

**ORDERING WARRANTY REPLACEMENT GLASS, SASH, OR PATIO DOOR PANEL**

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Correct measurements and details are important when ordering a warranty replacement *sash*\*/*panel*\* or glass for a window or patio door. For non-warranty glass replacement, please contact your local glass shop. While some of this information will be helpful to the glass shop, they can advise you of the information they need.

Examine for a serial number etched into the glass similar to the one shown in the chart below. With this number, we can easily identify your product, and there will be no need for you to supply further details. If your product does not have a serial number, please continue with these instructions.

Examine your product purchase paperwork (invoice, receipt, etc.) for measurements and details. If you do not have paperwork, refer to this guide for measurement instructions and product details. Fill out the *Caradco Collection Characteristics Form* on the last page and provide to your dealer when ordering. Include any templates or pictures if necessary.

If ordering from us, mail to: Warranty Service Department; JELD-WEN Caradco Collection; 201 Evans Road; Rantoul, IL 61866.

For measuring assistance or details not covered here, call a service technician.

All *italicized* words with an asterisk (\*) are defined in *Word Definitions*.

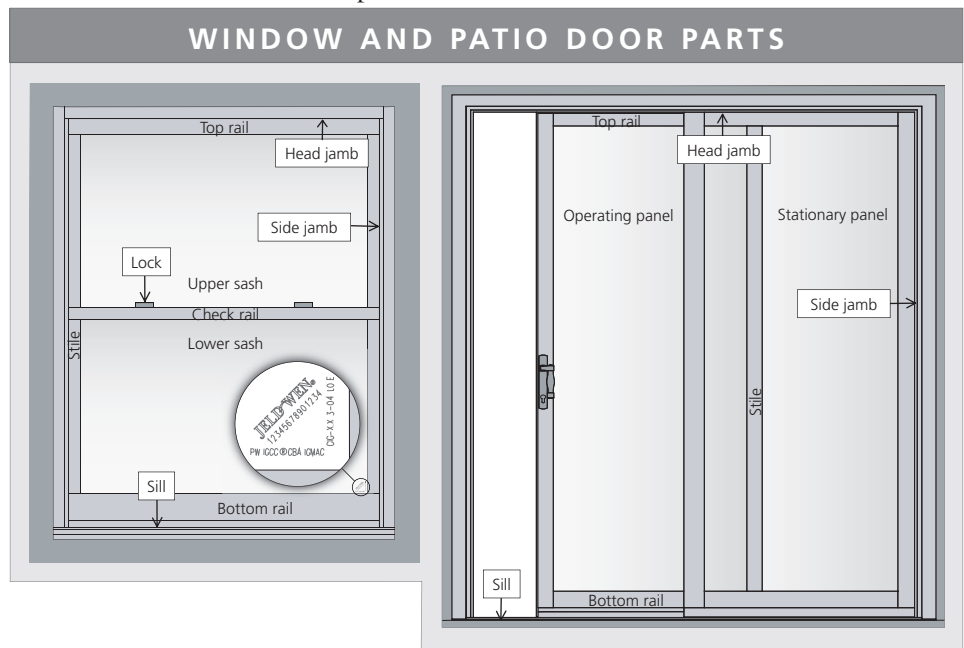
**MATERIALS**

- Tape measure
- Pencil
- Duct tape (for cracked glass)
- Appropriate safety equipment and clothing

**Do-It-Yourself**

**Technician**

The advice offered herein can be done by a homeowner with some mechanical aptitude. If you are unsure, it is recommended that you hire a trained service provider such as a competent and licensed construction contractor or building professional. JELD-WEN disclaims any and all liability associated with the use and/or provision of these instructions. Any reliance upon the information or advice is at the risk of the party so relying. The information contained herein may be changed from time to time without notification.



## SAFETY

- Use extreme caution when measuring glass (especially broken glass). Glass edges are sharp.
- If glass is cracked, cover cracks with duct tape to minimize further breakage and serious injury.

## DAYLIGHT OPENING MEASUREMENT

A *daylight opening\** measurement is the width and height of the glass in a window or patio door.

