

ABSTRACT: These instructions are intended to be used in the event that installation holes were not pre-drilled at the factory. **DO NOT** install the unit prior to drilling holes.

Tools and Supplies Needed	
Safety glasses	Hammer
Pencil	Power drill
Tape measure	Putty knife (optional)
3/4" Brad nails	5/16" and 3/8" Drill bits
4" x 3/16" Drill bit	

NOTE: Numbers listed in parentheses () are metric equivalents in millimeters rounded to the nearest whole number.

Hole Spacing Chart

Use this chart as a reference for proper installation hole spacing:

Product	Jamb Spacing	Head Jamb Spacing
Casement, Awning, Picture, and Transom (Including IZ3)	1 13/16" (46) from head jamb stop and 1 1/4"(32) from top of the sill stop. Units with a frame height larger than 39" (991) need additional hole at center.	2 3/16"(55) from jamb stop on each end. Units with a frame width larger than 36" (914) need additional hole at center.
Casement & Awning IZ3 Mulls (includes Picture and Transom) <i>NOTE: Casement Operators cannot be mulled above another unit for IZ3 Thru-Jamb installation.</i>	Additional holes at 13/16" (21) and 4-5/16" (110) from the head jamb stop, and 1/4" (6) and 3-3/4" (95) from the sill on both sides of every mull.	Additional holes at 13/16" (21) and 4-5/16" (110) from the jamb stop on both sides of every mull.



Tip

When drilling holes on jamb stops, it is recommended to use a folded sheet of paper or putty knife to protect edge of jamb stop wood from drill bit. A flexible drill extension is also recommended. If jamb or header stop pulls away from the frame while drilling, apply additional 3/4"(19) brad nails.

Drilling Holes- Jamb/Head Jamb Stops

1. Mark hole location on wood jamb/head jamb stops using spacing chart (see chart). From the interior edge of jamb/head jamb stop measure 1/2"(13) and mark intersection point of previous dimension. Carefully drill hole at intersection, mark through jamb/header stop *only* using 3/8"(10) drill bit. Center 3/16"(5) drill bit in 3/8"(10) hole and carefully drill through jamb frame. See figure 1, figure 2, and figure 3.

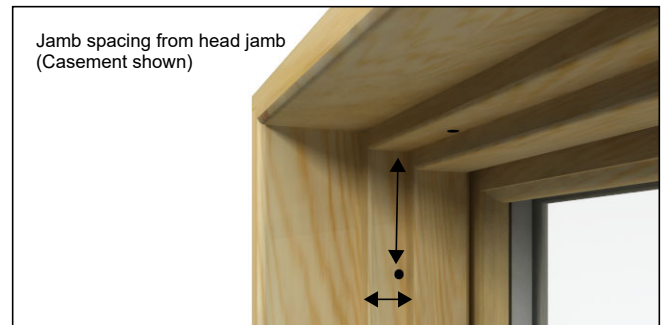


Figure 1

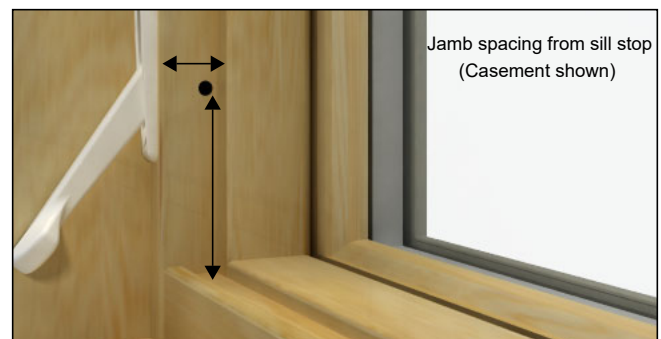


Figure 2

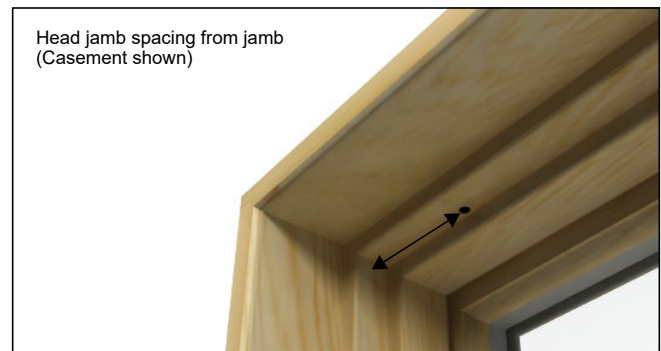


Figure 3

2. Install unit following supplied installation instructions.

Hole Spacing Chart

Use this chart as a reference for proper installation hole spacing:

