

# Installation Guide

for Andersen® 400 Series Casement/Awning Windows with Stormwatch® Protection (High-Performance Impact Resistant or Monolithic Impact Resistant Glass)



**INSTALLER: Please leave this guide with the building owner to file for future reference.**

Congratulations! You have just purchased one of the many fine Andersen® products. Proper assembly, installation and maintenance are essential if the benefits of your Andersen product are to be fully attained. Therefore, please read and follow this Instruction Guide completely. If your abilities do not match this procedure's requirements, contact an experienced contractor. You may direct any questions about this or other products to your local Andersen dealer, found in the Yellow Pages under "Windows" or call Andersen WindowCare® service center at 1-888-888-7020 Monday through Friday, 7 a.m. to 7 p.m. Central Time and Saturday, 8 a.m. to 4 p.m. Central Time. Thank you for choosing Andersen.

## Important Safety, Assembly, and Installation Information

Impact Resistant Glass used by Andersen is not hurricane proof or shatter proof, and may not offer a high level of security. Proper installation of window and door units with impact resistant glass is as important to product performance as the glass. Every assembly and installation is different (windloads, structural support, etc.), and Andersen strongly recommends consultation with an Andersen supplier or an experienced contractor, architect, or structural engineer prior to the assembly and installation of any Andersen product. Andersen has no responsibility in regard to the post-manufactured assembly and installation of Andersen products.

### ⚠ WARNING

Use caution when working at elevated heights and around unit openings. Follow manufacturers' instructions for ladders and/or scaffolding. Failure to do so may result in injury or death.

### ⚠ WARNING

Follow manufacturers' instructions for hand or power tools. Always wear safety glasses. Failure to do so may result in injury and/or product damage.

### ⚠ WARNING

Windows and doors can be heavy. Use safe lifting techniques and a reasonable number of people with enough strength to lift, carry and install window and door products to avoid injury and/or product damage.

### ⚠ WARNING

Unless specifically ordered, Andersen windows and doors are not equipped with safety glass, and if broken, could fragment causing injury. Many laws and building codes require safety glass in locations adjacent to or near doors. Andersen windows are available with safety glass that may reduce the likelihood of injury when broken. Information on safety glass is available from your local Andersen dealer.

### ⚠ CAUTION

- Andersen® Head Flashing and Installation Flanges **DO NOT** take the place of standard window and door flashing. Unit must be properly flashed and sealed for protection against water and air infiltration. Use non-reflective flashings. Highly reflective flashing tapes can raise the surface temperature of the vinyl to the point where vinyl deformation and product damage may occur.
- Do not apply any type of film to glass. Thermal stress conditions resulting in glass damage could occur.
- Use of movable insulating materials such as window coverings, shutters, and other shading devices may damage glass and/or vinyl. In addition, excessive condensation may result causing deterioration of windows and doors.

**⚠ WARNING**

Metal fasteners and other hardware components may corrode when exposed to preservative treated and fire-retardant treated lumber. Obtain and use the appropriate metal fasteners and hardware as called out by the installation guide to fasten unit to any rough opening made from pressure treated and fire-retardant treated lumber. Failure to use the appropriate materials for the installation may cause a failure resulting in injury, property or product damage.

**NOTICE**

- Units must be installed per installation instructions using Jamb Clips or the product will not meet designated performance levels.
- Venting units are packaged with temporary operator/lock handles. Permanent operator/lock hardware is available in various styles and finishes from your local Andersen dealer.
- **DO NOT** apply Extension Jamb's prior to unit installation.

**Parts Included**

- (1) Installation Guide
- (1) Installation Pack  
(Jamb Clips and Screws)

**Options and Accessories**

- Extension Jamb's
- Grilles (Interior and Exterior)
- Andersen® Art Glass Panels
- Glazing Panels
- Auxiliary Casings
- Joining Kits

**Venting Accessories**

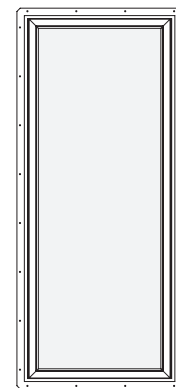
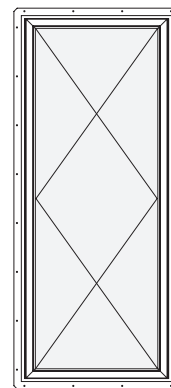
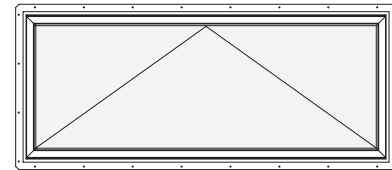
- Hardware Style Packs
- Insect Screens
- Operator Stud Covers

**Additional Parts Sold Separately**

- Drip Cap (full width)