*Note: For accuracy, if necessary, remove insect screen and/or window treatments (curtains, blinds, etc.).*

### Standard Rectangular Windows

Measure daylight opening as follows:

- Measure glass from wood edge to wood edge, clad to clad, or frame to frame. Specify if measuring the interior or exterior.
- For windows with *divided lites\**, measure over the *grille\**.

### Geometric Shape Windows

See *Measuring Geometric Shapes*.

## SASH MEASUREMENT

Sash measurement is necessary when replacing the entire sash. Always measure the sash exterior.

For a non-removable sash,

- Measure sash width and height on the exterior side.

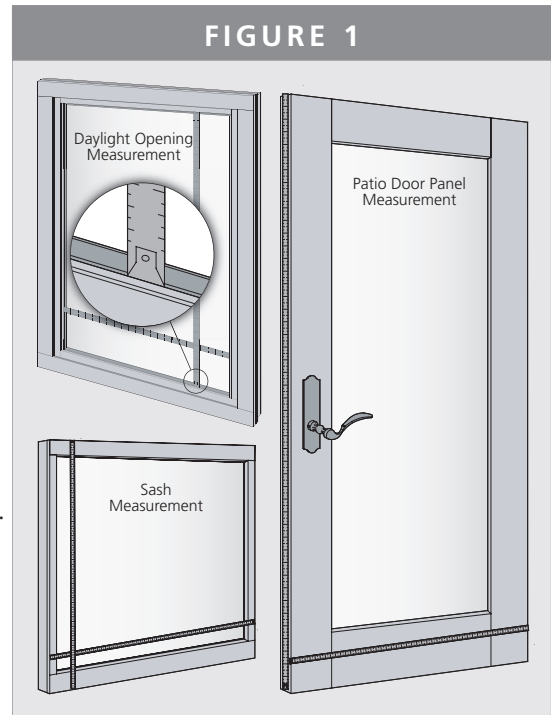
For a removable sash,

- Remove, then measure sash width and height on the exterior side.

## PATIO DOOR PANEL MEASUREMENT

*Note: These measurements can be done from the interior or the exterior.*

- Measure daylight opening as explained in Daylight Opening Measurement.
- Measure panel height and width.



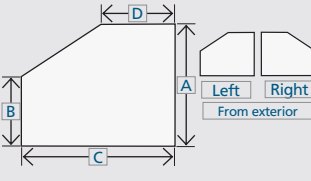
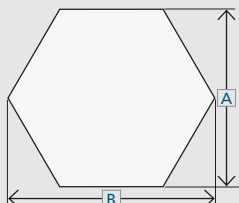
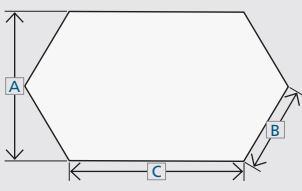
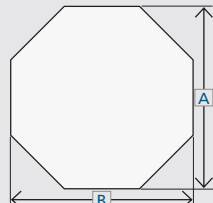
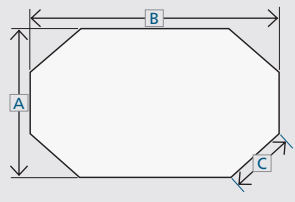
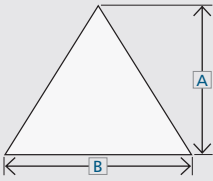
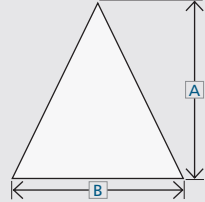
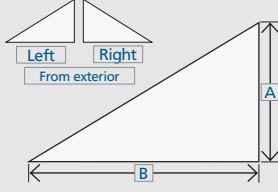
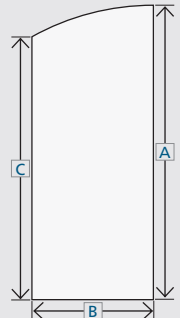
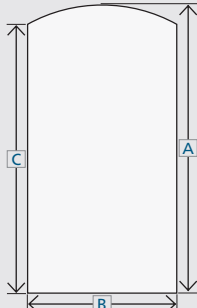
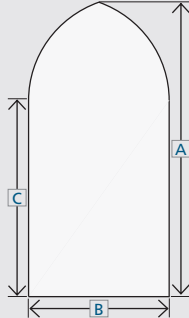
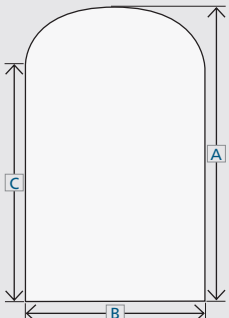
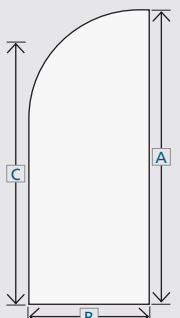
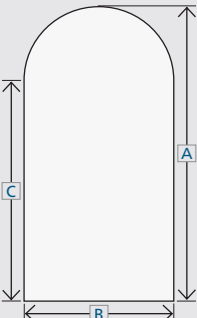
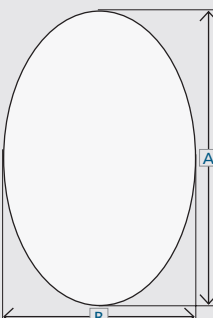
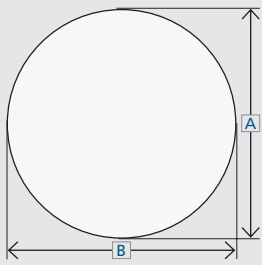
## MEASURING GEOMETRIC SHAPES

