

Step 6: Install Dead Bolt and Strike Plates



Figure 26: Screws fasten the latch plate to the door slab.

Install the dead bolt strike plate at the correct location, per the manufacturer installation detail (Figure 26).

Step 7: Insulate



Score shims with a utility knife and snap the shims along the score. Trim any excess with the utility knife. Insulate around the top and sides of the door unit in the cavity between the jamb and the wall studs with fiberglass blanket insulation (Figure 27). Install the interior and/or exterior trim around the door.

Figure 27: Insulate between the jambs and the wall studs all around the door.

Critical Point: The use of expandable type foam is not recommended as it may cause the door jambs to warp; this may leave the door inoperable or push the brickmould away from the jamb.

Step 11: How to Stain Woodgrain Textured Fiberglass Doors

- Staining:
- Put on gloves and prepare your materials.
 - Stir stain thoroughly using smooth strokes, avoid creating bubbles and do not shake the stain container.
 - Working in the specified order and individual section, dip the foam brush into the stain then use the rim of the container to release any excess. Use the foam brush to apply the stain onto the section. Using a cloth, rub the stain into the embossed woodgrain ensuring complete and even coverage. Stop between sections to tidy up the perimeter with a rag and mineral spirits. Clean edges will help define the individual components of the finish.
If preferred, the subtle color variation found in wood can be replicated by selective removal of the stain. Using a rag or cheese cloth, gently rub the surface removing very small amounts of stain. Apply varying levels of pressure and work in the direction of the grain. Excessive pressure will remove too much stain.
 - Once the door has been completely stained, check for any drips. While the stain is still wet, lightly brush the entire surface of the door with a china bristle brush. Use long strokes and work in the direction of the grain to even out color and achieve consistency.
 - Let the first stained surface dry, per the stain manufacturer's recommended drying time, before proceeding to the second side.
 - If you prefer a darker appearance, repeat staining steps one through five only after first coat is completely dry. Do not sand between staining coats.

D. Sealing or applying the top-coat

The top-coat or sealant for your door is very important and required for weatherability. It protects the stained door from the elements and makes the door surface washable. Be sure that the stain coating is completely dry and then apply a high-quality, UV stabilized, clear exterior polyurethane coating (satin or low gloss) – used for any normal exterior wood application.

Note: We recommend that all 6 sides (front and back faces plus all four edges) be sealed to eliminate moisture absorption. The bottom of your door panel(s) may contain a factory installed weather-stripping (sweep) which is sealed prior to installation. Failure to observe this recommendation may void the warranty.

Step 8: Caulk Doorway

- Caulk** all four exterior corners and all around the brick or siding in the following sequence:
- caulk the sill on both latch and hinge sides from the edge of the sill crown along the edge where the sill and jamb or brickmould meet (Figure 28)
 - caulk the front sill edge where the sill and the sub-floor meet (Figure 29)



Figures 28 and 29: Caulk the sill crown and the front of the sill.

- caulk the top corners where the header and jambs meet, starting at the weather-stripping and working to the face of the brickmould (Figure 30)
- caulk the perimeter where the exterior trim meets the brick or siding trim (Figure 31)

If the door is center-hinged or has a sidelite, caulk around the mullions where the mullions contact the sill and header.



Figures 30 and 31: Caulk the jambs and the exterior trim.

Step 9A: Adjust Sill



Some door units are supplied with adjustable sills, and these may be raised or lowered to form a tight seal with the fixed sweep on the bottom of the door. This adjustment requires a screwdriver with appropriate screw bit. To increase the height of the sill, turn screws evenly along the sill cap. Refer to the "Steps to test threshold seal". (Figure 32-A).

Figure 32: Raise or lower the sill by adjusting the sill screws. Some sills may have covers over the adjusting screws. These covers must be removed prior to making any adjustments.

Step 9B: Adjust Sweep



Figure 33: U-channel sweeps are adjusted to form a tight seal with the sill.

Some door units are supplied with a U-channel adjustable sweep and these may be raised or lowered to form a tight seal with the fixed sill. To adjust the sweep, loosen the screws that hold the sweep in place and lower the sweep far enough to create an airtight seal with the sill. Once the sweep is positioned properly, tighten the screws by hand, taking care not to over-tighten (Figure 33).

