



390 Vinyl Patio Door

New Construction Installation Guide

Installation Recommendations for Fin Frame Doors

These installation recommendations are made available by MI Windows and Doors, LLC (MI) to assist with the integration of mounting fin sliding glass doors into a typical wood-framed structure less than three stories in height. Installation into other structures and frame types are not addressed here.

Please contact MI or visit www.miwindows.com for additional information.

Important Design Considerations

Read this entire document before proceeding with installation of MI's products. Responsibility for product selection and installation rests with the owner, architect, and installer. Do not proceed with installation unless all factors necessary to properly integrate MI's products into a building's water management system have been addressed.

MI makes no representation or warranty that these recommendations include all information necessary to ensure proper integration into every building. State and local code requirements may impose different or additional demands, which will supersede these recommendations. For additional guidance regarding installation of door products refer to applicable industry standards (e.g., AAMA 2400, AAMA InstallationMasters™, ASTM E 2112).

Failure to follow these recommendations, local requirements, or good building practices may affect the availability of remedies under MI's warranty. Provide a copy of these recommendations and the applicable MI warranty to the owner before installing. MI does not permit adoption of its installation recommendations into the contracts of others without its prior, written consent.

Important Pre-Installation Considerations

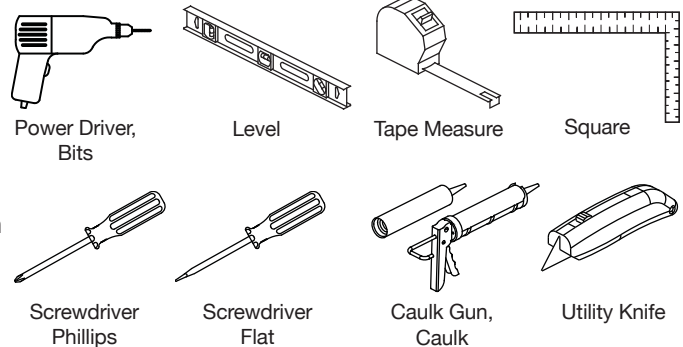
- Door installation may disturb finish surfaces and paint in existing structures. Specific notice and work site precautions may be required. Additional information is available at www.epa.gov/lead. Comply with all applicable federal, state, and local requirements.
- Job site and worker protections are recommended and may be required. Follow all manufacturers' instructions for appropriate and safe use of protective equipment, tools, materials, hardware and site protections necessary for installation.
- Special disposal considerations may be necessary for materials used during installation. Materials removed from an existing structure may also have their own disposal or recycling requirements. Comply with all applicable federal, state, and local requirements.
- Product specification sheets include important information regarding your product and may include additional installation recommendations, such as fastener use with impact resistant doors, finishing instructions, and appropriate use of low expansive foam insulation.

Contact MI for product specifications and additional product information for your MI product.

Materials Required

- Non-compressible shims.
- Flexible membrane sill pan flashing system.
- Fasteners. Type and number as required by code. At a minimum, fastener type should be sufficient to properly affix the frame and penetrate opening.
- High quality compatible exterior grade sealant.
- Seal tape for the weather resistive barrier*.
- Self-adhering flashing, in a width required by code but no less than 4". AAMA 711 compliant flexible butyl tape flashing or equivalent is recommended.*
- Backer rod.*
- Low-expansive, low-pressure foam or batt type insulation.*

Tools Required



* Use and placement of these materials may be required by code, plan, or good building practices.

STANDARD PARTS

2-panel door

1. Door frame with fixed panel installed
2. Operable door panel
3. Handle Set
4. Patio Door Screen

3-panel door

1. Door frame with Astragal
2. One operable door panel
3. 2 IG units
4. Glazing Bead
5. Box with Glazing Tape, Setting Blocks, Handle Set, & Instructions
6. Bumper, Rivnut, & Screw
7. Patio Screen Door

4-panel door

1. Door frame
2. Two operable door panels
3. 2 IG Units
4. 1-Handle Set (operable)
5. 1-Handle Set (non-operable)
6. 4-Panel Adapter
7. 4-Panel screws
8. Glazing Bead
9. Box with Glazing Tape, Setting Blocks, Handle Set, & Instructions
10. 2-Patio Door Screens

