

Elevate ELDG-ELDH Over Horizontal 1/2" MRF

Field Application Instruction

Before You Begin

Please read through these instructions thoroughly and in their entirety before attempting to mull windows.

More than one mull kit may be necessary. Field mulls beyond factory mulled configurations are not recommended.

When specifying or considering the structural load requirements for windows and doors, it is important to consider the method of fastening the unit(s) together in addition to the method of fastening multiple assemblies into an opening. The methods contained herein may not be appropriate for all performance requirements. Selection of the appropriate fastening method(s) is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or installer.

For assembly limitations beyond factory configuration sizes, contact your local Marvin dealer.

IMPORTANT

Read these instructions thoroughly before beginning to assemble any multiple Elevate units. Failure to assemble as recommended will void any warranty, written or implied. Refer to specific product installation instructions for proper installation methods.

You Will Need to Supply

- Safety glasses
- Hearing protection
- Hacksaw
- 3/16" Crown x 1" leg 18 gauge staples with staple gun
- Phillips screwdriver
- Hammer
- Power Drill
- Diamond abrasive blade
- ASTM C920 Grade NS class 25 sealant with gun
- 1/4" drill bit
- Clamps
- 3/16" Drill bit
- 1/2" Crown x 1 " leg 16 gauge staples with gun
- 4 1/4" clear vinyl tape or similar product



WARNING!

This product can expose you to chemicals including titanium oxide, which is known to the state of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.



WARNING!

This product can expose you to chemicals including methanol, which is known to the state of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



WARNING!

Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.



WARNING!

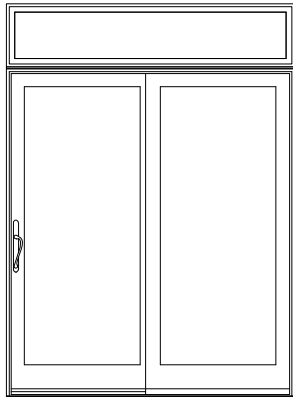
Always practice safety! Wear the appropriate eye, ear, and hand protection, especially when working with power tools.

Parts Kits

1/2" Horizontal MRF Mull Kits - ELDG-ELDHD above Mull		
Components for 1/2" Horizontal MRF Mull Kits - ELDG-ELDHD above Mull - Lineal parts for kits are 96" long		
End Plug 1/2" Space Mull PN 11860389	2 per kit	2 Extra plugs ordered separately per additional mull
A3134 Mulling Pin, 1/2" Space Mull 2 X 96" (2438)	2 per kit	
V2789 Mull Weather Strip, 1/2" 96" (2438)	1 per kit	
PUR with 1 1/2" Tape 96" (2438) *a diamond abrasive blade is recommended for cutting MRF	1 per kit	
V2787 Mull Cover (w/Glazing Tape) 96" (2438)	1 per kit	
Center Plug PN 11860388	1 per kit	1 extra plug ordered separately per additional mull (when required)
#10 x 2 3/4" screw PN 118000869	2 per kit	For assemblies wider than 2W on the bottom row (doors only), 2 screws are needed for each additional wide unit
W13061 6 9/16" IIFD Horizontal Mull Support 96" (2438)	1 per kit	
W12870 Mull Support 96" (2438)	1 per kit	
W1242 Mull Trim 96" (2438)	1 per kit	
Sill bracket - IIFD or ISFD 96" (2438)	1 per kit	
#7-19 x 5/8" Bracket Screw PN 11800743	40 per kit	40 extra screws needed per additional mull
#8 x 1 3/4" End Plug Screw PN 11808176	2 per kit	2 extra screws needed per additional mull
V119 Continuous Drip Cap 96" (2438)	1 per kit	For assemblies wider than 96", special parts are required
Nail Fin Connector 96" (2438) Part #105000212	2 per kit	2 extra connectors are required per additional mull
For more information on parts and part kits, please refer to the Part Manual.		

Part Cut Lengths
$\frac{1}{2}$ " Mulling Pin: Length = Assembly Height – 1 7/16"
Mull weather strip: Cut each piece to fit as instructed in the procedures below.
$\frac{1}{2}$ " MRF w/ Tape: Length = Assembly Height – 1 7/16"
Mull Cover w/ Tape: Length = Assembly Width
6 9/16" ELIFD Horizontal Mull Support Length = Assembly Width – 3/4"
1/2" Mull Support: Length = Assembly Height – 3/4"
Continuous Drip Cap: Length = Assembly Width + 1/16"

Mulling- Horizontal Mullion on a Single Wide Assembly (Direct Glaze over Doors and DH family not including Gliders or ELIFD with jamb depth larger than 4 9/16")



Remove and discard all shipping materials. Inspect the unit to ensure it is the right size, color, etc. and that there is no damage. If you find a discrepancy with your unit, contact your local Marvin representative and provide them with the customer service number located in one of the corners of the glass. See Figure 1.



Figure 1

1. Remove and set aside all screens and loose hardware.

2. Lay frames on a flat surface in the desired mulling configuration (interior, wood side facing up). Remove nailing fin from the head jambs and sills that will be mulled together. See Figure 2.

NOTE: Picture shows all nailing fins removed. Only remove nailing fin on jambs/sills that will be mulled together, and any header that will need a continuous drip cap after being mulled together.

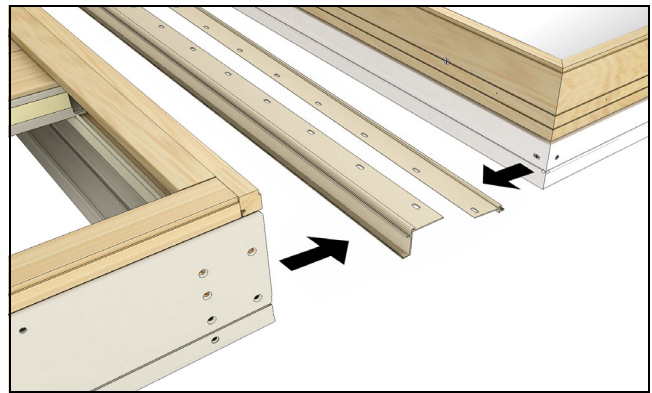


Figure 2

3. Insert one aluminum mulling pin into the kerf of the sill of the upper unit. Ensure mulling pin is roughly 3/4" from either edge of the units. See Figure 3.