**Tools & Supplies**

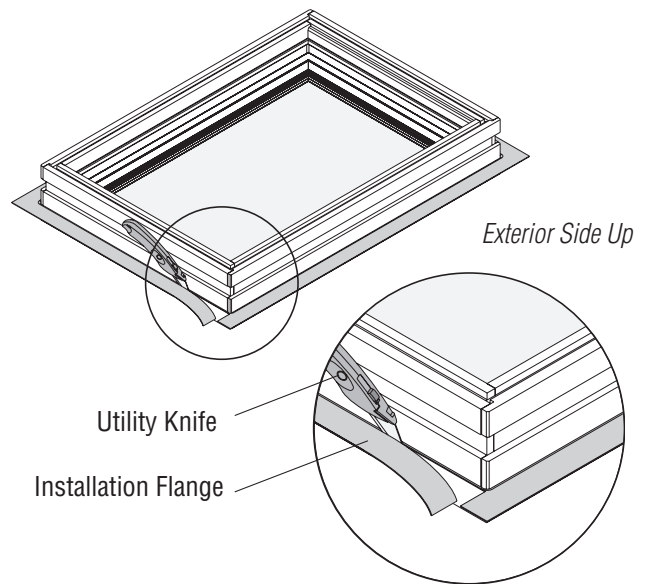
- Safety Glasses
- Tape Measure
- Hammer
- Level
- Shims
- Utility Knife
- Caulk Gun
- 1-3/4" Roofing Nails
- 1-1/2" (4d) Finish Nails
- Drill/Driver
- Phillips Bit
- #8 x 1-1/2" Screws
- Sealant



*Exterior View*

## 1. Prepare Unit

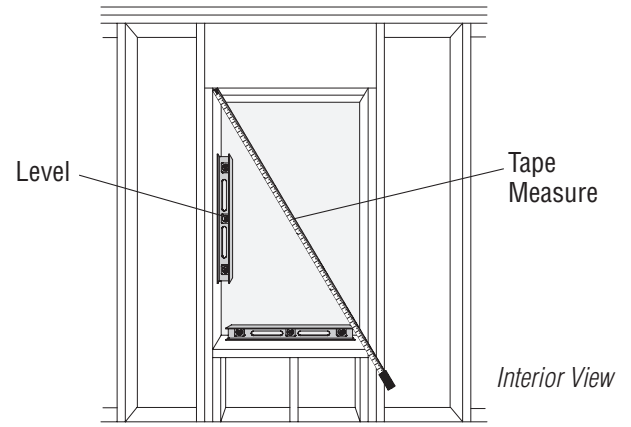
- Remove unit from carton and remove packing blocks.
- Remove package of extension jambs, if included.
- Place unit exterior side up on a clean flat work surface.
- For **Wood Frame** and **Masonry/Buck Construction**, proceed to **Step 2**.
- For **Masonry/Brick Veneer** and **Replacement** (where exterior finish, siding, brick veneer, or stucco is already applied), cut and remove *Installation Flange* from unit using a sharp utility knife, as shown. Proceed to **Step 2**.



Masonry/Brick Veneer and Replacement Only

## 2. Prepare Rough Opening

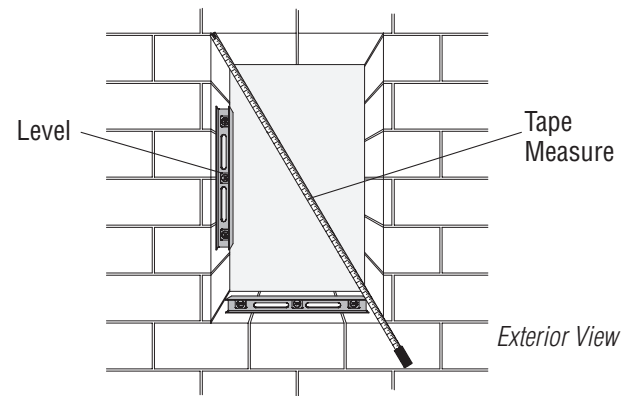
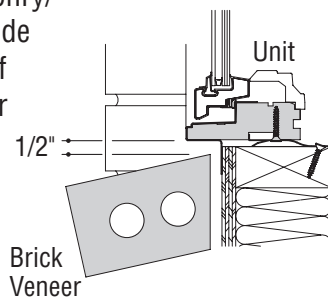
- Prepare rough opening for unit according to dimensions found in the *Andersen® Product Guide*.
- Check sill plate for level. Sill **must** be level. Shim sill plate if necessary.
- Check rough opening for plumb and level. If rough opening is **not** plumb or level, correct as necessary.
- Check opening for square by measuring diagonally, upper left to lower right and upper right to lower left corner. If measurements are within 1/8", opening is square. If rough opening is **not** square, correct as necessary.



Wood Frame/ Buck Construction

### CAUTION

- For installations in masonry/brick veneer walls provide a minimum clearance of 1/2" from top of brick or masonry to the bottom of any portion of sill. Failure to do so could result in product or property damage.



Masonry/Brick Veneer Construction

### 3. Determine Installation Clip Quantity and Location

#### **⚠ WARNING**

Failure to properly anchor using jamb clips will adversely affect design pressure rating, product performance and may result in injury, product and/or property damage.