Step 11: How to Paint Exterior Doors

Factory finished door units do not require any additional field finishing. Requirements:
Find a well-lit finishing location that is dust-free, well ventilated and within the climate conditions recommended by the coating manufacturer. Recommended temperature should be between 50° – 90°F degrees fahrenheit.

- You will need the following:**
- Coatings and accessories:**
- Mineral spirits or acetone
 - Soapy water (mild detergent in warm water)
 - One pair of rubber gloves
 - Stir sticks
 - Masking tape
 - Safety razor blades
 - 220-grit sandpaper
 - Paint
 - High-quality, oil-base or 100% acrylic water-based latex paint of desired color
 - Lacquer paints are **not** recommended
 - 2-1/2" wide brush appropriate for type of paint (A natural bristle brush should be used with oil-based paint and a synthetic bristle brush should be used with latex paint.)

- Tools:**
- Hammer
 - Center punch
 - Phillips screwdriver
 - Pliers
 - Safety glasses
 - Air-less sprayer (optional)

Note: Painting instructions specifically refer to the door and sidelite panels. Oil-based paint should not be used on wood frame components (jambs & brickmould).

Please read and understand the entire painting procedures before attempting to finish the door. Be sure to follow the paint manufacturer's detailed application instructions on the product label.

A. How to start

Doors can be painted either hanging in the opening or removed from the frame (recommended). Should you remove the door, take care to protect it from damage. Sidelites will need to be finished vertically. To remove the door from the frame, use a center punch and hammer. Strike the hinge pin from the bottom until it pops up (for outswing & self closing units – hinge leaf must be removed from the door). Drive the hinge pin as far as possible with the punch. Using a pair of pliers, grasp the hinge pin and, while twisting, pull the pin out. Remove all door hardware.

B. Preparing the door surface
IMPORTANT: For adequate paint adhesion the door surface must be free of dust, debris and other surface contaminants.

Steps to test threshold seal (Figure 32-A)

- Close door on a piece of paper placed over the threshold.
- Pull paper between the sweep of the door and the threshold.
- If the threshold is properly adjusted, you should feel some tension, but if the paper tears, the door's seal is too tight. If there is no tension on the paper, the door's seal is too loose.

To properly adjust the threshold seal if it is too tight.

- Adjust sill cap by turning screws counter-clockwise evenly a 1/2 turn.

- Repeat seal test. If paper does not slide beneath door with a feeling of tension, repeat Step 1. Re-test seal.

- Continue testing threshold until it is properly adjusted.

To properly adjust the threshold seal if it is too loose.

(WARNING: Do not increase height by more than 1/4")

- Adjust sill cap by turning screws clockwise evenly a 1/2 turn.

- Repeat seal test. If paper does not slide beneath door with a feeling of tension, repeat Step 1. Re-test seal.

- Continue testing threshold until it is properly adjusted.

Step 10: Install the Latch and Dead Bolt

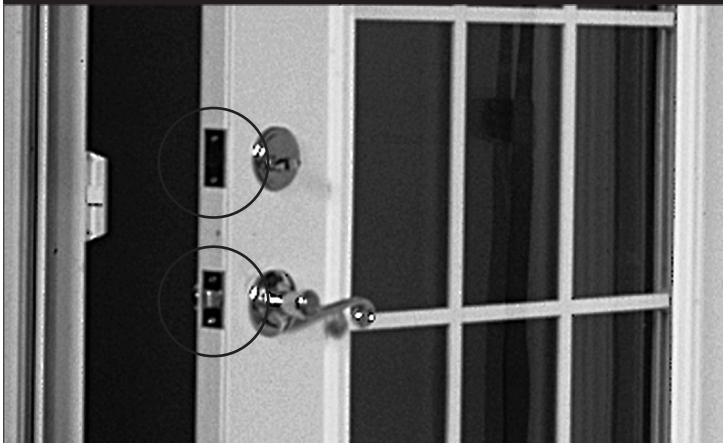


Figure 34: The latch and dead bolt are installed per the hardware manufacturer installation detail.

Note: Units intended for installation in high velocity windstorm region requires specific grade of latching hardware.

Step 11: How to Paint Exterior Doors

Steel doors should be wiped clean with a solvent such as acetone or mineral spirits. Allow the cleaning solvent to dry completely – until there is no residual odor. Once wiped clean, the door must be lightly sanded with a 220-grit sandpaper. After sanding, the door must be washed with a mild detergent in warm soapy water, rinsed and then dried. Fiberglass doors should be wiped clean with a solvent such as acetone or mineral spirits. Allow the cleaning solvent to dry completely – until there is no residual odor. Next, the door must be washed with a mild detergent in warm soapy water, rinsed and then dried.