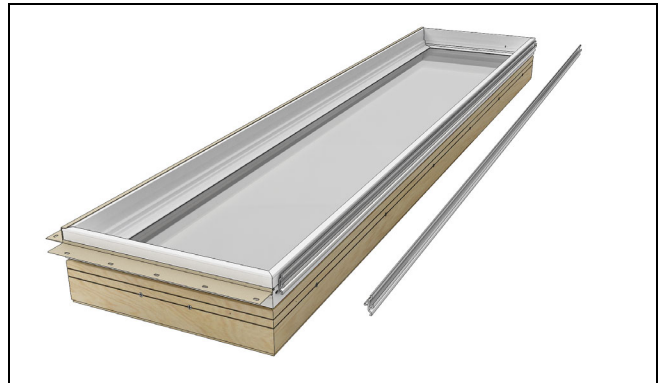


Figure 3

4. Insert the remaining mulling pin into the lower unit, in the opposite orientation as the first pin (IE. Hook facing up versus facing down) and place roughly 3/4" off the edges of the frame. See Figure 4.

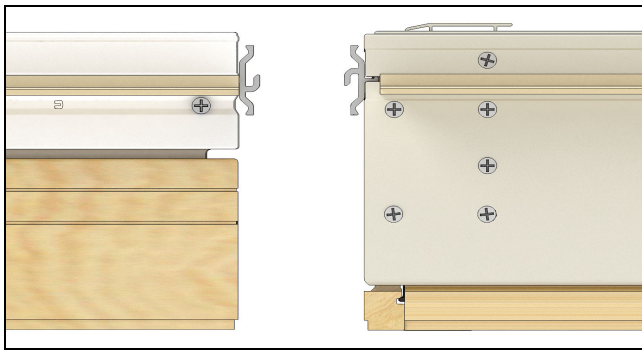


Figure 4

5. Snap the frames together by interlocking the mull pins. Ensure that the pins are seated correctly and the interior unit faces are flush. See Figure 5.

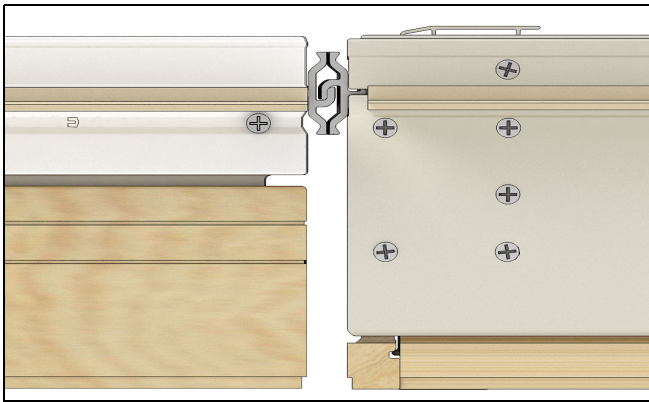


Figure 5

6. Peel back the backing on the tape and dog-ear it, exposing the tape by approximately 2". See Figure 6.

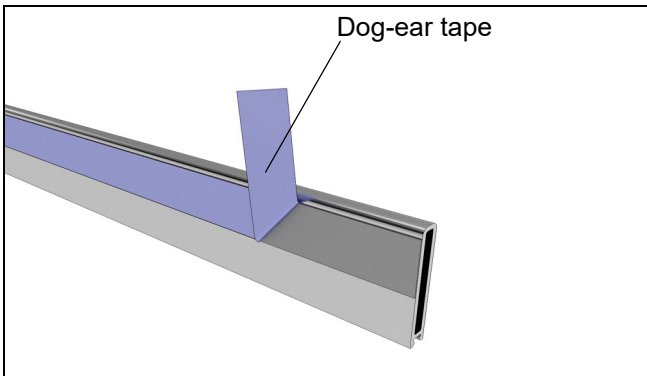


Figure 6

7. Slide the MRF onto the mull pins ensuring the mull pins fit fully into the MRF kerf. See Figure 7.



Figure 7

8. Insert the end plugs into each end of the mull into the MRF. Ensure that the end plug is fully seated into the MRF, the end plug is flush with the end of the frame and the end plug is flush with the exterior face of the units. *NOTE: The MRF may need to be shifted slightly to allow for precise placement. See Figure 7.*



Figure 8

9. Screw #8 x 1 3/4" provided fasteners into the end plugs. See Figure 9.

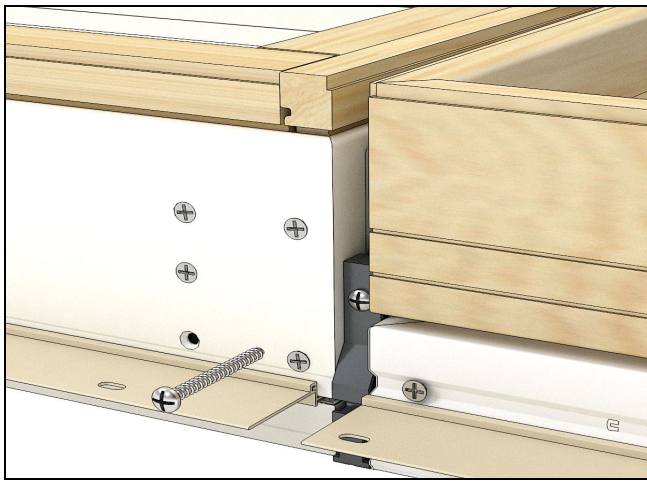


Figure 9

10. Ensure all components are aligned and then remove tape backing from MRF. See Figure 10.

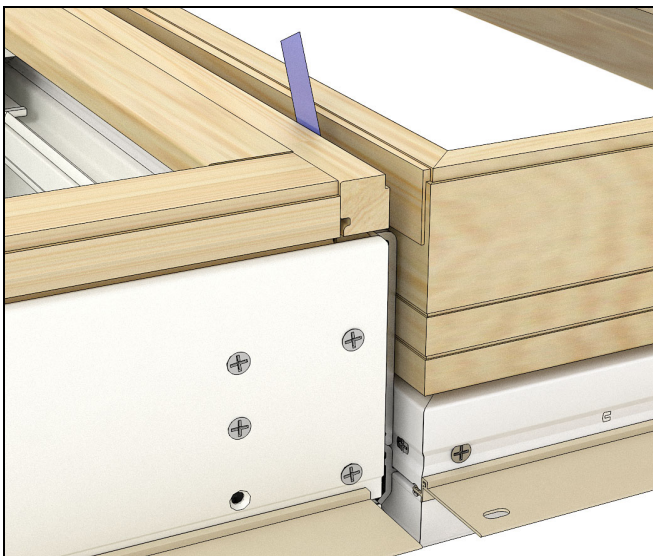


Figure 10

11. Insert 1/2" mull support on top of the MRF between the cavity of the two frames. Ensure the mull support is flush with the interior plane of the unit frames. See Figure 11.