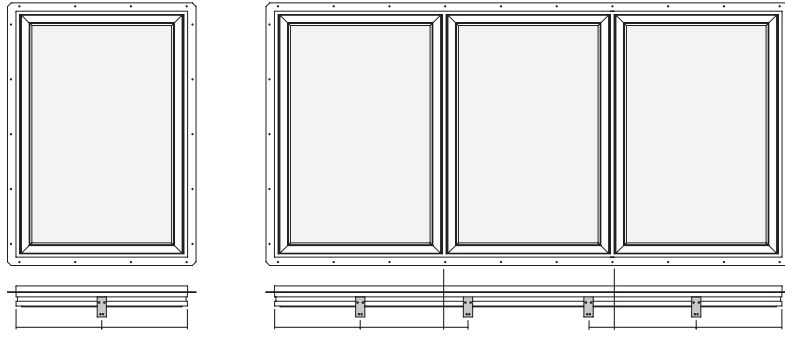
- **For Stock and Custom Size Casement Windows**, determine *Installation Clip* quantity and location based on unit size and location diagrams on **Page 5**.
- **For Stock and Custom Size Awning Windows**, determine *Installation Clip* quantity and location based on unit size and location diagrams on **Pages 6 and 7**.

#### Casement Unit Dimensions

Unit	Width	Height	Unit	Width	Height	Unit	Width	Height
CR12	17"	24 1/8"	CX125	31 1/2"	28 3/8"	C245	48"	52 13/16"
CR125	17"	28 3/8"	CX13	31 1/2"	35 15/16"	C25	48"	59 7/8"
CR13	17"	35 15/16"	CX135	31 1/2"	40 13/16"	C255	48"	64 13/16"
CR135	17"	40 13/16"	CX14	31 1/2"	48"	C26	48"	71 7/8"
CR14	17"	48"	CX145	31 1/2"	52 13/16"	CW22	56 1/2"	24 1/8"
CR145	17"	52 13/16"	CX15	31 1/2"	59 7/8"	CW225	56 1/2"	28 3/8"
CR15	17"	59 7/8"	CX155	31 1/2"	64 13/16"	CW23	56 1/2"	35 15/16"
CR155	17"	64 13/16"	CX16	31 1/2"	71 7/8"	CW235	56 1/2"	40 13/16"
CR16	17"	71 7/8"	CXW13	35 15/16"	35 15/16"	CW24	56 1/2"	48"
CN12	20 1/2"	24 1/8"	CXW135	35 15/16"	40 13/16"	CW245	56 1/2"	52 13/16"
CN125	20 1/2"	28 3/8"	CXW14	35 15/16"	48"	CW25	56 1/2"	59 7/8"
CN13	20 1/2"	35 15/16"	CXW145	35 15/16"	52 13/16"	CW255	56 1/2"	64 13/16"
CN135	20 1/2"	40 13/16"	CXW15	35 15/16"	59 7/8"	CW26	56 1/2"	71 7/8"
CN14	20 1/2"	48"	CXW155	35 15/16"	64 13/16"	CX23	62 3/4"	35 15/16"
CN145	20 1/2"	52 13/16"	CXW16	35 15/16"	71 7/8"	CX235	62 3/4"	40 13/16"
CN15	20 1/2"	59 7/8"	CR23	33 3/4"	35 15/16"	CX24	62 3/4"	48"
CN155	20 1/2"	64 13/16"	CR235	33 3/4"	40 13/16"	CX245	62 3/4"	52 13/16"
CN16	20 1/2"	71 7/8"	CR24	33 3/4"	48"	CX25	62 3/4"	59 7/8"
C12	24 1/8"	24 1/8"	CR245	33 3/4"	52 13/16"	CN32	61"	24 1/8"
C125	24 1/8"	28 3/8"	CR25	33 3/4"	59 7/8"	CN325	61"	28 3/8"
C13	24 1/8"	35 15/16"	CR255	33 3/4"	64 13/16"	CN33	61"	35 15/16"
C135	24 1/8"	40 13/16"	CR26	33 3/4"	71 7/8"	CN335	61"	40 13/16"
C14	24 1/8"	48"	CN22	40 3/4"	24 1/8"	CN34	61"	48"
C145	24 1/8"	52 13/16"	CN255	40 3/4"	28 3/8"	CN345	61"	52 13/16"
C15	24 1/8"	59 7/8"	CN23	40 3/4"	35 15/16"	CN35	61"	59 7/8"
C155	24 1/8"	64 13/16"	CN235	40 3/4"	40 13/16"	C32	71 7/8"	24 1/8"
C16	24 1/8"	71 7/8"	CN24	40 3/4"	48"	C325	71 7/8"	28 3/8"
CW12	28 3/8"	24 1/8"	CN245	40 3/4"	52 13/16"	CXW23	71 5/8"	35 15/16"
CW125	28 3/8"	28 3/8"	CN25	40 3/4"	59 7/8"	CXW235	71 5/8"	40 13/16"
CW13	28 3/8"	35 15/16"	CN255	40 3/4"	64 13/16"	CXW24	71 5/8"	48"
CW135	28 3/8"	40 13/16"	CN26	40 3/4"	71 7/8"	CXW245	71 5/8"	52 13/16"
CW14	28 3/8"	48"	C22	48"	24 1/8"	C33	71 7/8"	35 15/16"
CW145	28 3/8"	52 13/16"	C225	48"	28 3/8"	C335	71 7/8"	40 13/16"
CW15	28 3/8"	59 7/8"	C23	48"	35 15/16"	C34	71 7/8"	48"
CW155	28 3/8"	64 13/16"	C235	48"	40 13/16"	C345	71 7/8"	52 13/16"
CW16	28 3/8"	71 7/8"	C24	48"	48"	C35	71 7/8"	59 7/8"

