WESTERN
ARCHITECTURAL OPENINGS

Impact Collection 7670i Casement Window Installation Instructions

Integral Nail Fin Frame

Things to Know Before You Start

Removal of Old Fenestration Products

Before removing existing fenestration, verify that the replacement unit is the correct size and configuration and is free of damage. Inspect the opening for conditions that could affect installation and resolve any discrepancies before proceeding.

Ensure that any old fenestration products are removed and properly disposed of. You may be able to recycle or donate removed glass and frames. For more information, check with your local recycling agency, the American Architectural Manufacturers Association, the U.S. Environmental Protection Agency, or the Building Materials Reuse Association to locate a nearby company or organization that accepts used windows and doors. To donate removed products, contact local nonprofits in need of building supplies, such as Habitat for Humanity.

Please note: Homes and condominiums built before 1978 may have lead-based paint, which can pose serious health hazards during removal. Information and instruction regarding proper management of lead-based paint is available at www.epa.gov/lead.

Installation Preparation

Casement windows are manufactured specifically for each application. Before installation, carefully review and understand these instructions and any drawings supplied. Western Architectural Openings products should be installed only by experienced and qualified installation professionals. Failure to follow these instructions may result in poor performance, including operation, security, and weatherproofing failures, and may void Western Architectural Openings' express limited warranties.

Verify that the window is the correct size and unit number marked on the opening. For mulled windows, refer to the Mull Sealing Instructions and the specific approval for each window type.

Impact anchorage is based on Florida Product Approval 47014, drawing CA7670FPA-LM dated August 27, 2024. The supplied approval covers the integral fin frame and excludes the High Velocity Hurricane Zone (HVHZ). Confirm that the unit size, design pressure, substrate, and configuration match the approved application. The approval lists a design pressure of +50/−50 psf and large- and small-missile impact resistance for Wind Zone 3.

Things to Know Before You Start

Product Handling and Storage

This is a finished product that must be protected before, during, and after installation to prevent damage to the glass, frame, finish, and hardware. Upon completion of installation, mask off and protect the window from chemical exposure such as paint or mortar/stucco.

Store the window in a dry location protected from the elements. Wet packaging can damage product finishes. If packaging becomes wet, immediately replace it with dry packaging. Store and transport the window on a flat, even surface. Do not drop or drag it from the delivery truck.

Components

The components supplied vary depending on the configuration. Before proceeding, inspect the components to become familiar with them and confirm that there is no damage that will affect the appearance or performance of the installed product. Report damaged or missing parts to your supplier immediately. If screens are included, they will be shipped separately in a sealed plastic bag.

Other Tools and Products Necessary for Installation

1. Flashing membrane.
2. Sealant compatible with the flashing membrane and adjoining materials.
3. Approved #10 or #12 sheet-metal screws with pan or flat heads, in steel, 18-8 stainless steel, or 410 stainless steel. Select the substrate and minimum dimensions from the anchor table in the Nail Fin Instructions.
4. Anchors long enough to provide the required embedment beyond wall dressing or stucco. For metal substrates, at least three threads must extend beyond the metal.
5. Levels of various sizes or a laser level.
6. Pry bar.
7. Putty knife.
8. Dead-blow rubber mallet.
9. Glazing roller for vinyl.
10. Load-transferring shims. Unless a particular type is required by applicable building codes, wedge or horseshoe shims may be used. Shim evenly across the unit; each shim must cover the full frame width from front to back. Where the product is not flush to the substrate, provide shims at a maximum of 18 inches on center. The approved installation sections show a maximum shim thickness of 1/4 inch.

Things to Know Before You Start

Weatherproofing

Waterproof rough openings in accordance with AAMA Installation Masters standards, flashing and sealant manufacturer instructions, and applicable local building codes.

Seal anchors and frame corners. Ensure anchors meet required embedment and edge distances. Anchors that contact dissimilar materials must meet the Florida Building Code requirements for corrosion resistance.

Wood bucks must be designed and installed to transfer window loads to the structure. Buck design and installation are the responsibility of the engineer or architect of record.