A geometric shaped window can be *direct-set\** or *fixed-sash\**. Measure the daylight opening on the interior side for each shape as shown here, record the measurements in the box provided, and if applicable, circle left or right orientation. Forward this form along with the “Caradco Collection Characteristics Form” to us. If you have a radius window that is not pictured here and there are no other drawings available, create a template (instructions at the end of this diagram).

Trapezoid	Parallelogram	True Pentagon	Peak Pentagon
A: B:	A: B:	A: B:	A: B:
C:	C:	C: D:	C:


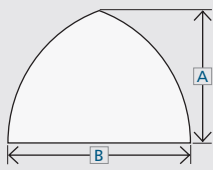
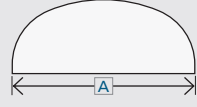
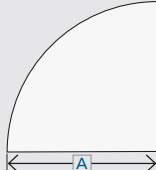

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## MEASURING GEOMETRIC SHAPES (CONTINUED)

<p><b>Right Angle Pentagon</b></p> 	<p><b>Hexagon</b></p> 	<p><b>Elongated Hexagon</b></p> 	<p><b>Octagon</b></p> 
<p>A:            C: B:            D:</p>	<p>A: B:</p>	<p>A:            C: B:</p>	<p>A: B:</p>
<p><b>Elongated Octagon</b></p> 	<p><b>Equilateral Triangle</b></p> 	<p><b>Isosceles Triangle</b></p> 	<p><b>Right Triangle</b></p> 
<p>A:            C: B:</p>	<p>A: B:</p>	<p>A: B:</p>	<p>A: B:</p>
<p><b>Quarter Segment Head</b></p> 	<p><b>Segment Head</b></p> 	<p><b>Gothic Arch</b></p> 	<p><b>Elliptical Arch</b></p> 
<p>A:            C: B:</p>	<p>A:            C: B:</p>	<p>A:            C: B:</p>	<p>A:            C: B:</p>
<p><b>Quarter Standing Arch</b></p> 	<p><b>Standing Arch</b></p> 	<p><b>Oval</b></p> 	<p><b>Full Round</b></p> 
<p>A:            C: B:</p>	<p>A:            C: B:</p>	<p>A: B:</p>	<p>A: B:</p>

Continued on next page

## MEASURING GEOMETRIC SHAPES (CONTINUED)

Chord Top	Gothic Top	Elliptical Top	Quarter Round	Round Top
				
A:	A: B:	A:	A:	A: B:

## CREATING A TEMPLATE

A template is a paper cut-out of a window unit. Use heavy gauge paper that will cover the entire window and is pliable enough to accurately trace or pierce at necessary points or surfaces and durable enough to resist tearing. Use a ball point pen and a straight edge long enough to reach both points (e.g. a carpenter's level). Do not use lumber or other such materials. Use extreme care and precision. An error of 1/8" may result in unusable replacement glass.