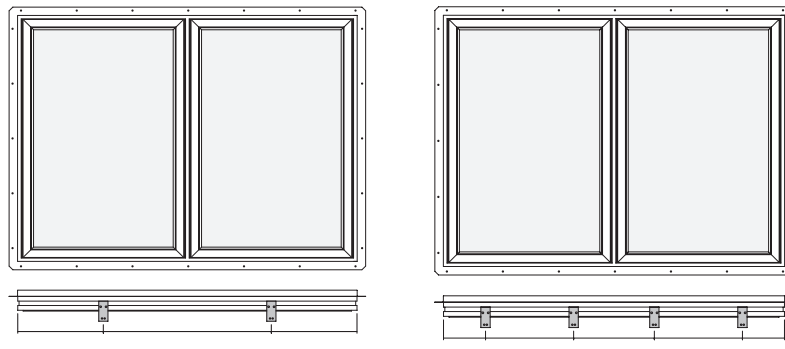
### 3. Determine Installation Clip Quantity and Location (continued)

#### Casement Installation Clip Locations



CR, CN, C, CW, CX, CXW Single Units

CR, CN, C, CW Triple Units

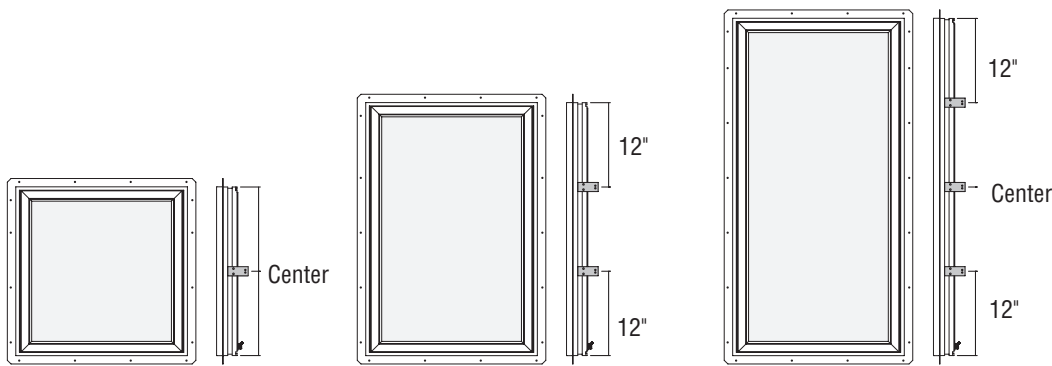


Center of each unit  
CR, CN, C, CW Double Units

6" 20" 20" 20" 6"  
CX, CXW Double Units

*Short Jamb Clips Shown*

#### Casement Head and Sill Installation Clip Locations



Height 28 3/8" to 48"

Height 48 1/8" to 71 7/8"

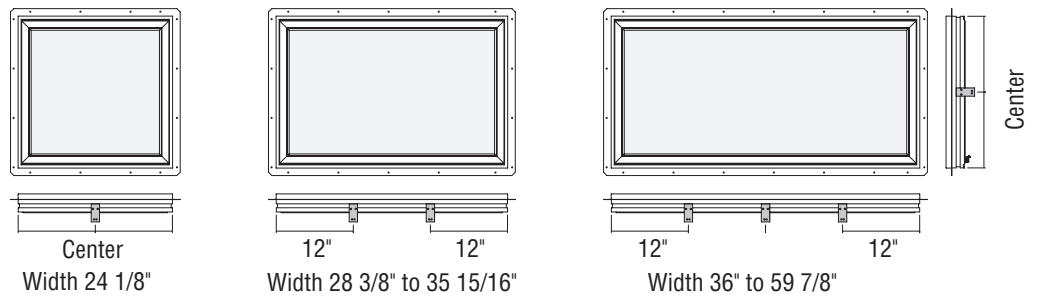
#### Casement Side Installation Clip Locations