2-Panel 390 Vinyl Patio Door

Nominal Size	Exact Dimensions	Rough Opening
5068	59-1/2" x 79-1/2"	60" x 80"
6068	71-1/2" x 79-1/2"	72" x 80"
8068	95-1/2" x 79-1/2"	96" x 80"
10068	119-1/2" x 79-1/2"	120" x 80"
5080	59-1/2" x 95-1/2"	60" x 96"
6080	71-1/2" x 95-1/2"	72" x 96"
8080	95-1/2" x 95-1/2"	96" x 96"
10080	119-1/2" x 95-1/2"	120" x 96"

3-Panel 390 Vinyl Patio Door

Nominal Size	Exact Dimensions	Rough Opening
7668	88-1/4" x 79-1/2"	88-3/4" x 80"
9068	106-1/4" x 79-1/2"	106-3/4" x 80"
12068	142-1/4" x 79-1/2"	142-3/4" x 80"
9080	106-1/4" x 95-1/2"	106-3/4" x 80"
10080	118-1/4" x 95-1/2"	118-3/4" x 80"
12080	142-1/4" x 95-1/2"	142-3/4" x 80"

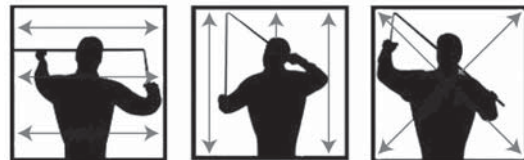
4-Panel 390 Vinyl Patio Door

Nominal Size	Exact Dimensions	Rough Opening
10068	117-1/2" x 79-1/2"	118" x 80"
12068	141-1/2" x 79-1/2"	142" x 80"
16068	189-1/2" x 79-1/2"	190" x 80"
10080	117-1/2" x 95-1/2"	118" x 80"
12080	141-1/2" x 95-1/2"	142" x 80"
16080	189-1/2" x 95-1/2"	190" x 80"

Prepare the Opening

Make sure the rough opening is plumb, square and the sill plate is level. Rough openings should be 1/2" larger than door frame in width and height.

NOTE: If the mounting fin below the sill is not needed for your installation it can be removed. Score the fin with a razor knife and snap the fin off of the frame.



Dry Fit

Dry fit the door and mark around the frame where sealant will be applied.

Remove the door from the opening. Apply a continuous 3/8" bead of premium grade, compatible exterior sealant to the marked areas behind the mounting fin in line with the pre-punched holes on all sides. (Figure 3.1)

Apply 2 continuous beads of sealant on the bottom of the rough opening prior to setting the door into the rough opening.

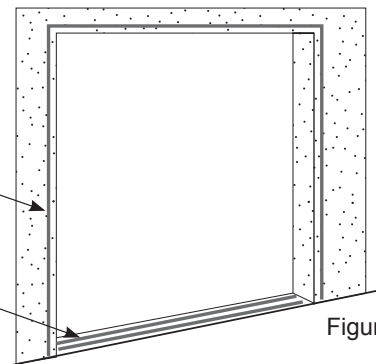


Figure 3.1

Frame Installation

Place the door into the rough opening. Make sure the door is plumb and square and the sill is seated into sealant. Use shims when needed.

Place a temporary fastener into the pre-punched mounting fin. One fastener in the top corner and a second in the opposite bottom corner. (Figure 3.2)

Check if level and square by measuring diagonally. Place additional fasteners in the opposite top and bottom corners.