There are four points from which a template can be made:

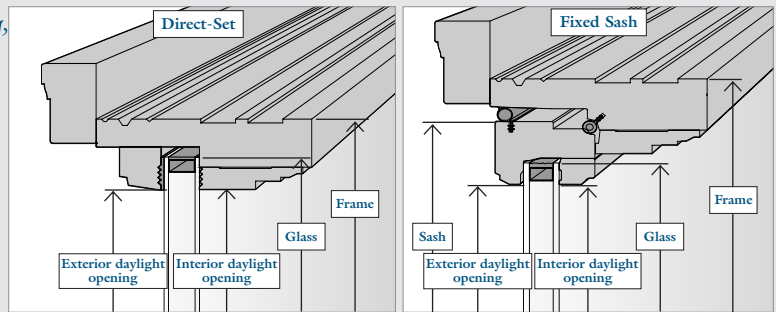
1 **Frame:** Create when ordering an entire unit.

*Note: When ordering a window for a masonry opening, a template of the masonry opening is helpful in addition to a frame template.*

2 **Sash:** Create when ordering a sash.

3 **Glass:** Create when ordering glass only. Glass must be removed for a proper template. If not possible, create a daylight opening template.

4 **Daylight opening:** May be created instead of a glass template if not able to remove the glass from the frame or sash.



### Frame Template

#### Uninstalled

- 1 Lay paper on flat surface large enough for window.
- 2 Place window on top of paper.
- 3 Trace around frame perimeter.
- 4 Remove window.
- 5 Cut around outline of traced window to create template.

#### Installed

Create from interior or exterior.

- 1 Remove window treatments or trim.
- 2 Fasten paper to window.
- 3 With ball point pen, draw small dots at each corner of the outside of the frame.

*Note: For radius, carefully trace the radius.*

- 4 Remove paper.
- 5 Draw lines connecting the small dots with a long straight edge.
- 6 Cut along lines to create template.

### Sash Template

- 1 Fasten paper to the exterior side of the sash.
- 2 With ball point pen, draw small dots at each corner of the outside of the frame.

*Note: For radius, carefully trace the radius.*

- 3 Remove paper.
- 4 Draw lines connecting the small dots with a long straight edge.

- 5 Cut along lines to create template.

### Glass Template

- 1 Remove glass from frame or sash.
- 2 Lay paper on flat surface.
- 3 Place glass on paper.

*Note: Do not allow glass to move or shift while tracing.*

- 4 Trace around the glass perimeter.
- 5 Remove glass and cut paper along the lines to create template.

### Daylight Opening

A daylight opening may differ from interior to exterior, so it is very important to clearly mark on the template if it is of the interior or exterior side. A daylight opening is wood-to-wood or clad-to-clad; do not include any glazing materials in the template. This procedure works for an installed or uninstalled window.

*From the interior or exterior,*

- 1 Fasten paper to glass with double-stick tape.
- 2 With ball point pen, draw small dots at each corner of the daylight opening.

*Note: For radius, carefully trace the radius.*

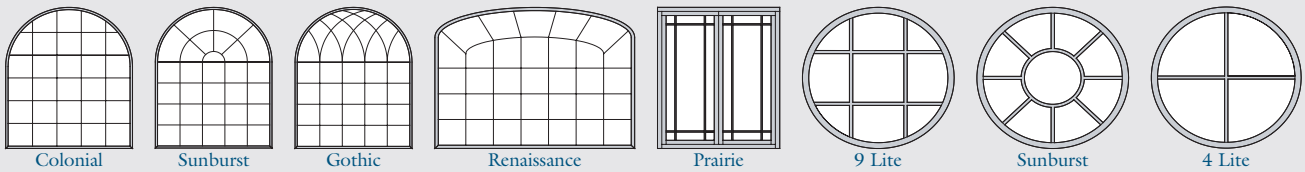
- 3 Remove paper.
- 4 Draw lines connecting the small dots with a long straight edge.
- 5 Cut along lines to create template.

