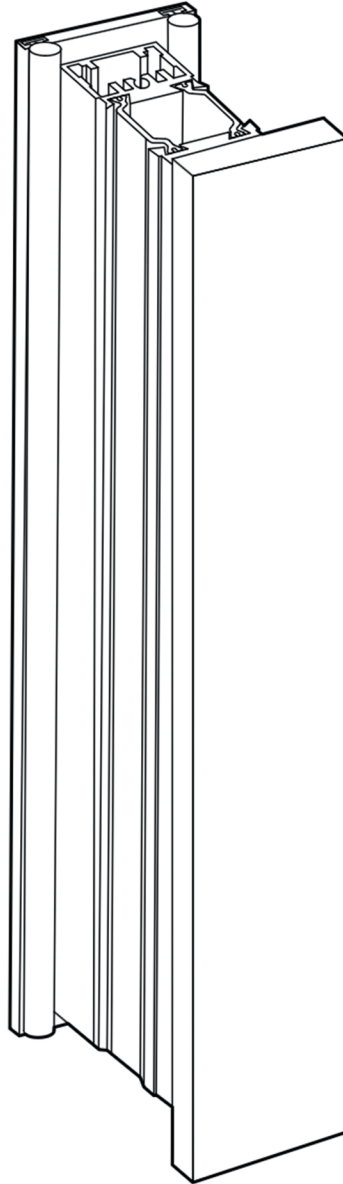


Mullion Bar

Installation Instructions



IMPORTANT NOTICE

Read these instructions thoroughly before beginning to install your RAM window or door product. Follow all guidelines regarding material use, preparation, personal safety and disposal. Failure to follow RAM's installation instructions and any other specific warnings, procedures for use, safety recommendations and standard construction practices can result in personal injury, poor product performance, and premature failure. Contact your RAM supplier if you have any questions regarding product and materials used in manufacturing. It is the responsibility of the builder, installer and subcontractors to protect the interior and exterior of RAM windows and doors from excessive contact with harsh chemical washes, construction material contamination and moisture.

Care and Maintenance

Every RAM window and door product has been designed and tested to meet or exceed industry performance and engineering standards. The key to preserving this performance is the proper installation, care, and maintenance of these products. Failure to perform regular maintenance will cause degradation of your window or door product and will void the manufacturer's warranty. Detailed care and maintenance instructions can be found on our website at ramwindows.com.

Cleaning Instructions

In addition to proper care and maintenance, all RAM window and door products should be cleaned using approved chemicals and solvents that prevent product degradation. A more detailed listing of cleaning methods and warnings can be found on our website at ramwindows.com. General cleaning instructions are as follows:

FRAMES: As with any building product, aluminum requires reasonable care during the installation process as well as periodic cleaning and maintenance after installation. Although both painted and anodized aluminum has excellent corrosion resistance properties, its natural beauty can be marred by harsh chemicals, abrasive materials or neglect. Such conditions usually affect only the surface appearance and do not reduce the service life of the product, however, the marks resulting from such mistreatment may be permanent.

During and immediately after installation:

- Protect all surfaces. It is especially important to not allow stucco or other concrete materials to set on the anodized or painted finish. These building materials are caustic and will permanently damage the finish.
- Clean metal surfaces with mild soapy water, using a sponge or soft cloth.
- Rinse thoroughly by lightly spraying with clean water and repeat as needed.
- Wipe dry with a soft cloth.
- Make sure all weep holes, drain holes and tracks are unclogged.

GLASS: To preserve the visual and energy performance of your window or door, the glass units require reasonable care and attention. The glass surface, especially tempered glass, can be easily scratched or permanently damaged by improper cleaning.

NOTE: Please reference Cardinal Glass Industries for proper handling of glass. More information can be found at cardinalcorp.com.

During and immediately after installation:

- Protect all surfaces. It is especially important to not allow stucco or other concrete materials to set on the glass surface. These building materials are caustic and will permanently damage the glass surface.
- Clean glass surfaces with mild soapy water, using a sponge or soft cloth.
- Rinse thoroughly by lightly spraying with clean water and repeat as needed.
- Wipe dry with a soft cloth.
- Make sure all weep holes, drain holes and tracks are unclogged.
- HELPFUL TIP: WINDOW AND DOOR STICKERS CAN BE MORE EASILY REMOVED IF SOAKED BY WATER FOR FIVE MINUTES PRIOR ATTEMPTED REMOVAL.

