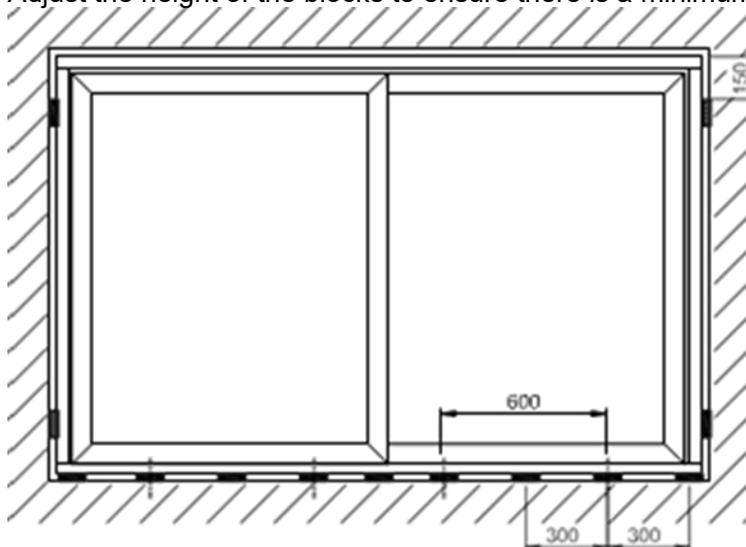
Figure Three

- 3.2.4 Apply sealant generously on the side of the anchor that will lie flat against the rough opening facing you (see drawing), near to the edge where it bends. Apply the sealant across the entire width of the anchor to maintain the continuity of the air barrier when the installation is finished. To ensure compatibility, use the same sealant that will be used for the entire installation.

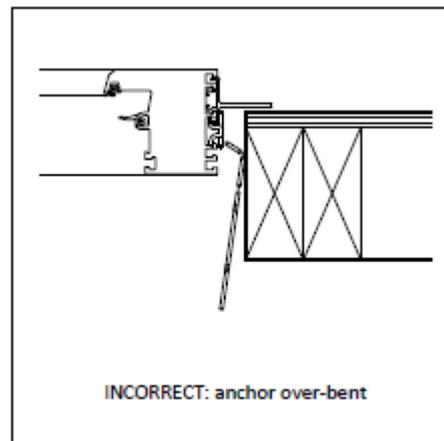
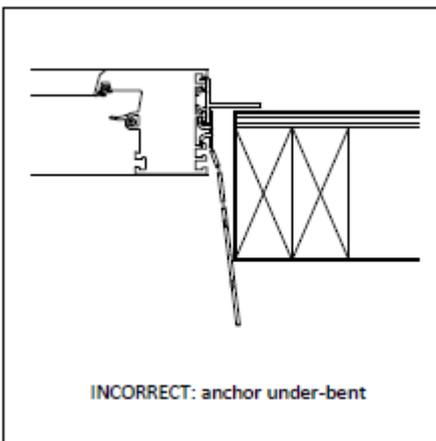
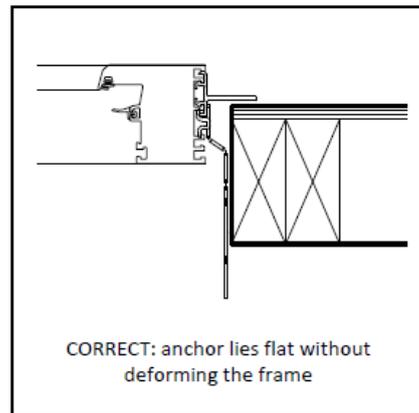
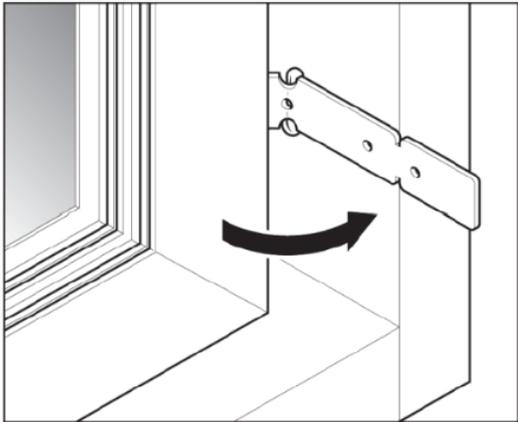