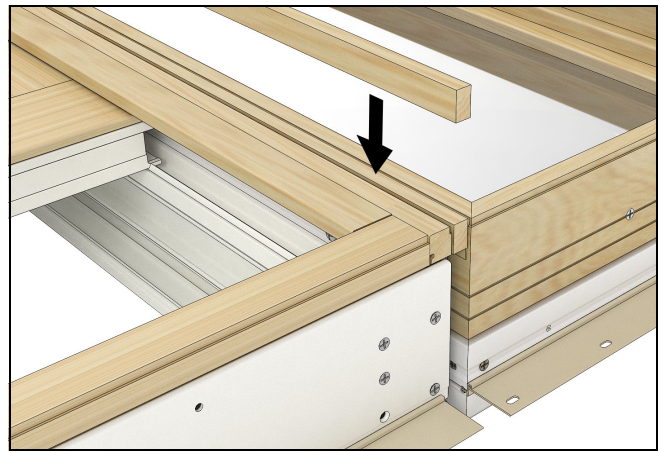


Figure 11

12. Lightly clamp the frames together on interior (use wood blocks to protect interior) near each end to hold the mull units in place. See Figure 12. *NOTE: 2 wide 1 high vertical mull clamping shown. Clamp units together according to the desired configuration.*

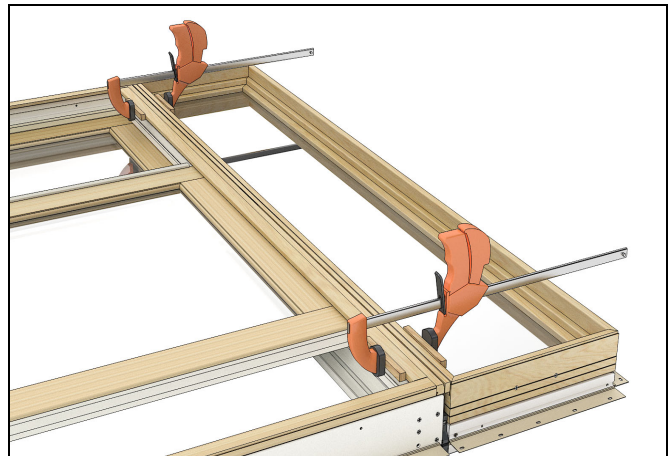


Figure 12

13. Connect the frames to the mull support with two rows of alternatively spaced staples a maximum of 1" from end and 7" on center. See Figure 13.

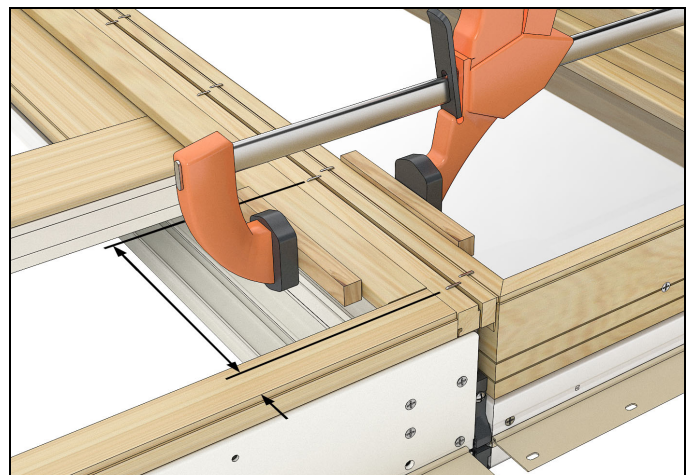


Figure 13

14. Flip unit so exterior side faces upwards. Measure and cut weather strip pieces. Gap between end plugs and weather strip should not exceed 1/8". See Figure 14.



Figure 14

15. Fully seat weather strip pieces onto the aluminum mulling pin between all end plugs. See Figure 15.

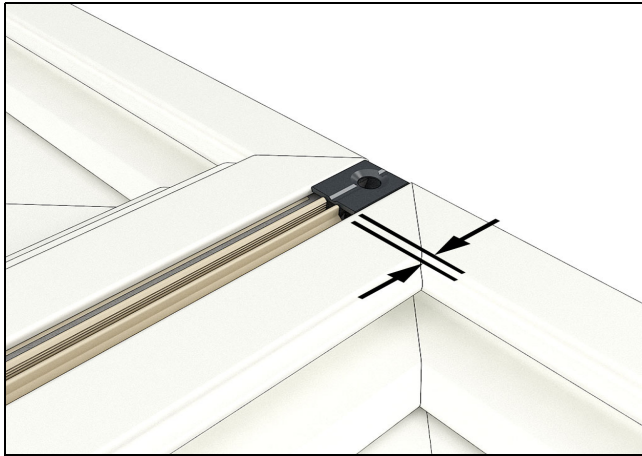


Figure 15

16. Place a piece of clear vinyl tape (or similar) on the frame covering each end plug as shown in Figure 16 and ensure tape overhangs at least 2" on each side of plug.



Figure 16

17. Inject end plugs with sealant until squeeze out reaches specified areas. See Figure 17.



Figure 17

18. Notch exterior mull cover to fit over end plugs by 1" +/- 1/4" from end. See Figure 18.

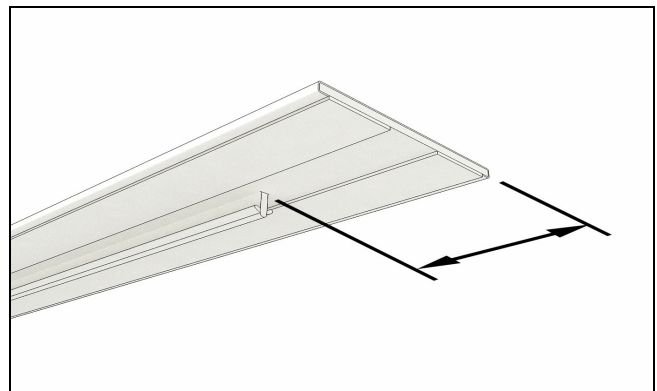


Figure 18

19. Ensure exterior surfaces of frames are clean and dry for optimum tape adhesion. Dog ear both pieces of backing on the tape on the exterior cover on one end. Seat exterior mull cover into the mull weather strip, ensuring the cover is fully seated and the tape is in full contact with window frame surface. See Figure 19. Completely remove backing from tape on exterior mull cover. Apply even pressure along the entire length of exterior cover ensuring tape is fully adhered.

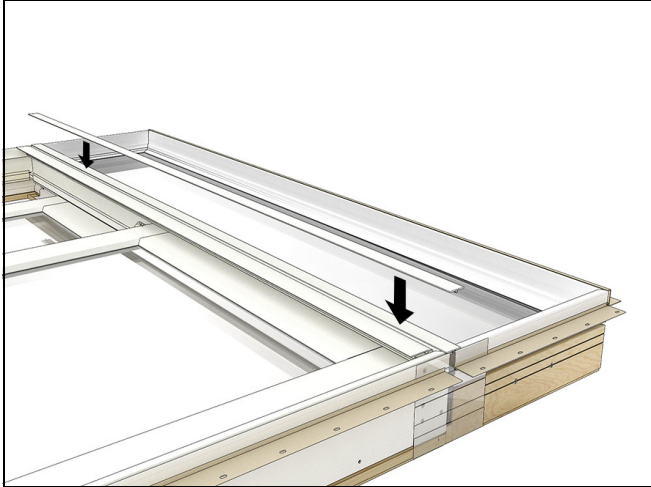


Figure 19

20. Apply nailing fin connector at the jambs centered over the gap between separate nailing fins by removing the paper backing from the connector and pressing into place. Then seal around the edges with sealant. See Figure 20.