COMPONENTS: The internal and external components of your product are essential to the proper function and overall performance of your window or door. While these components have been designed for rugged durability, they still require regular inspection and maintenance to ensure proper operation.

During and immediately after installation:

- Vacuum out and clean any dirt or debris from the sill, roller assembly and track areas.
- Lubricate the hardware components, roller assembly and track with a wet silicone spray using a straw applicator.
- Inspect the weather-stripping to make sure it is clean and not torn or brittle.
- Inspect the window or door locks to make sure they function properly. Contact the manufacturer to adjust the locks if needed.

SUPPLIES REQUIRED:

- Moisture Resistant Shims
- Installation Sealant

TOOLS REQUIRED:

- Tape Measure
- Level
- Drill
- Impact Driver

Other construction materials may be required. Read the instructions and inspect the wall conditions before you begin.

TWO OR MORE PEOPLE WILL BE REQUIRED FOR THE MULLBAR INSTALLATION.

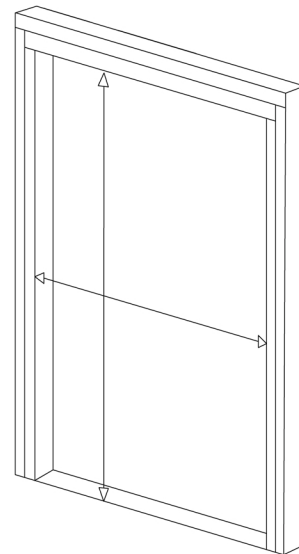
FLOATING MULLION BAR

(For structural mullion bar, go to Page 7)

1 PREPARE FOR INSTALLATION

- Prepare the rough opening** per product specific installation instructions, ensuring it is accurately sized.
- Measure the mullion bar.** It may need to be trimmed to fit properly into the opening.

1A

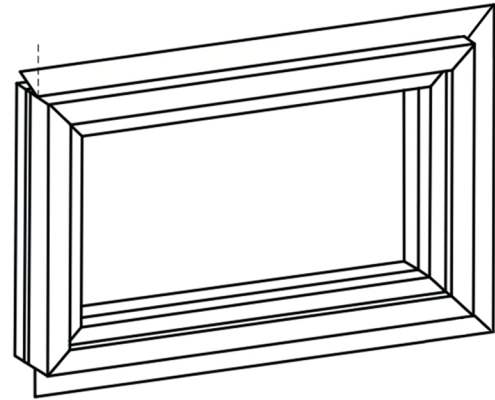


2 ANCHOR FIRST PRODUCT

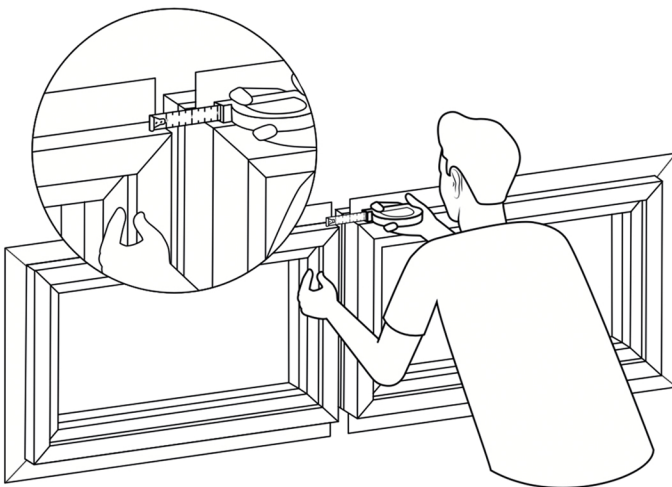
Note: If the product is nail fin installed, make sure that there is no nail fin on the side that will accommodate the mull bar.

- A. **Make sure horizontal nail fins are cut square** to the end of the mull bar side (notched the miter point).
- B. **Using one anchor, secure the jamb** opposite of the side of the mullion bar to the opening. The product should be free to shift slightly, do not anchor the entire perimeter.