## PRODUCT DETAILS

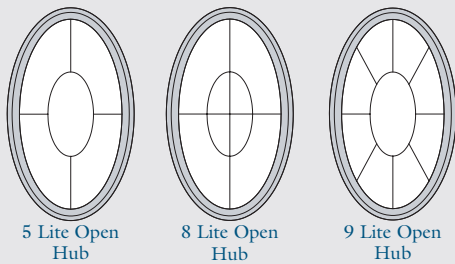
### Window Types (exterior view)



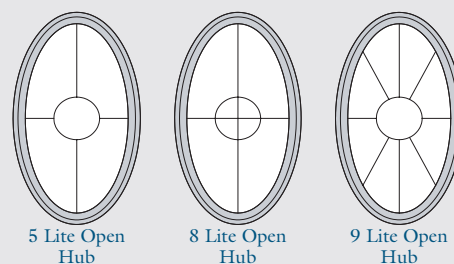
### Standard Grille Patterns



#### For removable wood grilles:



#### For simulated divided lites or grilles between glass:

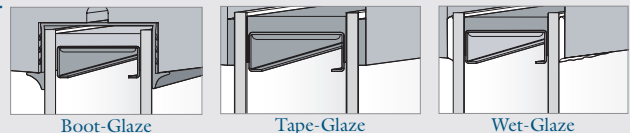


If grille pattern is custom, please draw on separate sheet of paper.

### Glazing Type

- **Boot** (gasket): Glass held in place and surrounded by a gasket.
- **Wet** (sealant): Glass held in place with sealant.
- **Tape**: Glass held in place with double-sided tape.

*Boot-glazing\** is easy to identify with a visible gasket around the glass. *Wet-glazing\** and *tape-glazing\** may be difficult to differentiate. If unsure, call us or your service provider.



### Glass Coatings

- Tempered
  - Low-E
  - Laminated
  - Impact (hurricane)
- Note: Look for etching on glass or label between glass panes to identify coating.*

### Glass Colors

- Gray
- Bronze
- Obscure
- Clear

### Clad\* Colors

- Hartford Green
- Sandstone
- Brilliant White
- Mesa Red
- Chestnut Bronze
- French Vanilla
- Black

### Operator Handle Type (Awning/Casement)

- T-Handle
- Round Knob
- Folding Crank
- Standard Crank
- ADA-Compliant Handle

### Casement Handing

- From the interior,
- If operator is on the right, it is left-handed
  - If operator is on the left, it is right-handed

### All Hardware Colors

- White
- Brass
- Champagne
- Chestnut Bronze

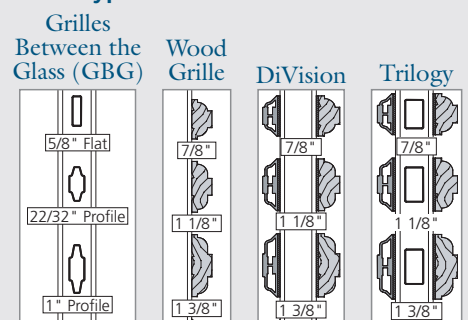
### Grille Colors

- Bronze
- French Vanilla
- White
- Sandstone
- Hunter
- Mesa Red
- Custom

### Grille Width

- 5/8"
- 23/32"
- 7/8"
- 1"
- 1 1/8"
- 1 3/8"

### Grille Types



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## PRODUCT DETAILS (CONTINUED)