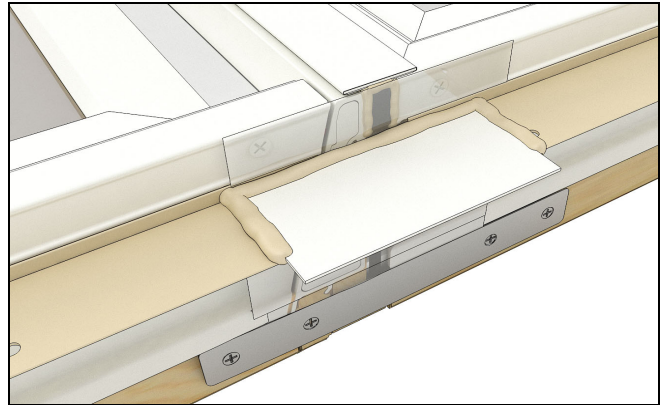
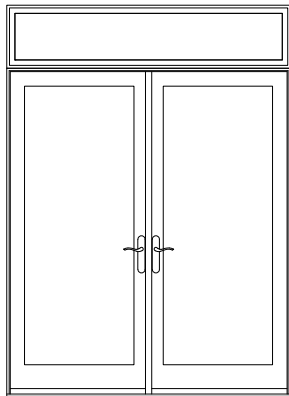


Figure 20

21. If applicable, jamb extension can now be installed. Follow installation instructions for installing unit into rough or masonry opening. Interior mull trim should be applied only after unit is completely installed and interior trim is applied. *NOTE: Interior mull trim should be applied only after unit is completely installed and interior trim is applied.*

Mulling - Horizontal Continuous Mull over 4 9/16" ELIFD, ELOFD, ELDH Family



If assembly is 1 wide, proceed to step 2. If the assembly is 2 wide, vertical mullions must be assembled first.

Refer to the Elevate Inswing/Outswing Door Mullion Kit Instructions – Vertical mulling procedures for instructions on how to mull the doors together.

STOP AND RETURN TO THESE INSTRUCTIONS AFTER ATTACHING SILL MULL BRACKET

Refer to the Elevate Inswing/Outswing Door Mullion Kit Instructions – Multiple Wide Transom Over Swinging Door procedures for mulling direct glaze units together.

- For vertical frame-frame mulling procedures, refer to the Elevate Double Hung/Glider Mullion Kit Instructions.

1. Once vertical mullions are assembled, proceed to step 3.

2. Remove and discard all shipping material. Inspect the unit to ensure it is the right size, color, etc. and that there is no damage. If you find a discrepancy with your windows, contact your local Marvin representative and provide them with the customer service number located in one of the corners of the glass. See Figure 21.



Figure 21

3. Remove and set aside all screens and loose hardware. Lay frames on a flat surface in the desired mulling configuration (interior, wood side facing up). Remove nailing fin from the head jams and sills that will be mulled together. See Figure 22. *NOTE: Picture shows all nailing fins removed. Only remove nailing fins on jambs/sills that will be mulled together, and any header that will need a continuous drip cap after being mulled together.*



Figure 22

4. When mulling together units that contain frame to frame mulls, apply sealant in nailing fin kerf across mull and down the mull intersection to the exterior face as shown in Figure 23.



Figure 23

5. Insert one aluminum mulling pin into the kerf of the sill of the upper unit(s). Ensure Mulling pin is roughly $\frac{3}{4}$ " from either edge of the unit(s). See Figure 24.

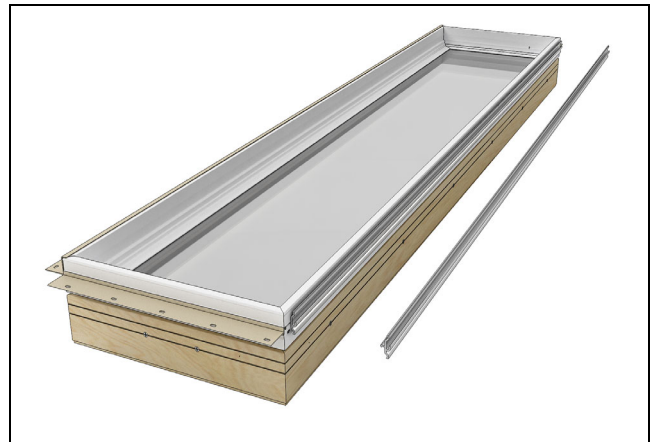


Figure 24

6. Insert the remaining mulling pin into the lower unit(s), in the opposite orientation as the first pin (IE. Hook facing up versus facing down) and place roughly $\frac{3}{4}$ " off the edges of the frame. See Figure 25.



Figure 25

7. Snap the frames together by interlocking the mull pins. Ensure that the pins are seated correctly and the interior unit faces are flush. See Figure 26.