2A



3A

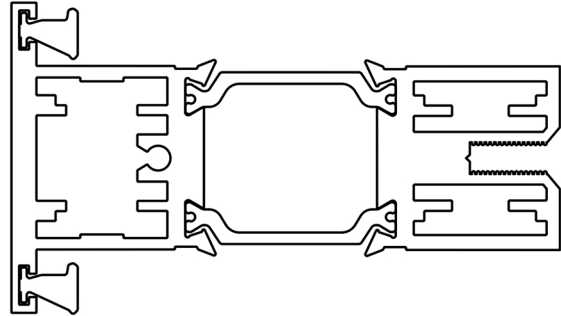


3 INSTALL SECOND PRODUCT

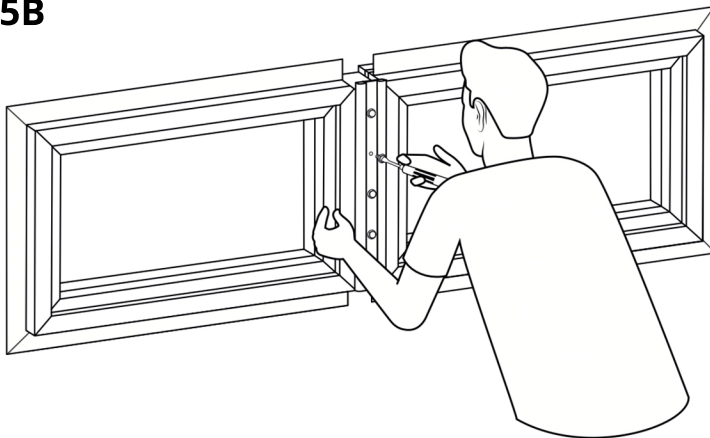
- A. **Using one anchor, secure the jamb** opposite of the side of the mullion bar to the opening. Ensure that there is at least 1" gap (1.0625-1.125 acceptable) in between both installed products.

4 INSTALL WEATHERSTRIPS 4A

- A. Ensure weatherstrips are installed on both t slots of the mullion bar.



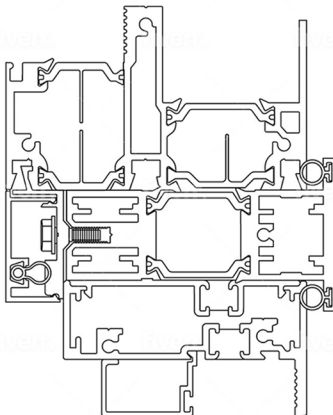
5B



5 ANCHOR NUT PLATE

- A. From the interior, slide the mullion bar between the installed products in the 1" gap left earlier.
- B. Bring over the nut plate and use the provided anchors to anchor the nut plate to the mullion bar.
- C. Anchor the first and second product per product specific install instructions. **Note:** If the product is a single-hung or sliding window, please see the nut plate illustration below.