Frame Installation

1. Frame Components: Each window has a head assembly, a sill, and left and right jamb assemblies (Fig. 1).

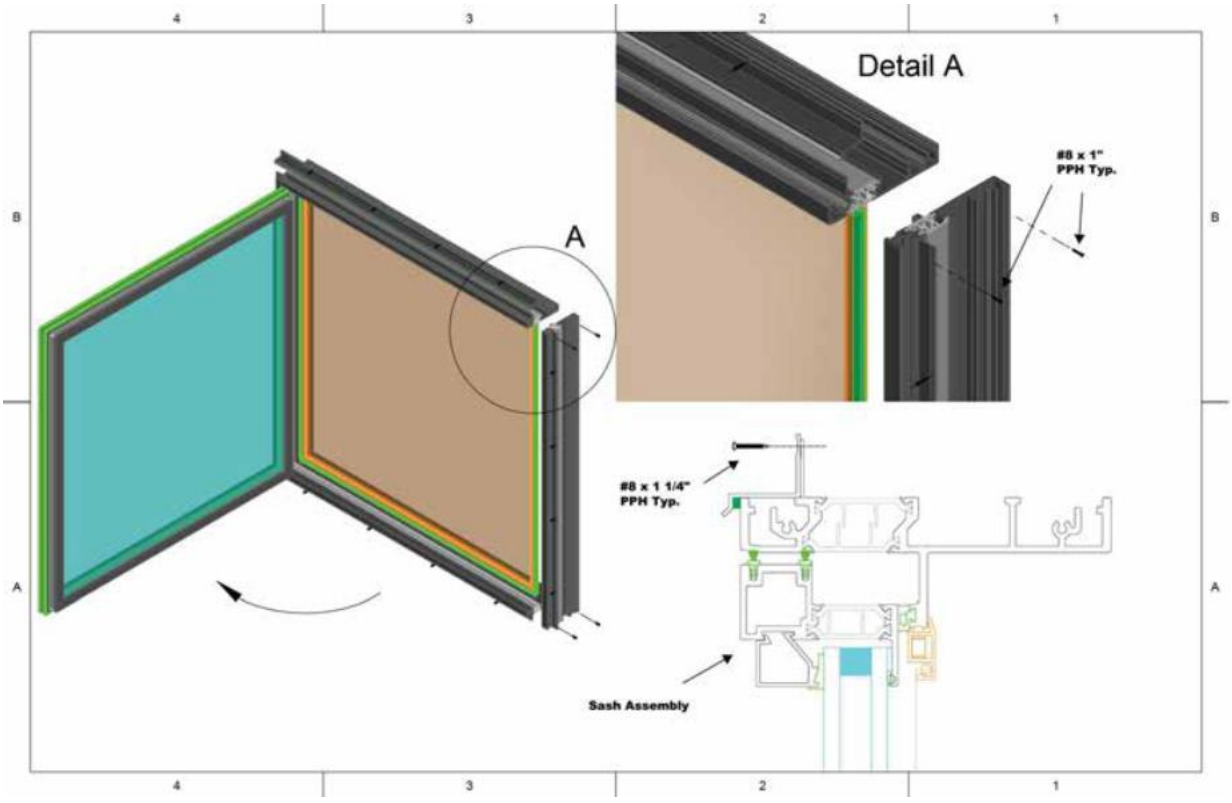


Fig. 1 Frame component orientation from the original installation instructions. The assembly screws shown in this illustration are not the structural installation anchors. Use the impact anchorage details in Figs. 2 and 3.

Nail Fin Instructions

1. Refer to the supplied CAD drawings or order acknowledgement. Inspect the rough opening to confirm it is prepared for the configuration and size being installed. Confirm the integral fin configuration and approved substrate before selecting anchors.
2. Verify that the opening is the appropriate size and is square, plumb, and level. The approval shows a maximum buck size of 48 inches wide by 94 inches high (Fig. 2).
3. Apply a continuous 3/8-inch bead of sealant to the interior face of the nail fin and place the window into the flashed opening. The nail flange must make full contact with the opening.
4. Check that the unit is square, plumb, and level. Shim as needed. Where the product is not flush to the substrate, use load-transferring shims at a maximum of 18 inches on center; do not exceed the 1/4-inch shim space shown in Fig. 3.
5. Secure the head, sill, and both jamb integral fins to the structure using the approved anchors below. Space anchors a maximum of 12 inches on center. Apply the 5-inch maximum and 6-inch maximum end dimensions at the locations shown in Fig. 2. Meet the substrate-specific edge distance and embedment requirements. Do not use the original through-frame equal-leg screw pattern for this installation.
6. Seal all screws, fin edges, and frame corners when anchoring is complete.
7. Recheck that the unit is square, plumb, and level.
8. Close the sash and verify proper operation of the hardware and lock. The window and sash locks should operate easily and smoothly.

Approved Anchors Through the Integral Fin

#10 or #12 sheet-metal screws, pan or flat head, in steel, 18-8 stainless steel, or 410 stainless steel. Source: CA7670FPA-LM, sheet 1, Table 1.