Figure 26

8. Peel back the backing on the tape and dog-ear it, exposing the tape by approximately 2". See Figure 27.

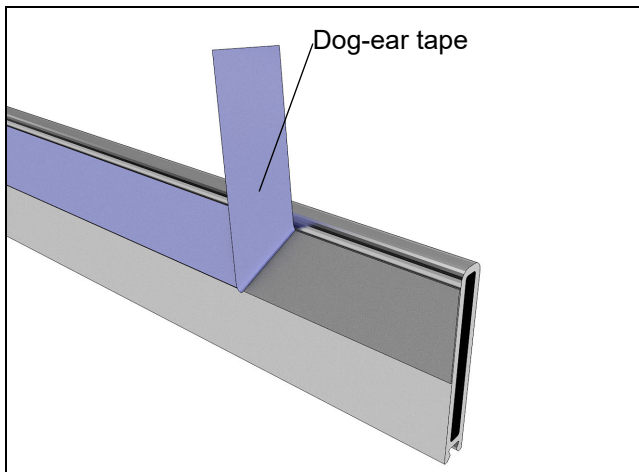


Figure 27

9. Slide the MRF onto the mull pins ensuring the mull pins fit fully into the MRF kerf. See Figure 28.

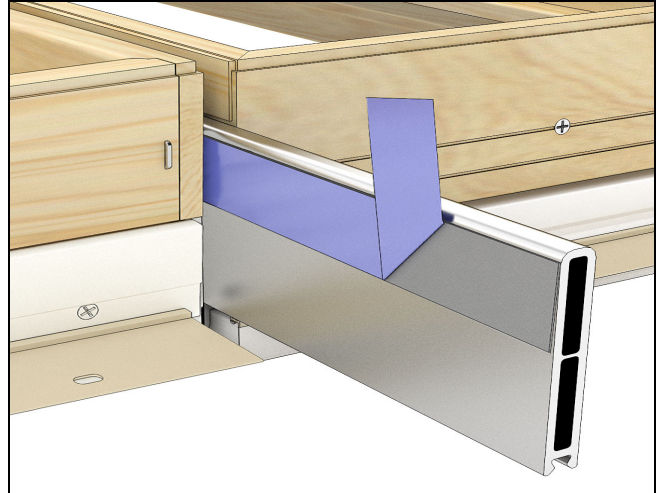


Figure 28

10. Insert the end plugs into each end of the mull into the MRF. Ensure that the end plug is fully seated into the MRF, the end plug is flush with the end of the frame and the end plug is flush with the exterior face of the units. *NOTE: The MRF may need to be shifted slightly to allow for precise placement.* See Figure 29.



Figure 29

11. Screw #8 x 1 3/4" provided fasteners into the end plugs. See Figure 30.



Figure 30

12. Ensure all components are aligned and the completely pull out tape backing from the MRF. See Figure 31.

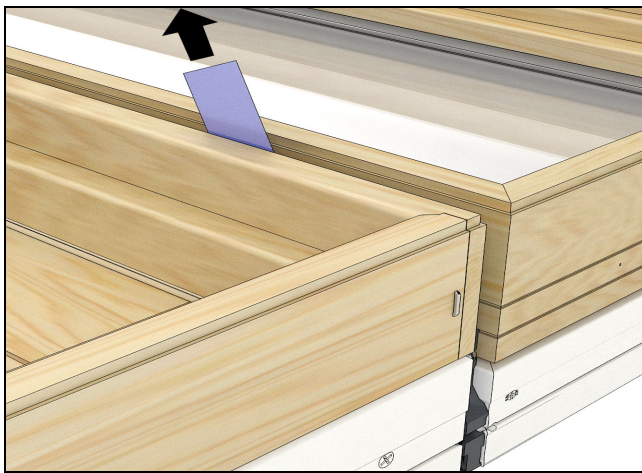


Figure 31

13. Insert 1/2" mull support on top of the MRF between the cavity of the two frames. Ensure the mull support is flush with the interior plane of the unit frames. See Figure 32.

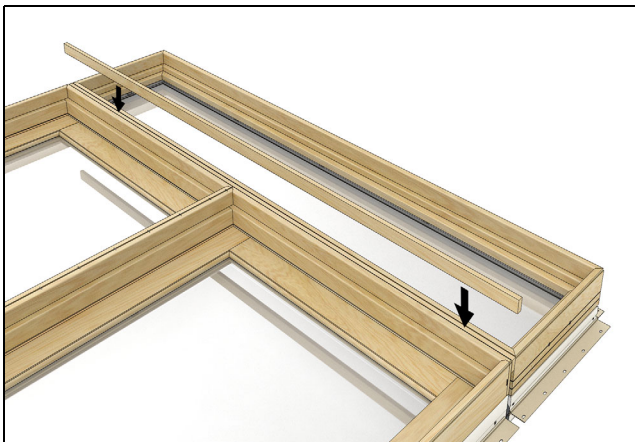


Figure 32

14. Lightly clamp the frames together on interior (use wood blocks to protect interior) near each end to hold the mull units in place. See Figure 33. *NOTE: 2 wide 1 high vertical mull clamping shown. Clamp units together according to the desired configuration.*

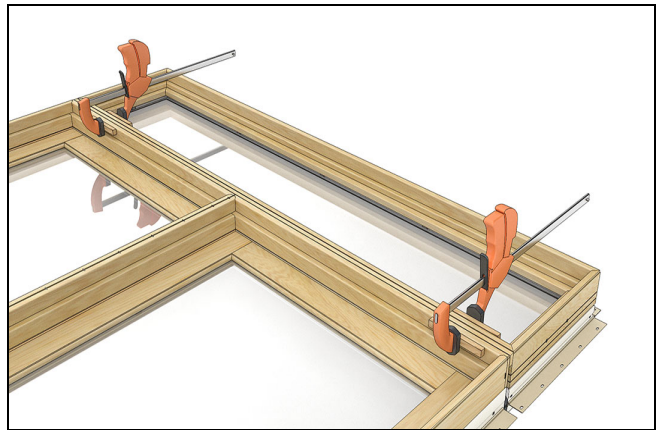


Figure 33

15. Connect the frames to the mull support with two rows of alternatively spaced staples a maximum of 1" from end and 7" on center. See Figure 34.

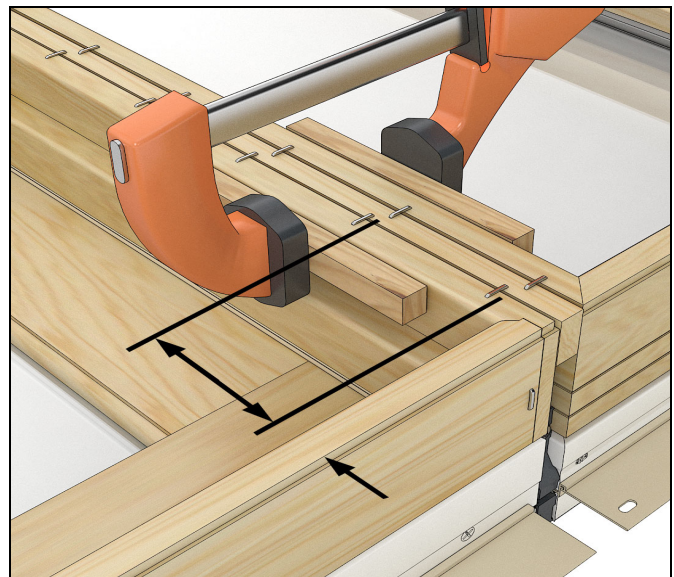


Figure 34

16. Flip unit so exterior side faces upwards. Seat center plug onto mulling pin centered on the mull intersection (if mull joint exits). Repeat for any other mull intersections. See Figure 35.



Figure 35

17. Measure and cut weather strip pieces. Gap between end plugs and weather strip or the center plugs and weather strip should not exceed 1/8". See Figure 36.



Figure 36

18. Fully seat weather strip pieces onto the aluminum mulling pin between all end plugs and center plugs. See Figure 37.



Figure 37

19. Place a piece of clear vinyl tape (or similar) on the frame covering each end plug as shown in Figure 22 and ensure tape overhangs at least 2" on each side of plug. See Figure 38.