### Patio Doors

#### Handing

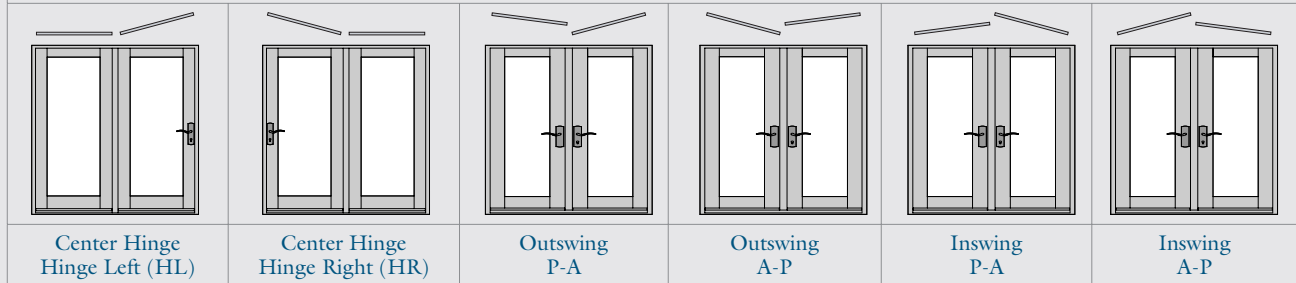
- To determine *door handing*, face the door so that it opens towards you. If the handle is on the right, the door is right-handed; if the handle is on the left, the door is left-handed.
- To determine *handle set handing*, face the exterior of the door. If the handle is on the right, the handle is right-handed; if the handle is on the left, the handle is left-handed.

#### Series

- Traditional Sliding
- Hallmark
- Manor
- View

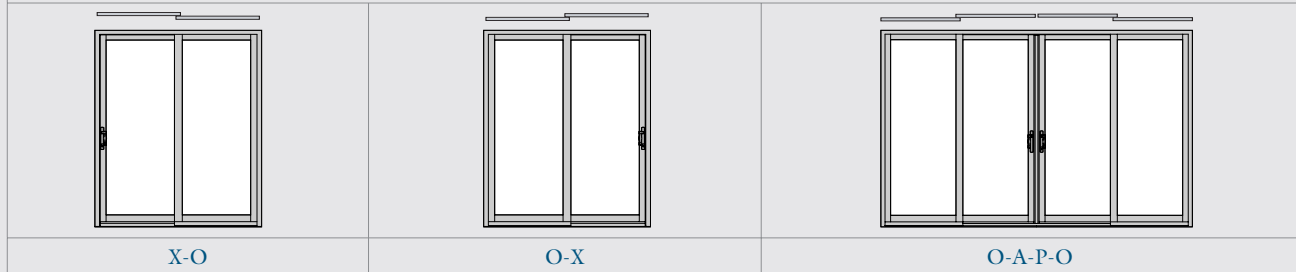
#### Swinging Patio Door (viewed from the exterior)

A=Active Panel (Active panel opens first)  
P=Passive Panel (Opens after active panel)