### 3. Determine Installation Clip Quantity and Location (continued)

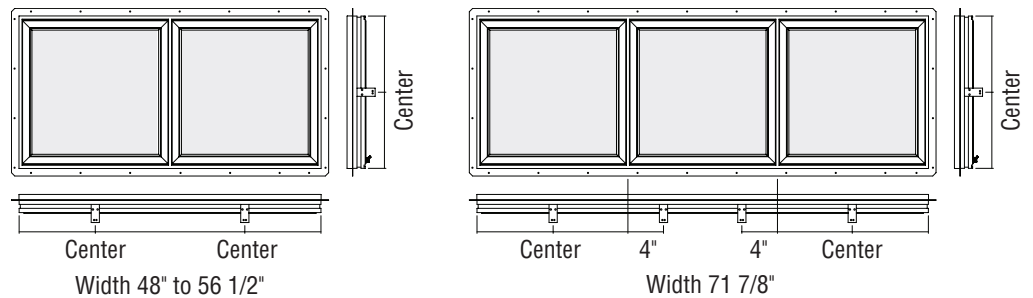
#### Awning Unit Dimensions

Unit	Width	Height
AR21	24 1/8"	17"
AN21	24 1/8"	20 1/2"
A21	24 1/8"	24 1/8"
AW21	24 1/8"	28 3/8"
A212	24 1/8"	48"
AR251	28 3/8"	17"
AN251	28 3/8"	20 1/2"
A251	28 3/8"	24 1/8"
AW251	28 3/8"	28 3/8"
AX251	28 3/8"	31 1/2"
AR281	31 1/2"	17"
AN281	31 1/2"	20 1/2"
A281	31 1/2"	24 1/8"
AW281	31 1/2"	28 3/8"
AX281	31 1/2"	31 1/2"
AR31	35 15/16"	17"
AN31	35 15/16"	20 1/2"
A31	35 15/16"	24 1/8"
AW31	35 15/16"	28 3/8"
AX31	35 15/16"	31 1/2"
A312	35 15/16"	48"
AR351	40 13/16"	17"
AN351	40 13/16"	20 1/2"
A351	40 13/16"	24 1/8"
AW351	40 13/16"	28 3/8"
AX351	40 13/16"	31 1/2"
AR41	48"	17"
AR221	48"	17"
AN41	48"	20 1/2"
AN221	48"	20 1/2"
A41	48"	24 1/8"
A221	48"	24 1/8"
AW41	48"	28 3/8"
AW221	48"	28 3/8"
AX41	48"	31 1/2"
AR451	52 13/16"	17"
AN451	52 13/16"	20 1/2"
A451	52 13/16"	24 1/8"
AW451	52 13/16"	28 3/8"
AX451	52 13/16"	31 1/2"
AR2251	56 1/2"	17"
AN2251	56 1/2"	20 1/2"
A2251	56 1/2"	24 1/8"
AW2251	56 1/2"	28 3/8"
AX2251	56 1/2"	31 1/2"
AR51	59 7/8"	17"
AN51	59 7/8"	20 1/2"
A51	59 7/8"	24 1/8"
AW51	59 7/8"	28 3/8"
AX51	59 7/8"	31 1/2"
AR321	71 7/8"	17"
AN321	71 7/8"	20 1/2"
A321	71 7/8"	24 1/8"
AW321	71 7/8"	28 3/8"