Substrate	Minimum edge distance	Minimum embedment
Southern Pine (SG = 0.55)	1/2 inch	1-7/16 inches
6063-T6 aluminum	7/16 inch	0.060 inch
A36 steel	5/16 inch	0.050 inch
A653 steel stud Grade 33	5/16 inch	0.035 inch (20 ga)

For metal substrates, select a screw length that provides at least three threads beyond the metal. All embedment must be into the specified base material beyond wall dressing or stucco.

Nail Fin Instructions

Impact Anchorage Locations

Anchor the integral fin around the full perimeter at a maximum of 12 inches on center. Follow the 5-inch maximum and 6-inch maximum end dimensions at the locations shown. The approval

shows a maximum buck size of 48 inches wide by 94 inches high. Hinge dimensions identify the hardware layout; they are not anchor spacing.

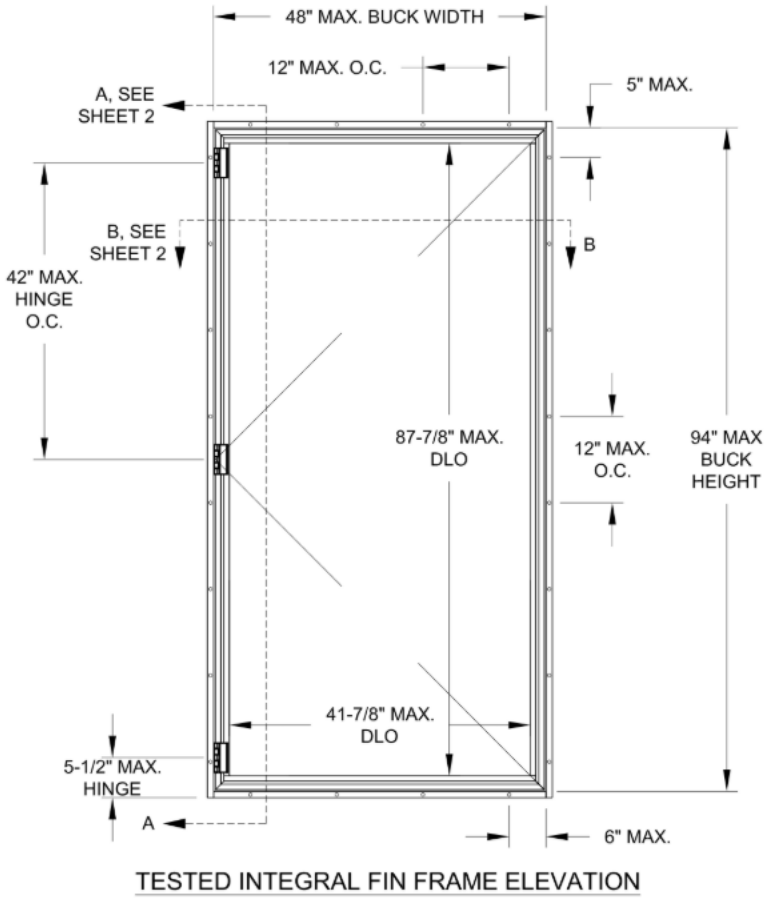


Fig. 2 Tested integral fin frame elevation. Drawing excerpt from CA7670FPA-LM, sheet 1. DLO indicates daylight opening. Dimensions and detail references are retained from the approval.