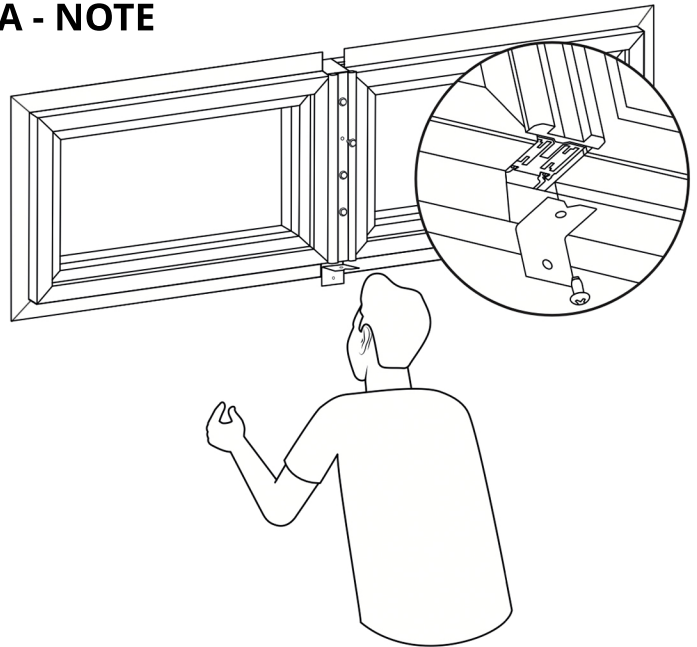
5 - NOTE



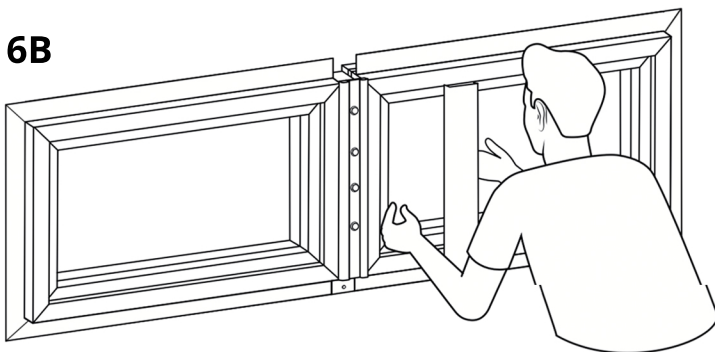
6 INSTALL SNAP COVER

- A. **Once anchored, ensure the snap cover is sized appropriately.** It may require some trimming to get to optimal size.
Note: If the configuration is nail fin, seal behind then install the provided nail fin clips into the top and bottom of the installed mullion bar.
- B. **Snap on the cover over the nut plate** to hide anchors.
Note: If one of the products is a single-hung or sliding window, the snap cover will have a weatherstrip installed. Ensure that the weatherstrip is there and fully seated.
- C. **Run a bead of sealant** where the snap on cover meets the products to ensure a weatherproof seal.
- D. **Fill any voids between the frame perimeter and the opening** with closed cell foam backer rod.
- E. **Finish individual install** of each respective window per their specific install instructions.

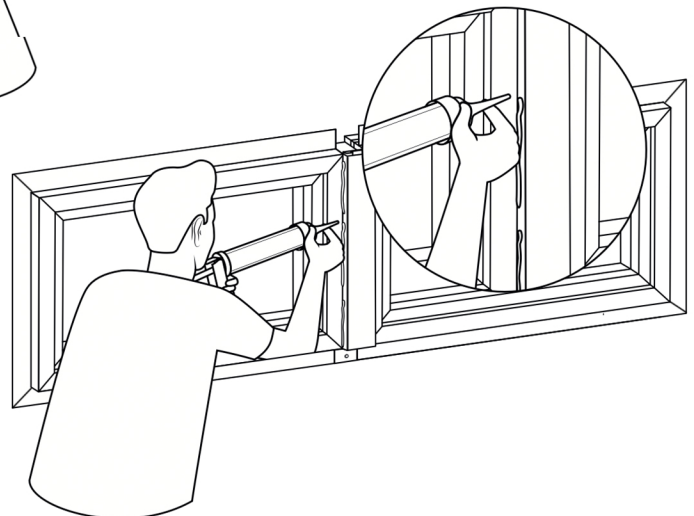
6A - NOTE



6B



6C



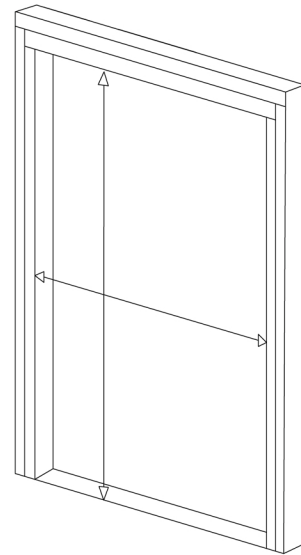
STRUCTURAL MULLION BAR

(For floating mullion bar, go to Page 3)

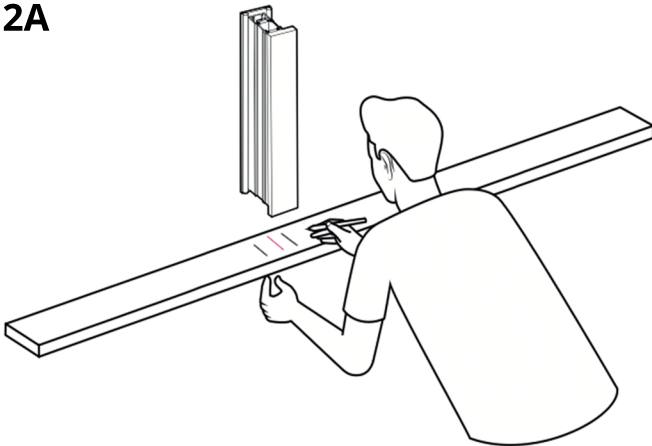
1 PREPARE FOR INSTALLATION

- A. **Prepare the rough opening** per product specific installation instructions, ensuring it is accurately sized.
- B. **Measure the mullion bar.** It may need to be trimmed to fit properly into the opening.