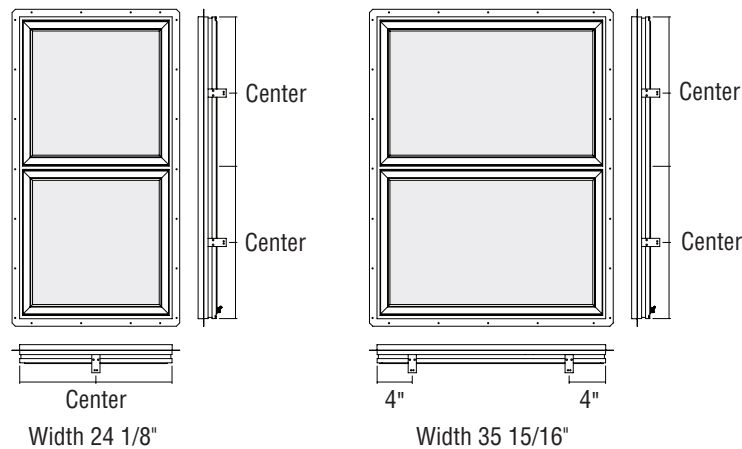
#### Awning Jamb Clip Locations



#### Awning Single Units Head, Sill, and Side Installation Clip Locations



#### Awning Double and Triple Wide Units Head, Sill, and Side Installation Clip Locations

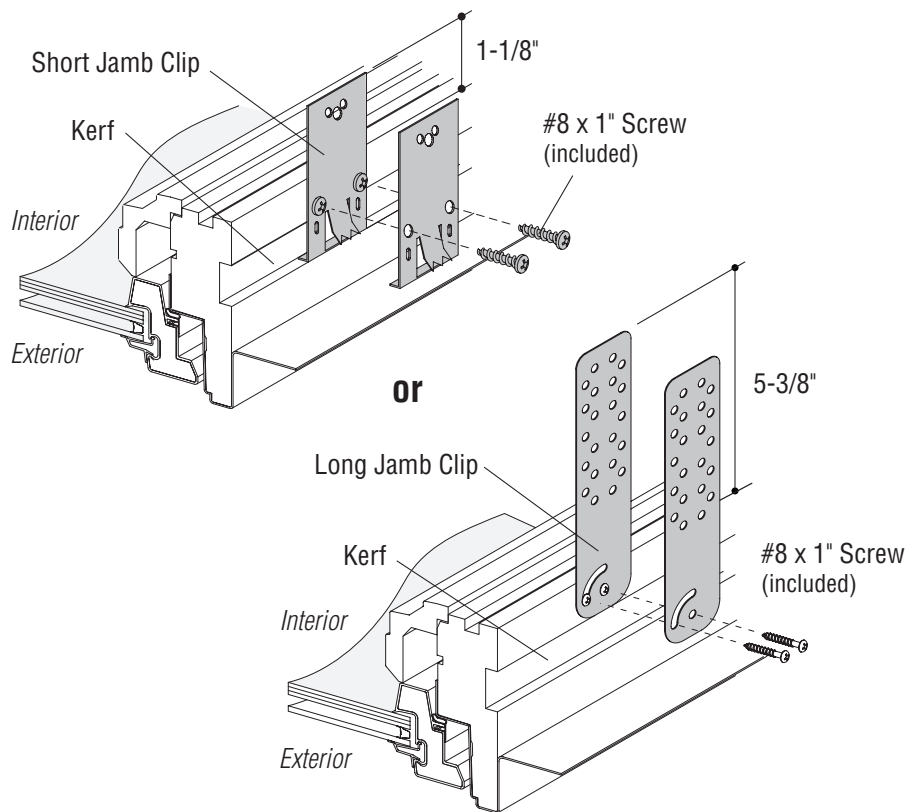


#### Awning Double High Units Head, Sill, and Side Installation Clip Locations

Short Jamb Clips Shown

#### 4. Apply Jamb Clips

- Determine *Jamb Clip* quantity and location based on unit size from pages 4-6.
- Position *Jamb Clips* as shown; Place short jamb clips in kerf on back side of jamb with long leg to the interior, extending 1-1/8" above jambs. Place long jamb clips 5-3/8" above jambs.
- Fasten jamb clips to unit using two (2) #8 x 1" Screws (included).



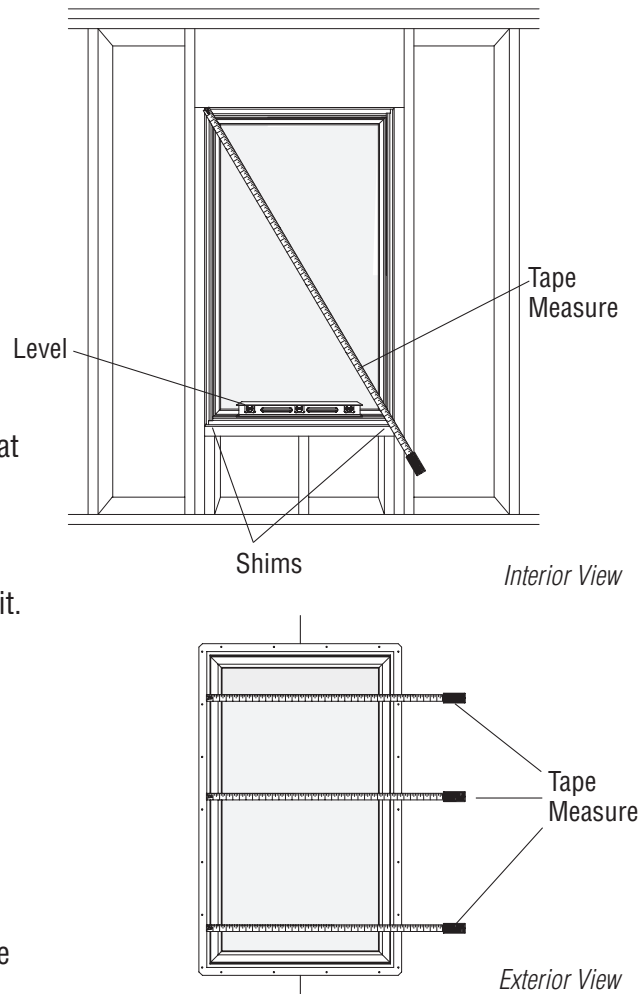
#### 5. Install Window Unit

- Apply a 1/4" bead of sealant to backside of *Installation Flange* if flanges are used.