Figure 38

20. Inject end plugs and center plug with sealant until squeeze out reaches specified areas. See Figure 39.



Figure 39

21. Notch exterior mull cover to fit over end plugs by 1" +/- 1/4" from end. Notch the cover to fit over center plugs within 1/4" as seen in Figure 40.

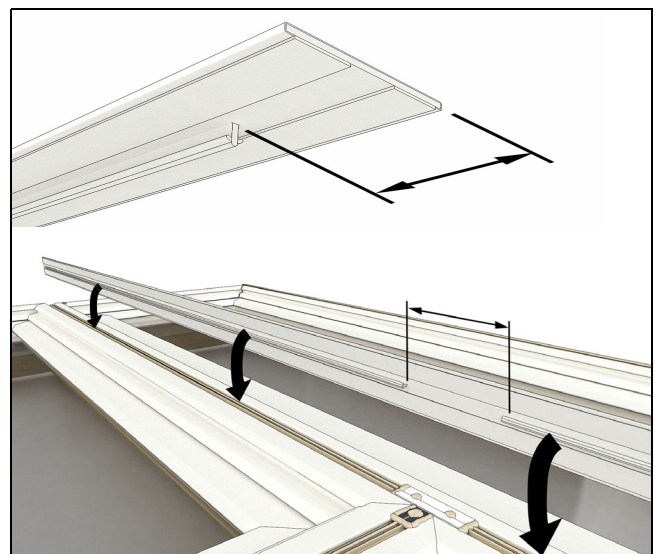


Figure 40

22. Dog ear both pieces of backing on the tape on the exterior cover on one end. Seat exterior mull cover into the mull weather strip. See Figure 41.

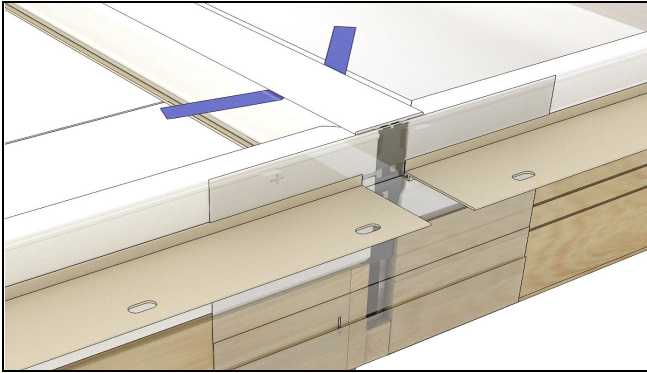


Figure 41

23. Ensure the exterior cover barb is completely seated into the kerf of the weather strip.

24. Completely remove backing from tape on exterior mull cover. Apply even pressure along the entire length of exterior cover ensuring tape is fully adhered and barb is fully seated.

25. Apply continuous drip cap to the header of the assembly. If the entire assembly width is over 96" in length, splice drip cap together in locations offset from the mull joint.

26. Apply nailing fin connector at the jambs centered over the gap between separate nailing fins as needed by removing the paper backing from the connector and pressing into place. Then seal around the edges with sealant as shown. See Figure 42.

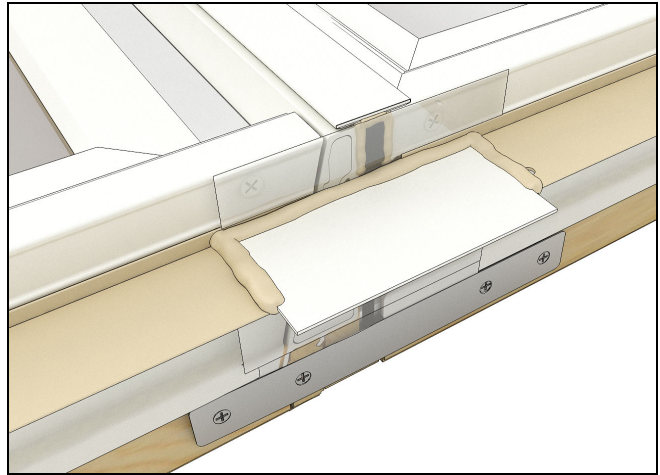
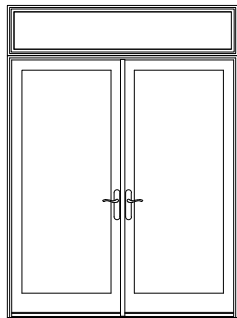


Figure 42

27. If applicable, jamb extensions can now be installed. Follow installation instructions for installing unit into rough or masonry opening. *NOTE: Interior mull trim should be applied only after unit is completely installed and interior trim is applied.*

Mulling- Horizontal Continuous Mullion on a 6 9/16" or 6 13/16" ELIFD Assembly (Direct Glaze, 6 9/16" Inswing French Door, 6 13/16" Inswing French Door)



If assembly is 1 wide, proceed to step 2. If the assembly is 2 wide, vertical mullions must be assembled first, and they will be frame-frame mullions.

Refer to the Elevate Inswing/Outswing Door Mullion Kit Instructions – Vertical mulling procedures for instruc-

tions on how to mull the doors together.

Refer to the Elevate Inswing/Outswing Door Mullion Kit Instructions – Multiple Wide Transom Over Swinging Door procedures for mulling direct glaze units together.

Once vertical mullions are assembled, proceed to step 2.

28. Remove and discard all shipping material. Inspect the unit to ensure it is the right size, color, etc. and that there is no damage. If you find a discrepancy with your windows/doors, contact your local Marvin representative and provide them with the customer service number located in one of the corners of the glass. See Figure 43.



Figure 43

29. Remove and set aside all screens and loose hardware. Lay frames on a flat surface in the desired mulling configuration (interior, wood side facing up). Remove nailing fin from the head jams and sills that will be mulled together. See Figure 44. *NOTE: Picture shows all nailing fins removed. Only remove nailing fins on jambs/sills that will be mulled together, and any head jamb that will need a continuous drip cap after being mulled together.*

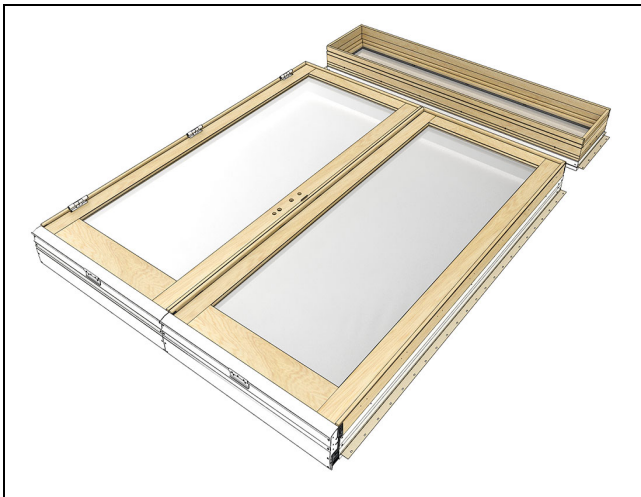


Figure 44

30. **FRAME TO FRAME MULLS:** Apply sealant in nailing fin kerf across mull and down the mull intersection to the exterior face as shown in Figure 45.