Mask (tape) off all surfaces that will not be painted including all glass.

C. Painting the Door

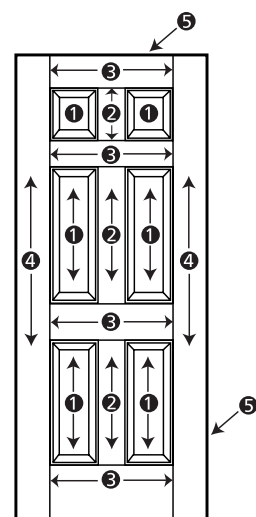
Use exterior, high quality, oil-based or 100% acrylic water-based latex paint of desired color. High quality interior paint can be used on the interior surface of the door only. Lacquer paints are **not** recommended. Follow the manufacturer's instructions for paint application by using either a brush or a handheld sprayer.

Painting:

Put on gloves, safety glasses, and prepare your materials. Before starting, and occasionally throughout the project, stir the paint using smooth strokes until the texture is creamy – avoid creating bubbles.

Finishing with Brush Application:

Dip the brush into the paint, then use the rim of the container to release any excess paint. Apply paint as evenly as possible while still wet. Brush strokes should follow the grain direction of the selected area. Start working on the panels and sticking (moulding profiles), then the vertical center mullion, next the horizontal rails, then the vertical stiles, and finally, the outside edges (stiles and top rail, see figure 1 for details). Doors that are outswing or have adjustable surface mounted sweeps will need to have the sweep removed and the bottom rail painted.



Finishing Order:
For woodgrain textured door finishing with brush.

- 1# Panels and sticking (moulding profiles)
- 2# Vertical center areas (mullions)
- 3# Horizontal areas (rails)
- 4# Outside vertical areas (stiles)
- 5# Edges of door (includes both sides and top of door)

Step 11: How to Stain Woodgrain Textured Fiberglass Doors

Factory finished door units do not require additional field finishing. See maintenance steps for proper care.

Requirements:

Find a well-lit staining location that is dust-free, well ventilated and within the climate conditions recommended by the stain/top-coat manufacturer.

You will need the following:

- Coatings and accessories:**
- Mineral spirits or acetone
 - One pair of rubber gloves
 - Lint-free rags or cheese cloth (recommended)
 - Stir sticks
 - 2" wide foam brush
 - Masking tape
 - Safety razor blades
 - Stain
 - High-quality, opaque (non-transparent), heavily pigmented, oil-based stain (recommended)
 - Gel stains can also be used
 - Semi-transparent stains are not recommended
 - High-quality, exterior grade, UV stabilized polyurethane sealant (satin or low gloss)
 - 2-1/2" wide china bristle brush

Tools:

- Hammer
- Center punch
- Screwdriver with arrangement of screw bits
- Pliers
- Safety glasses

Please read and understand the entire staining procedure before attempting to finish the door. Be sure to follow the (stain and top-coat) manufacturers detailed application instructions on the product label.

Step 11: How to Paint Exterior Doors

Finishing with Spray Applicator:
Follow the manufacturer's instructions for thinning the paint; (i.e. thin latex paint with water or oil-based with solvent for better atomization and spraying results). Strain paint before filling the spray pot.

The door can be painted in horizontal (recommended) or vertical position; however, the paint should be applied in continuous strokes extending six inches past the edges of the door. This will ensure uniformity across the entire surface of the door. Multiple light coats are better than one heavy coat.

Avoid runs as a result of over-spraying.

Note: We recommend that all 6 sides (front and back faces plus all four edges) be sealed to eliminate moisture absorption. The bottom of your door panel(s) may contain a factory installed weather-stripping (sweep) which is sealed prior to installation. Failure to observe this recommendation may void the warranty.

Drying:

IMPORTANT: Let the paint dry completely, following the manufacturer's recommended drying time before handling the painted surface or applying a second coat. If possible, allow the door to dry in a horizontal position to minimize paint runs. High humidity and/or low temperatures may extend your drying time.

Warning: Foam-filled doors painted with dark colors or with attached storm doors, may become very hot to the touch in direct sunlight.