### ⚠ WARNING

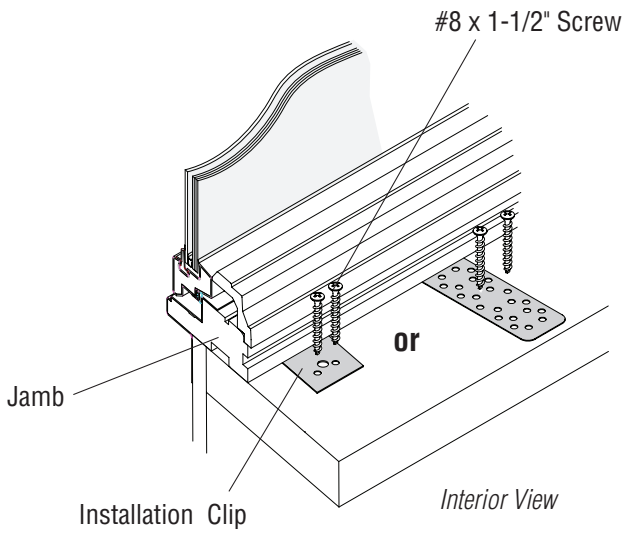
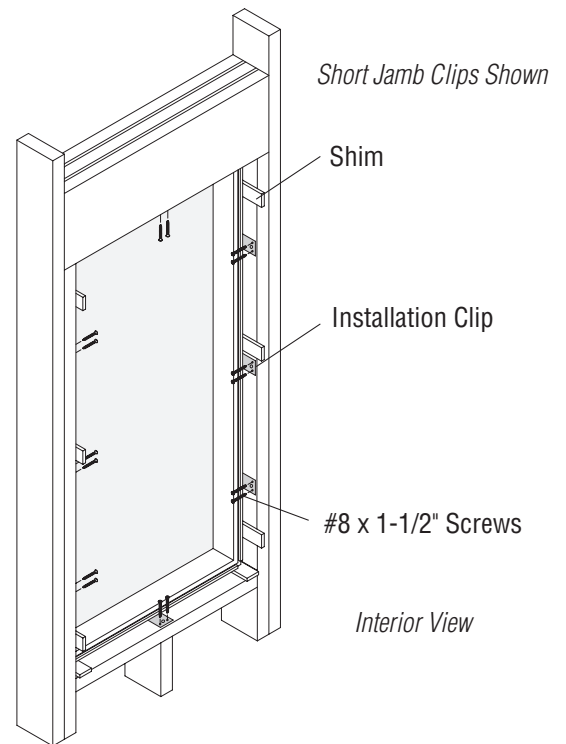
Windows and doors can be heavy. Use safe lifting techniques and a reasonable number of people with enough strength to lift, carry and install window and door products to avoid injury and/or product damage.

- Lift unit into rough opening from the exterior supporting unit at all times until fully secured. Center units in opening.
- Shim at quarter points between unit and rough opening on all sides to keep unit plum, level and square. Shim at corners of sill under *Side Jambs*, from the interior, to level and center unit.
- Measure diagonally across window, upper left to lower right and upper right to lower left corners. If measurements are within 1/8", unit is square. If unit is not square, correct as necessary.
- Measure across head, center, and sill of the window unit. Center dimensions should match head and sill dimensions. Shim or block to straighten *Side Jamb* if necessary. Insert shims at midpoint behind *Side Jamb*, between unit frame and rough opening. Insert and fasten shims every 18" on lock side of venting units.

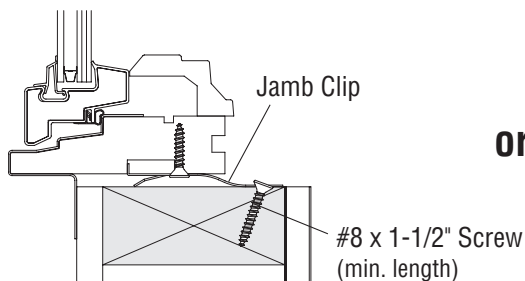
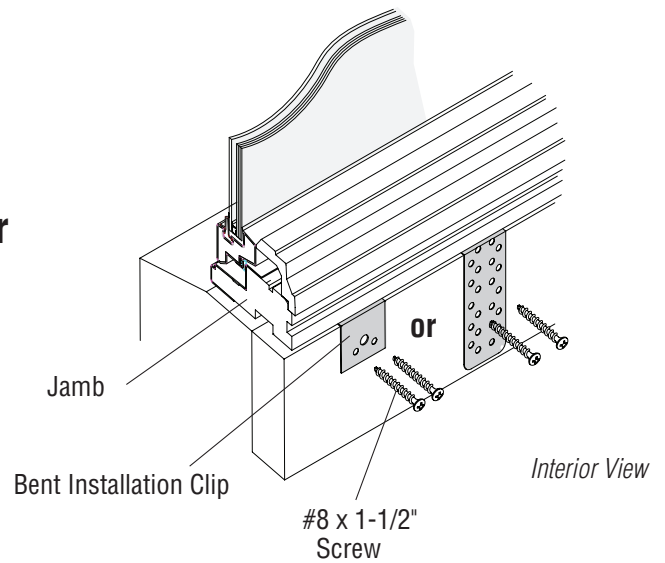


**6. Secure Unit**

- Bend *Installation Clips* if needed.
- Fasten unit to rough opening through *Jamb Clips* using two (2) #8 x 1-1/2" screws per *Jamb Clip*.