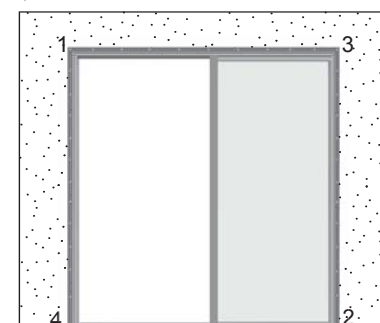


Figure 3.2

Mounting Fin Installation

Secure door with fasteners applied into every other slot on mounting fin. Fasteners should penetrate framing by a minimum of 1". Care should be taken to install fasteners straight, not angled. Do not distort mounting fin with fasteners. Prior to fastening mounting fin along the head of door, be sure it is straight and level. (Figure 3.3)



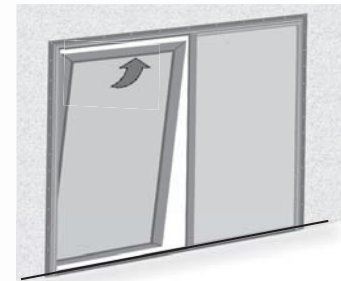
Figure 3.3

Finless & Flange Installation

Pre-drill holes into the head interior track with a 1/8" drill bit (center and measure 9" to 12" on center for additional screw locations) fasten the head to the rough opening with 3" screws. Measure 4" - 5" up from sill and 4" - 5" down from the head, then measure 9" - 12" on center for additional screw locations.

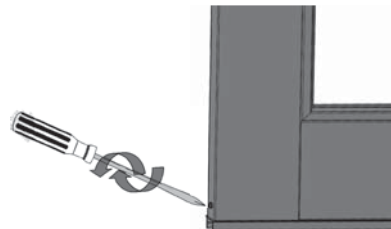
Install the Operating Panel

Guide the head of the operating panel into frame first and slide onto the sill. Slide operating panel to closed position and check the reveal. The rollers can be adjusted if the reveal is not straight.



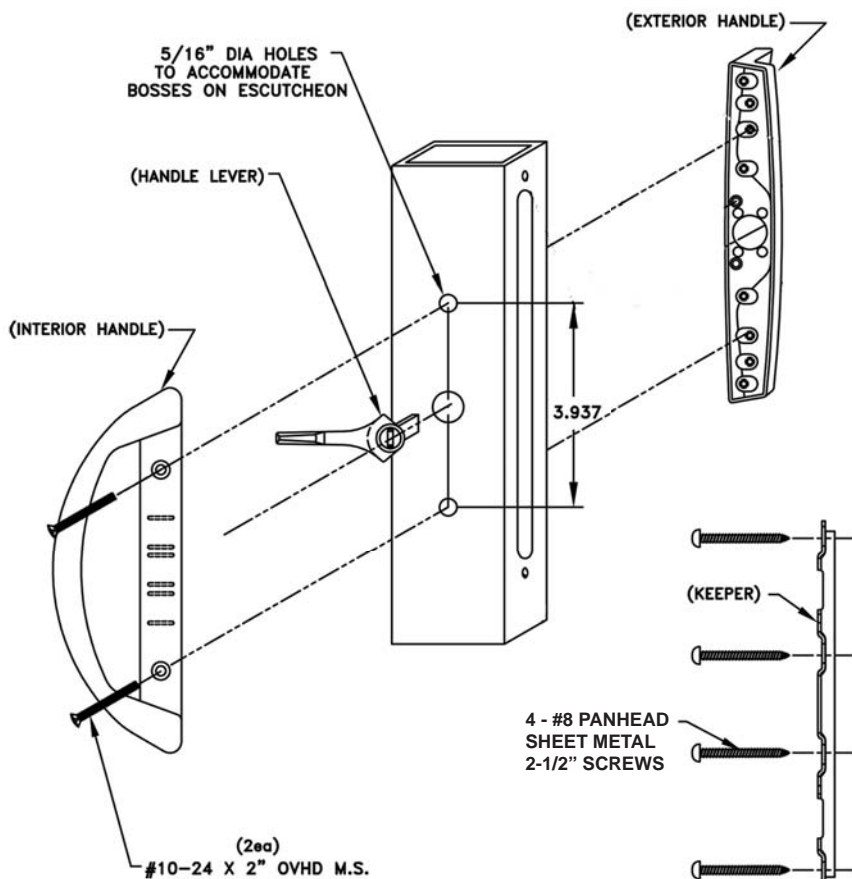
Adjust Rollers

There are 2 roller adjustment screws on either side of the operable panel. Adjust rollers using the two roller adjustment screws located at each end of the door panel. Turn adjustment screw counter clockwise to lower roller or clockwise to raise roller.