Impact Anchorage and Mullion Sections

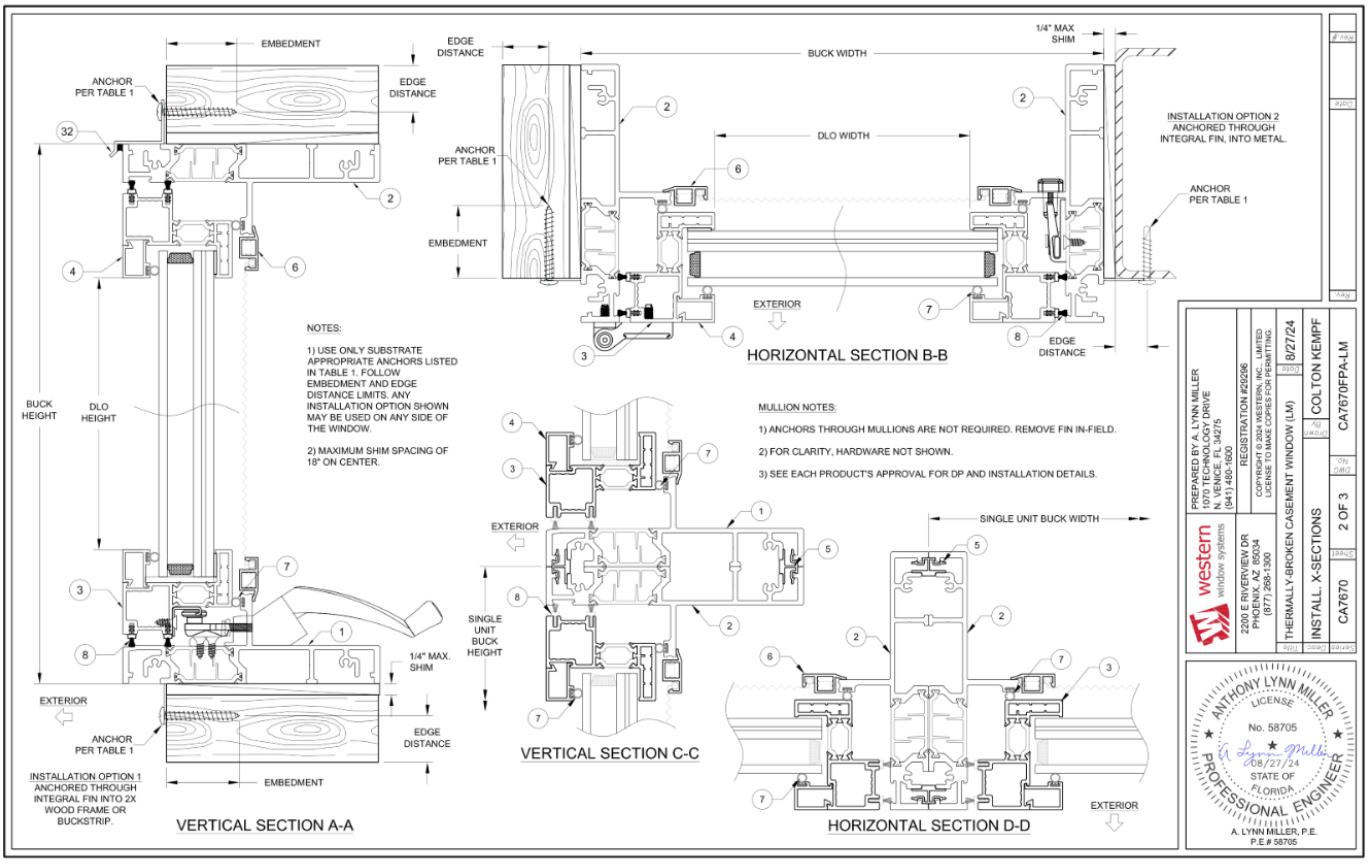


Fig. 3 CA7670FPA-LM, sheet 2, reproduced as supplied. Sections A-A and B-B show anchorage; sections C-C and D-D show mulling. Either installation option may be used on any side of the window. Use the substrate-specific anchor table in the Nail Fin Instructions. Item 5 is mullion clip E6666B.

Equal Leg Instructions

The supplied impact approval provides anchorage through the integral fin only. It does not provide a through-frame equal-leg installation method. Equal-leg installations require separate approved anchorage details for the applicable impact configuration.

Mull Sealing Instructions

For mulled impact windows, use the specific approval for each window type and the impact mullion details in Fig. 3, sections C-C and D-D. The overall design pressure of the mulled assembly is the lowest rating of any individual window.

Things to Know Before You Start

1. Use sealants compatible with the building envelope's waterproofing membrane.
2. Use drip caps at the head for vertically mulled units with a nail fin. Order drip caps with the window order; they ship loose.

3. The supplied impact approval identifies mullion clip E6666B. Use the mullion components and arrangement shown in Fig. 3, sections C-C and D-D, and the applicable project details.

Equal Leg Application Instructions

The supplied approval does not detail equal-leg impact mulling. Obtain the applicable approved configuration before using an equal-leg mulled assembly.

Nail Fin Application Instructions

1. Use the approved mulled arrangement in Fig. 3, sections C-C and D-D, and the specific approval for each window type.
2. Remove the integral fin in the field at the mullion joint, as indicated in the approval. Anchors through the mullions are not required.
3. Maintain the perimeter anchorage, substrate, edge distance, embedment, and shimming requirements for each window. Seal frame corners and anchors, and complete the joint sealing and flashing in accordance with the applicable building envelope details and sealant instructions.