Product	Jamb Spacing	Head Jamb Spacing
Double Hung & Double Hung IZ3	3 1/16" (78) from top of jamb carrier and 2 3/4" (70) from Ultrex sill. Units require two off center holes 2 1/2" (64) above and below frame center.	3 3/16" (81) from jamb carrier on each end.
Double Hung Picture & Transoms (including IZ3)	3 1/16" (78) from top of jamb carrier and 2 3/4" (70) from sill. If frame height is 35 3/4" (908) or larger, units require off center hole 2 1/2" (64) below frame center. If frame height is larger than 63 3/4" (1619), an additional hole 2 1/2" (64) above frame center is required.	3 3/16" (81) from jamb carrier on each end. Units with a frame larger than 33 1/2" (851) require off center hole 2 1/2" (64) off frame center.
Double Hung IZ3 Mulls (including Double Hung Picture and Transom)	Additional holes 2 1/2" (63) and 6" (152) on both sides of every mull.	Additional holes 2 1/2" (63) and 6" (152) on both sides of every mull.
Two Sash Gliders	3 1/16" (78) from top of jamb carrier and 2 3/4" (70) from sill. If frame height is 35 3/4" (908) or larger, units require off center hole 2 1/2" (64) below frame center.	3 3/16" (81) from jamb carrier on each end. (Additional installation screw are added at stationary sash L- bracket.)
Triple Sash Gliders	3 1/16" (78) from top of jamb carrier and 2 3/4" (70) from sill. If frame height is 35 3/4" (908) or larger, units require off center hole 2 1/2" (64) below frame center.	3 3/16" (81) from top of jamb carrier on each end. (Additional installation screws are added at stationary sash L-bracket.) Units require additional two hole centered between the stationary sash L-brackets.

NOTE: On Double Hung units, remove both sash and parting stop before drilling through jamb holes. On Double Hung Picture and Glider units, remove wood jamb covers before drilling through jambs. Do not remove the sill stop from Double Hung Picture units.



Tip

When drilling holes next to sash wood on Double Hung, Picture and Glider units, it is recommended to use a folded sheet of paper or putty knife to protect sash wood from drill bit.

Drilling Holes-Jamb

1. Mark hole location centered on jamb carrier using spacing chart. Carefully drill marked holes through jamb carrier only using 5/16"(8) drill bit. Center 3/16"(5) drill bit in 5/16"(8) hole and carefully drill through jamb frame. See figure 4 and figure 5.

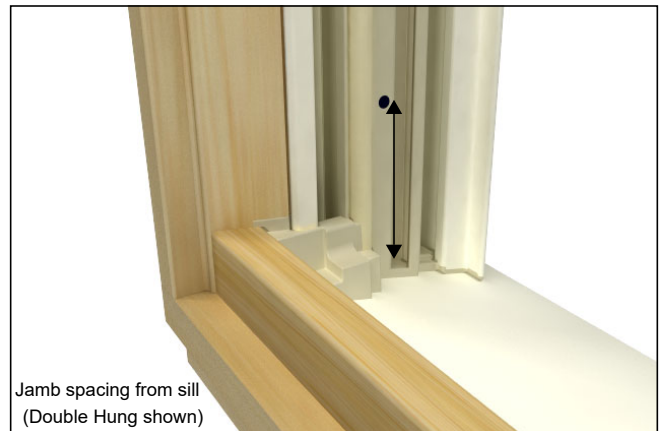


Figure 4



Figure 5

Drilling Holes- Head Jamb

1. Mark hole location centered on head jamb carrier using spacing chart above. On Double Hung units carefully drill marked holes through header frame using 3/16" (5) drill bit. On Double Hung Picture and Glider units, carefully drill marked holes through head jamb carrier **ONLY** using 5/16"(8) drill bit. Center 3/16" (5) drill bit in 5/16"(8) hole and carefully drill through header frame. See figure 6 and figure 7.



Figure 6



Figure 7

2. On triple sash glider units, two additional hole locations will need to be measured and marked centered between the stationary L-bracket hole locations. Follow instructions from step 1 on drilling through the head jamb carrier and through the header frame.
3. Install unit following supplied installation instructions.