Figure 45

31. Insert one aluminum mulling pin into the kerf of the sill of the upper unit(s). Ensure Mulling pin is roughly $\frac{3}{4}$ " from either edge of the unit(s). See Figure 46.



Figure 46

32. Insert the remaining mulling pin into the lower unit(s), in the opposite orientation as the first pin (IE. Hook facing up versus facing down) and place roughly $\frac{3}{4}$ " off the edges of the frame. See Figure 47.



Figure 47

33. Install the correct jamb extension to the sill of the Direct Glaze unit. The jamb extension should be flush with the exterior of the frame and it should not overhang. See Figure 48. (If it overhangs, rip piece until it is flush).



Figure 48

34. Snap the frames together by interlocking the mull pins. Ensure that the pins are seated correctly and the interior unit faces are flush. See Figure 49



Figure 49

35. Peel back the backing on the tape and dog-ear it, exposing the tape by 2". See Figure 50.

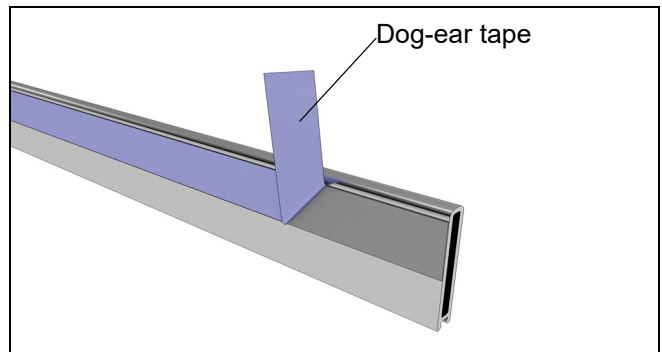


Figure 50

36. Slide the MRF onto the mull pins ensuring the mull pins fit fully into the MRF kerf. See Figure 51.



Figure 51

37. Insert the end plugs into each end of the mull into the MRF. Ensure that the end plug is fully seated into the MRF, the end plug is flush with the end of the frame and the end plug is flush with the exterior face of the units. *NOTE: The MRF may need to be shifted slightly to allow for precise placement.* See Figure 52.



Figure 52

38. Screw #8 x 1 3/4" provided fasteners into the end plugs. See Figure 53.



Figure 53

39. Ensure all components are aligned and then completely pull out tape backing. See Figure 54.



Figure 54

40. Insert 6 9/16" ELIFD mull support on top of the MRF between the cavity of the two frames. Ensure the mull support is flush with the interior plane of the unit frames. See Figure 55.

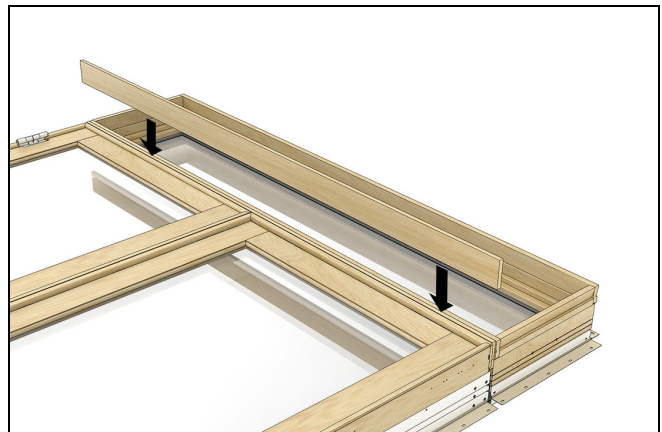


Figure 55

41. Lightly clamp the frames together on interior (use wood blocks to protect interior) near each end to hold the mulled units in place. See Figure 56. *NOTE: 2 wide 1 high vertical mull clamping shown. Clamp units together according to the desired configuration.*

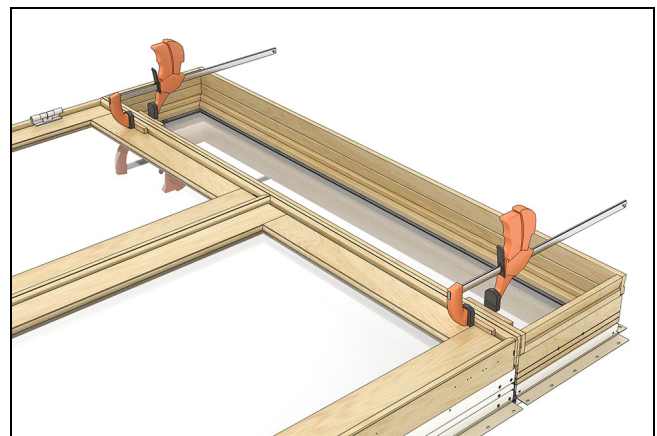


Figure 56

42. Connect the frames to the mull support with two rows of alternatively spaced staples a maximum of 1" from end and 7" on center. See Figure 57.

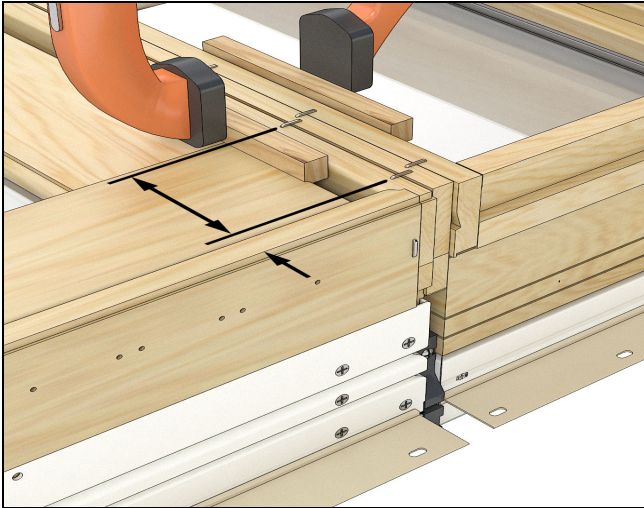


Figure 57

43. Flip unit so exterior side faces upwards. Seat center plug onto mulling pin centered on the mull intersection. Repeat for any other mull intersections. See Figure 58.



Figure 58

44. Measure and cut weather strip pieces. Gap between end plugs and weather strip or the center plugs and weather strip should not exceed 1/8". See Figure 59.



Figure 59

45. Fully seat weather strip pieces onto the aluminum mulling pin between all end plugs and center plugs. See Figure 60.



Figure 60

46. Place a piece of clear vinyl tape (or similar) on the frame covering each end plug and ensure tape overhangs at least 2" on each side of plug. See Figure 61.