Do not paint the weather strip and do not close door until paint is dry (see paint manufacturer's specifications on minimum drying time).

To maintain product warranty: Paint the door, frame, header and brickmould within 45 days of installation.

Maintenance:

- In the event that the door is scratched after finishing, the damaged area can be lightly sanded using 400-grit sandpaper (do not over-sand the surface). Follow the finishing procedures on the inside of this brochure.
- Dirt and watermarks can build up on the surface of your finished door over time. Extend the life of the paint by cleaning the door a few times a year. Clean with warm soapy water, rinse and towel dry.
- Repainting every 1 to 7 years will be required, depending upon weather exposure.

A. How to start

Doors can be stained either hanging in the opening or removed from the frame (recommended). Should you remove the door, take care to protect it from damage. Sidelites will need to be finished vertically. To remove the door from the frame, use a center punch and hammer. Strike the hinge pin from the bottom until it pops up (for outswing units – hinge leaf must be removed from the door). Drive the hinge pin as far as possible with the punch. Using a pair of pliers, grasp the hinge pin and, while twisting, pull the pin out. Remove all door hardware.

B. Preparing the door surface

IMPORTANT: Dust, debris and other surface contaminants can accumulate on the surface of the door. Therefore, to achieve best results and maximum coating adhesion, wipe/clean all surfaces of the door panel(s) and sidelite(s) thoroughly with acetone or mineral spirits. Mask (tape) off all surfaces that will not be stained.

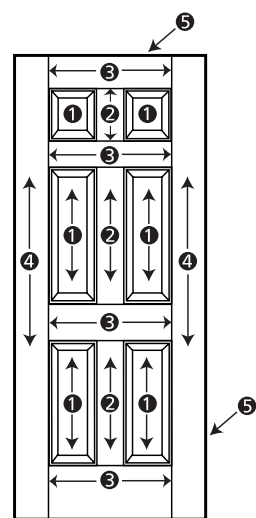
C. Staining the Door

Use a high quality, heavily pigmented, oil-based stain (recommended). Gel stains can also be used. Before starting, and occasionally throughout the project, stir the stain until the texture is creamy. We recommend that before starting, you try staining a small inconspicuous area of the door to achieve the desired color.

One coat of stain is required with the recommended (per manufacturer's instructions) dry time needed between sides. The stain should be applied in the following order working on one small section of the door at a time.

Finishing Order:

- 1# Panels and sticking (moulding profiles)
- 2# Vertical center areas (mullions)
- 3# Horizontal areas (rails)
- 4# Outside vertical areas (stiles)
- 5# Edge of door (includes both sides and top of door)



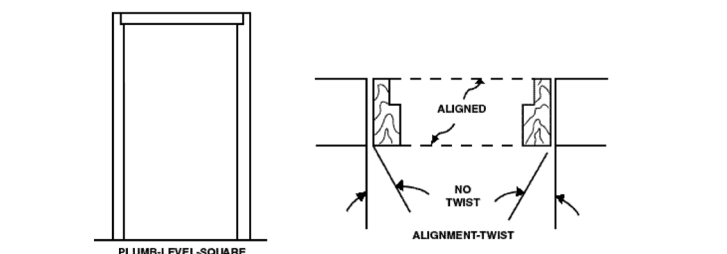
Step 12: Corner Seal (Foam Pad) Installation

Proper installation of the corner seals (Foam Pads) is critical to the performance of your new door system. Please use these photos along with Step #12 to make sure the corner seals are properly installed.



- At the ends of the sill, apply a bead of caulk where the cap and jamb/mullion meet.
- Apply the corner pad with the thick side towards the weather-strip and the thin side even with the edge of the jamb/mullion. Be sure the pad is seated in the caulk.

Trouble Shooting



If it becomes apparent that there is some trouble with the operation of the unit, the first thing to check is the installation of the unit into the rough opening. Check to insure that 1/8" gap across the top edge of door panel and frame holds true for the entire width of the door opening AND that weather-stripping is evenly compressed the entire height of the door opening. Secondly, check that the two jambs are correctly aligned with each other and that incorrect nailing on shims have not twisted the jambs.

Check all Critical Points to confirm that unit was installed correctly in proper rough opening.

Warranty

Warranties are available for most products. Please check with your dealer or distributor for current warranty terms and conditions.