Assemble and mount the door handle

Hardware Mounting Instructions



1. Insert the thumb lever into the hub of mortise lock from the interior side.
2. Place the interior and exterior handles on the door. Make sure the cylinder tail slides into the hub of the mortise lock from the exterior side if the optional lock is used. Secure in place with 2 - #10 ovalhead machine screws provided.

CAUTION - Hand tighten only, use of a screw gun may cause damage to the handle.

NOTE: The keeper is installed onto the jamb with 2 temporary screws.

3. After the door rollers are adjusted, install one keeper screw and adjust the keeper for proper latch engagement. Then install the remaining keeper screws.
4. After the door and keeper are aligned, the "IN" and "OUT" hook adjustment can be made by turning the screws on the face of the mortise lock.



Install flashing using a recommended method

If flashing (window/door tape) is being used - After door is installed, apply the side flashing on top of the mounting fin and extend up past the top mounting fin approximately 6". Then apply the top flashing over the mounting fin, overlapping the side pieces and extend past the side flashing by approximately 1". Lastly fold down the WRB flap over the flashing, tape the diagonal cuts above each corner.

Finless Installation

Note: To complete a finless frame installation, allow a 1/4" gap between the exterior cladding, siding, brick, stucco or stone and the window frame on all sides (except vinyl J-channel). The gap (expansion joint) should be filled with correct size backer rod, then sealed with a high grade exterior sealant and will need to be maintained.

Additional Instruction for 3 and 4-panel doors

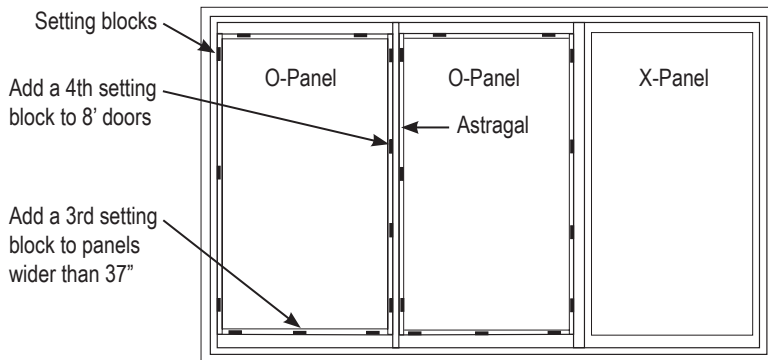
Install insulated glass for 3 and 4 panel doors

Apply glazing tape to the door frame to install the fixed panels. Start from top left corner apply glazing tape across the head making sure to extend tape past glazing lip. Cut tape at corner with utility knife. Apply glazing tape down both jambs, cutting tape each time with utility knife. Apply glazing tape at sill making sure to extend past tape on jambs.

- Pull blue backing off glazing tape.
- Apply neutral cure silicone at each corner joint to fill voids where tape ends meet.
- Place 1/8" setting blocks on sill 2" from each end and on 12" centers.
- Install insulated glass per the applied label.
- Install 1/8" setting blocks 2" from ends and 12" centers around perimeter of door panel frame.
- Install head and sill glazing bead in glazing bead track of frame. If glazing bead is too long trim to fit.
- Install jamb glazing bead in glazing bead track of frame. If glazing bead is too long trim to fit.

NOTE: Do not overlap tape in corners. If tape is overlapped it will leave a void in tape and possibly result in seal failure.

NOTE: 3-Panel OOX or XOO configuration install bumper on astragal with painted rivnut and screw.



Astragal with bumper installed

Additional Instruction 4-panel doors

4-Panel Adapter Installation Instructions

- Field trim the head of the adapter to fit the opening. P-1
- Pre-drill 5 to 7 holes through the adapter and into the operator panel. Fasten with 1-1/2" screws provided. P-2 & 3
- Attach keeper in the adapter, align with handle set on other panel. Pre-drill 3 holes in adapter and fasten with 1-1/2" screws provided. P-4