1A



2A

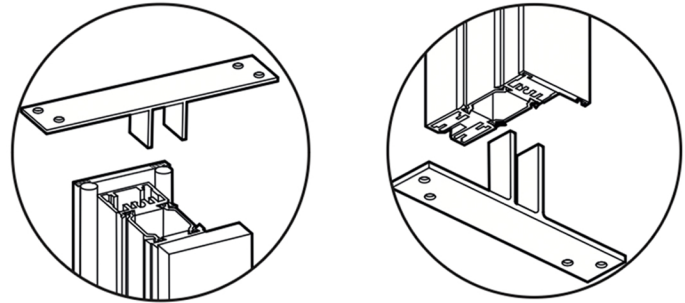


2 MARK THE CENTERPOINT

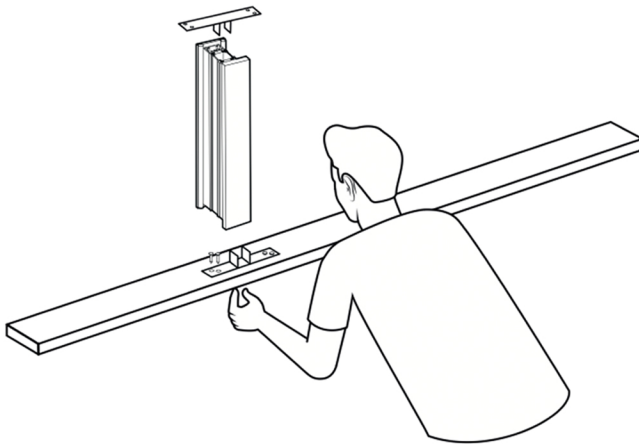
- A. **Mark the centerpoint of where the mullion bar will eventually sit.** From that centerpoint mark 0.5" on either side of it.

3 PLACE THE BRACKETS 3A

A. Prior to installing the mullion bar, press in the provided structural brackets into the top and bottom of the mullion bar. The machined flat face of the bracket should face the interior of the mullion bar.



4A



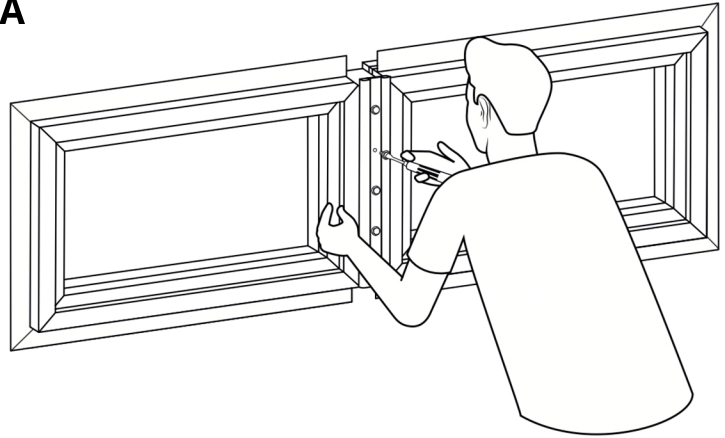
4 ANCHOR THE BRACKETS

- A. Bring the mullion bar to the marks made previously and anchor the bracket(s) to the opening using the appropriate (#10, flat head) anchors.
Note: If the configuration is nail fin, you can install the nail fin clips at this time to the top and bottom of the mullion bar.
- B. Place 0.125" incompressible shim along the bottom of the opening to space up the products to clear the mull bar anchor brackets.
- C. Using one anchor, secure the jamb opposite of the side of the mullion bar to the opening. The product should be free to shift slightly, do not anchor the entire perimeter.