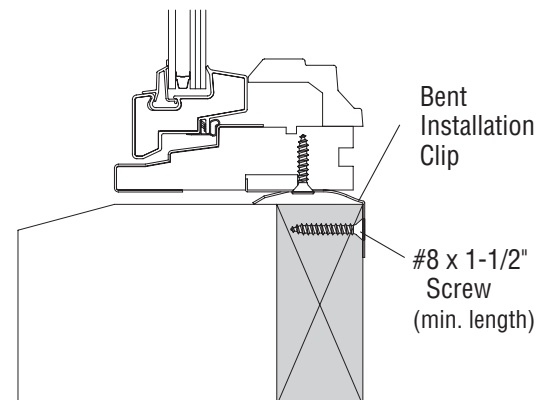


or



**Cross Section Detail**

or



**Cross Section Detail - Bent Installation Clip**



## 7. Apply Flashing Tape

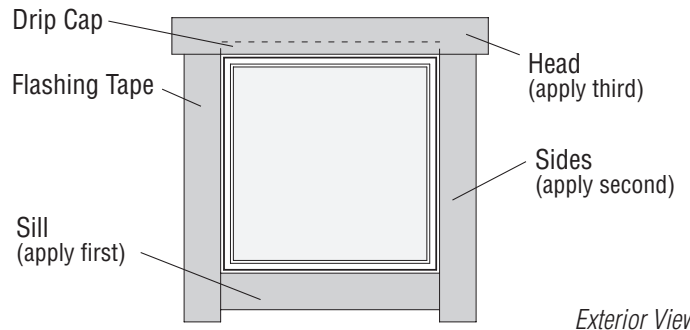
### CAUTION

Unit must be properly flashed and sealed for protection against water and air infiltration. Use non-reflective flashings. Highly reflective flashing tapes can raise the surface temperature of the vinyl to the point where vinyl deformation and product damage may occur.

### NOTICE

- This instruction step depicts one of many options for proper flashing.
- Moisture infiltration problems in any type of building can be reduced by properly flashing and/or sealing around all building openings, including windows and doors. Proper flashing under and around window and door openings can reduce moisture problems, but the performance of any building system depends upon the design and construction of the building system in its entirety, which should address local environment, climate, building codes and product and material limitations. The design and installation of flashing and sealing systems are the responsibility of the architect, contractor, installer, and/or the manufacturer of the building exterior specified for the project.

- Apply *Drip Cap* (full width).
- Apply flashing tape over *Installation Flange* at sill.
- Apply flashing tape over *Installation Flange* at sides, overlapping flashing tape at sill.
- Apply flashing tape over *Installation Flange* at head, overlapping flashing tape at sides.

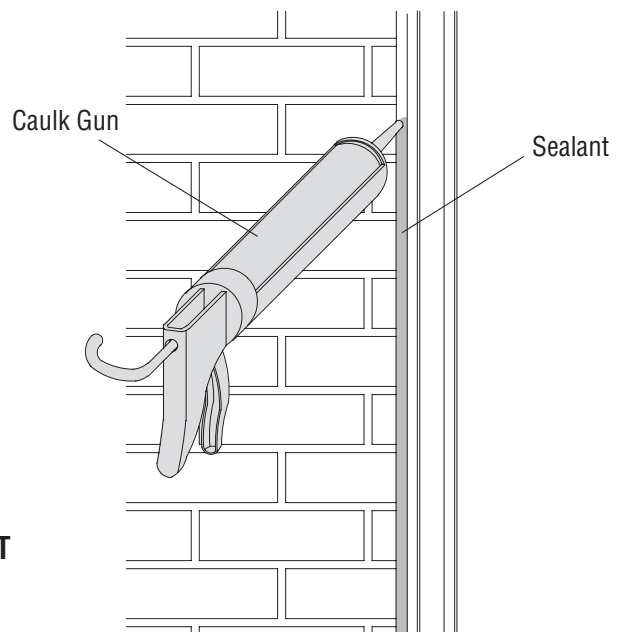


Exterior View

## 8. Insulate and Seal Unit

### CAUTION

- When insulating between unit frame and rough opening, **DO NOT** over pack batt insulation or overfill with expandable foam. Bowed jambs may result causing product performance problems and/or incorrect operation of unit.
- A minimum space of 1/4" is required around exterior perimeter of unit between the frame and exterior finish material to allow for material expansion.
- Masonry/Brick Veneer installations require a minimum 1/2" space along the sill and 1/4" space around remaining perimeter to allow for settling and expansion.



Exterior View

- Insulate between frame and rough opening on all sides. **DO NOT** over pack or overfill with insulation; bowed jambs may result.
- Clean and prime around outside of unit where sealant will be applied. Apply backer rod and sealant around exterior perimeter of window after siding (or other finish) is applied.

## Finishing, Cleaning, and Maintenance Instructions

### CAUTION

- **DO NOT** expose unfinished wood to high moisture conditions, excessive heat or humidity. Finish interior wood surfaces immediately after installation. Unfinished wood surfaces will discolor, deteriorate, and/or may bow and split.
- **DO NOT** stain or paint weatherstrip, silicone beads, vinyl, glass, or hardware. Damage to product may occur and unit operation may be impaired.
- Acid solutions used to wash masonry/concrete will damage glass, fasteners, hardware, and metal flashing. If these solutions are used, follow the acid solution manufacturer's instructions carefully. Protect and/or cover Andersen products during the cleaning process to prevent acid contact. If acid does come in contact with unit, immediately wash all surfaces with clean water.

### INTERIOR FINISHING

**Read and follow finishing manufacturer's instructions and warnings on each container of finish material for priming, painting, staining, and varnishing.**

### CLEANING

Clean exterior frame, sash members, and insect screens using a mild detergent-and-water solution and a soft cloth or brush. **DO NOT** use abrasive cleaners or solutions containing corrosive solvents. For persistent dirt or grime, use a nonabrasive cleanser or a mixture of water and alcohol or ammonia.

### MAINTENANCE

Immediately sand and refinish any interior wood that becomes stained or mildewed to prevent further discoloration and/or damage. For further information, contact your local Andersen dealer. Dealers can be found in the Yellow Pages under Windows.