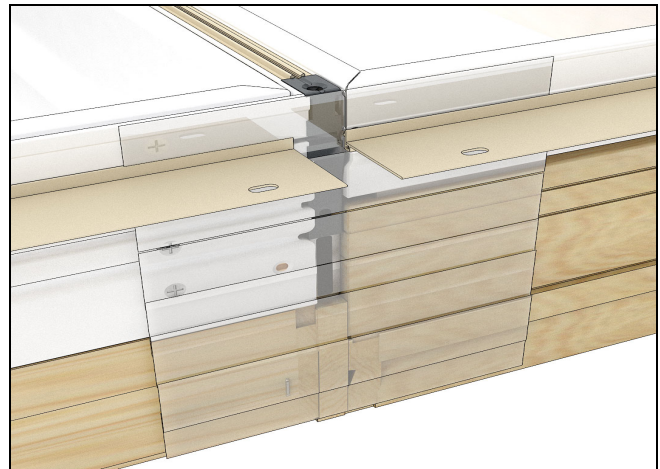


Figure 61

47. Inject end plugs and center plug with sealant until squeeze out reaches specified areas. See Figure 62.

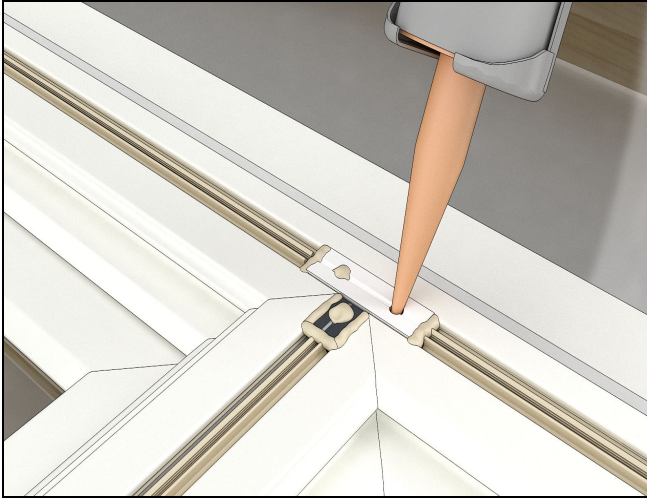


Figure 62

48. Notch exterior mull cover to fit over end plugs by 1" +/- 1/4" from end. Notch the cover to fit over center plugs within 1/4" as seen in Figure 63.

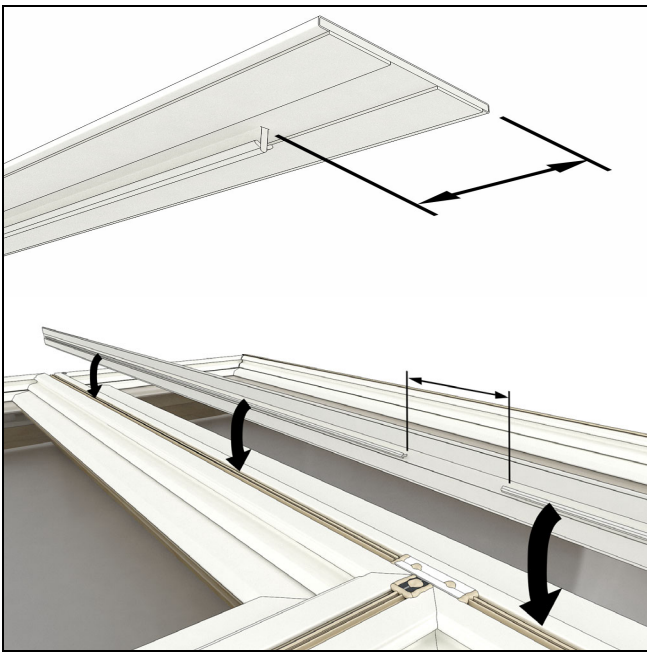


Figure 63

49. Ensure exterior surfaces of frames are clean and dry for optimum tape adhesion. Dog ear both pieces of backing on the tape on the exterior cover on one end. Seat exterior mull cover into the mull weather strip. See Figure 64. Ensure exterior cover barb is completely seated into the kerf of the weather strip.

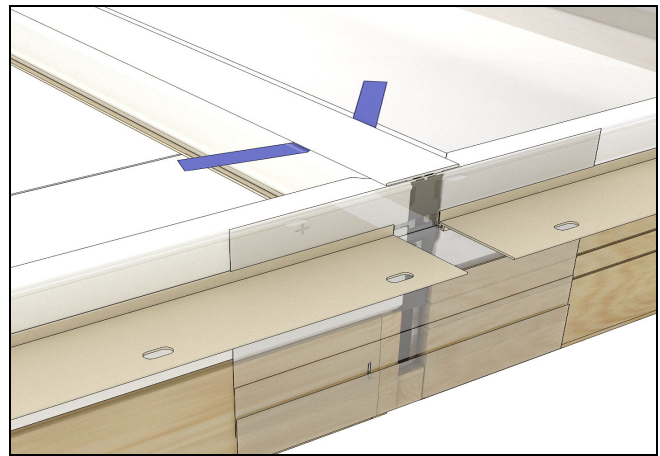


Figure 64

50. Completely remove backing from tape on exterior mull cover. Apply even pressure along the entire length of exterior cover ensuring tape is fully adhered and barb is fully seated.

51. Apply nailing fin connector at the jambs centered over the gap between separate nailing fins as needed by removing the paper backing from the connector and pressing into place. Then seal around the edges with sealant as shown. See Figure 65.

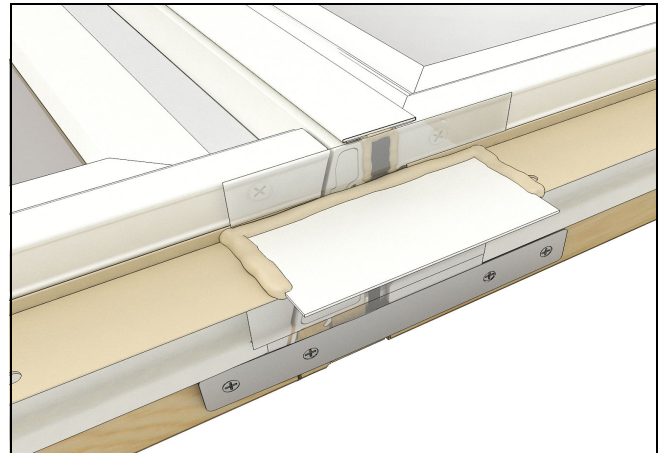


Figure 65

52. Follow installation instructions for installing unit into rough or masonry opening. *NOTE: Interior mull trim should be applied only after unit is completely installed and interior trim is applied.*