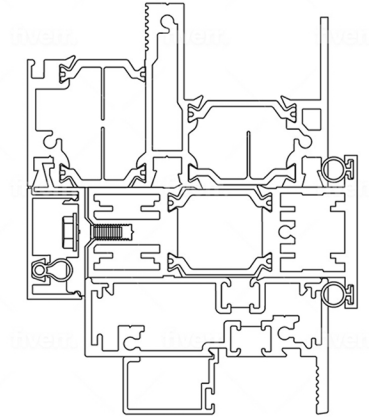
5 ANCHOR NUT PLATE

- A. **Bring over the nut plate** and use the provided anchors to anchor the nut plate to the mullion bar.
Note: If one of the products is a single-hung or sliding window, the nut plate will have a key in feature that captures the frame of the single-hung or sliding window. Ensure that is properly in place before anchoring.
- B. **Anchor the first and second product** per product specific install instructions.
Note: If the product is a single-hung or sliding window, please see the nut plate illustration below.

5A



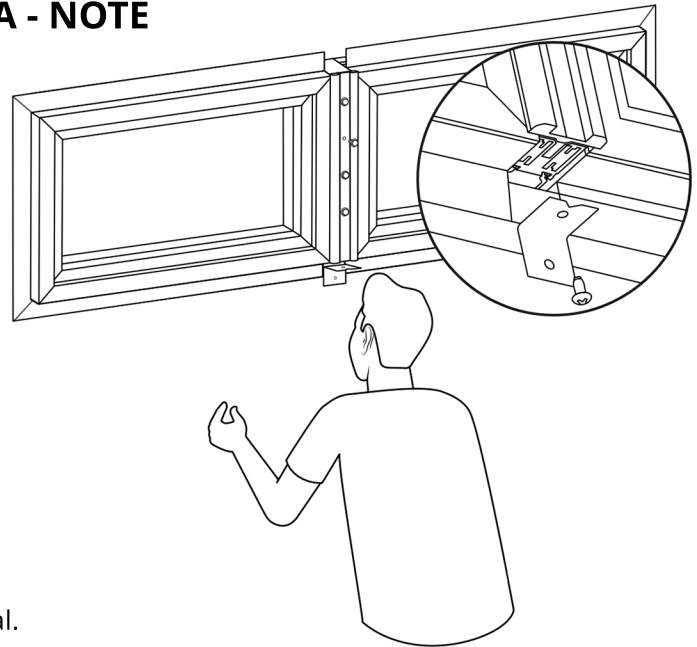
5 - NOTE



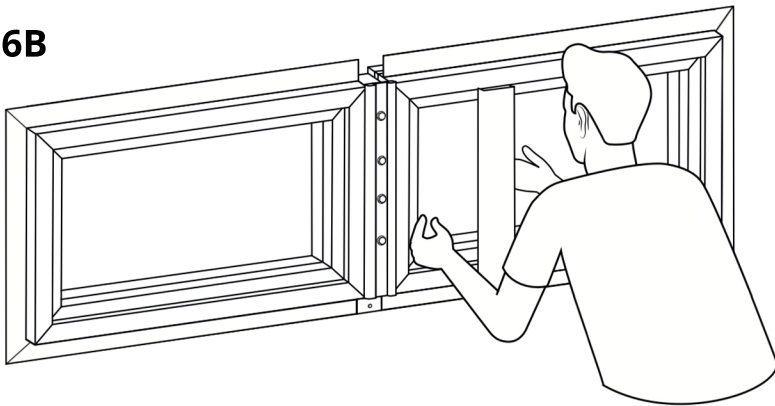
6 INSTALL SNAP COVER

6A - NOTE

- A. **Once anchored, ensure the snap cover is sized appropriately.** It may require some trimming to get to optimal size.
Note: If the configuration is nail fin, seal behind then install the provided nail fin clips into the top and bottom of the installed mullion bar.
- B. **Snap on the cover over the nut plate** to hide anchors.
Note: If one of the products is a single-hung or sliding window, the snap cover will have a weatherstrip installed. Ensure that the weatherstrip is there and fully seated.
- C. **Run a bead of sealant** where the snap on cover meets the products to ensure a weatherproof seal.
- D. **Fill any voids between the frame perimeter and the opening** with closed cell foam backer rod.
- E. **Finish individual install** of each respective window per their specific install instructions.



6B



6C