4. Installing the frames into the rough opening

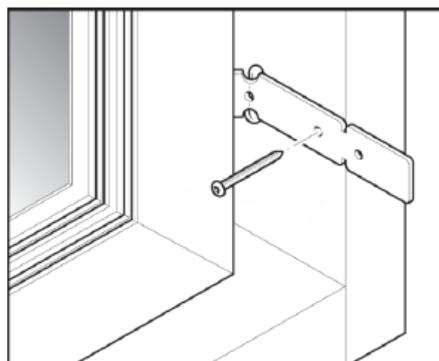
- 4.1 Before placing the unit into the opening, confirm that continuity will be maintained between the door unit and the water-resistive-barrier that provides weather protection, air leakage control, and resistance to heat flow and vapor diffusion.
- 4.2 Whether sub floor or slab on grade construction, the area where the door will be installed on must be level. Kommerling recommends the setting shims placed in the rough opening below the sill be composite or stackable plastic non-compression blocks (no wedges) of different thicknesses to achieve the correct placement of the door in the rough opening. The blocks should be of sufficient size to provide an adequate bearing surface. Locate the blocks under each vertical member of the unit and then at 12" on center. Adjust the thickness of blocks to ensure sill frame is level, straight, and plumb. Do not bend frames by forcing blocks into place. Adjust the height of the blocks to ensure there is a minimum 1/2" gap at the head.

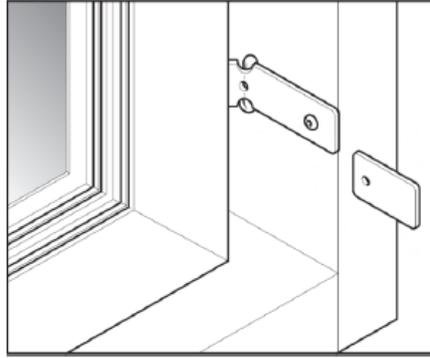


- 4.3 Center the unit at the rough opening with equal spacing on each side and tilt into place being careful not to compromise the WRB. Before fastening anchors to the rough opening make sure the frame is plumb even if the wall isn't.
- 4.4 To prevent problems with wall finishing or door operation, all anchors must lie flat against the sides of the opening before they are fastened to the wall. If the bend doesn't allow the anchors to lie flat against the opening, the frame will twist when screwed into place.



- 4.5 Lateral shims will be placed into the rough opening gap at each anchor location. Do not deform the unit frame by force. Do not fasten the anchors in sequence. Start by loosely fastening the anchors at the corners. Then fasten the anchors at the midpoints of the frame and at the mullions, installing the lateral shims at each anchor location. (there should be shims on either side of the anchors). Do not twist or deform the frame with the midpoint anchors. Finally, fasten the intermediate anchors. Alternate fastening from side to side and from top to bottom to lessen the chance of deforming or shifting the frame out of position. Use the hole nearest to the door frame to fasten the anchor to the rough opening. Remove the anchor tabs by bending or cutting the tabs where they extend past the inside face of the studs. Be careful to not damage the door or glazing.





5 Establishing Continuity between the door unit and the other Components of the Building Envelope

The door installation system should integrate into the building envelope and provide a continuous air and water seal on all four sides of each door. To ensure success it is essential to have a thorough understanding of the building system employed to prevent water and vapor penetration through the envelope. In the absence of this information, Kommerling recommends following **ASTM E 2112-01** guidelines for sealing and flashing exterior doors. These guidelines provide instruction to achieve the best possible protection against unwanted air and water leakage.

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