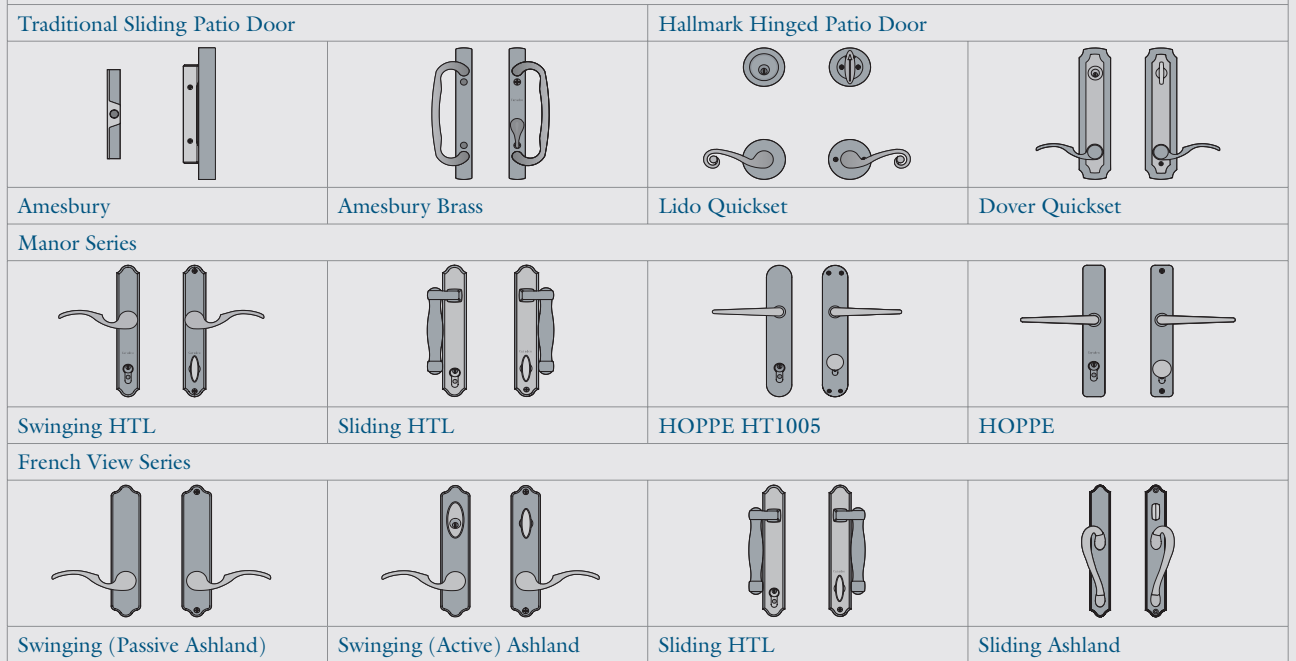


#### Sliding Patio Door (viewed from the exterior)

X=Operating Panel A=Active Panel (Active panel opens first)  
O=Operating Panel P=Passive Panel (Opens after active panel)



#### Handle Sets (If you have a patio door or handle set not illustrated here, pictures would be helpful.)



## INSULATING GLASS UNIT THICKNESS CHART

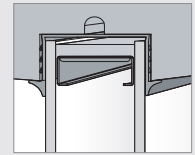
Use this chart to determine insulating glass unit thickness information to record on "Caradco Collection Characteristics Form."

Double-Hung Windows		Casement/Awning Windows		Horizontal Sliding Windows		Geometrics/Direct-Sets* (spandrels*), Transoms*, Round Tops		Patio Doors	
1966-1983 C-100 Primed Wood	7/16"	1966-1989 C-200 Primed Wood	7/16"	For the horizontal slider produced before 1975, call Caradco for glass thickness		1979-Present Clad Direct-Set	3/4"	1966-1983 Primed Wood Sliding Patio Door	5/8"
1983-1993 Classic Series Primed Wood	7/16"	1978-1986 Carclad Series	7/16"	1973-1979 C300 Primed	7/16"	1990-Present Primed Direct-Set	3/4"	1983-Present Traditional Sliding Patio Door, Clad and Primed	3/4"
1993-Present Classic II Series Primed Wood	5/8"	1986-Present Carclad Series	3/4"	1980-1988 C380 Primed	7/16"	1987-Present Clad Round Top	3/4"	1983-1985 All clad patio doors (Cladding flush to top edge of panel)	1"
1979-1988 C-112 Clad	7/16"	1987-1993 Heritage I Primed Wood	3/4"	1984-1986 Clad Horizontal Slider	3/4"	1988-Present Primed Round Top	3/4"	1985-Present Hallmark Series (Cladding bends over top and bottom edges of panel about 1/4")	3/4"
1988-1989 C-112 Clad	5/8"	1993-Present Heritage II Primed Wood	11/16"	1987-Present Vista Slider Clad & Primed	5/8"	1993-1999 Manor In-Sash Transom Clad & Primed	3/4"	1990-1999 French Manor Series Patio Door, Clad and Primed (Cladding bends over top and bottom edges of panel about 1/4")	3/4"
1989-Present Clad Guardian	5/8"	1995-1999 Tradition Series	11/16"			1999-Present French View In-Sash Transom Clad & Primed	3/4"	1999-Present French View Series Patio Door, Clad and Primed (Cladding bends over top and bottom edges of panel about 1/4")	3/4"
1999-Present Smart Fit	5/8"	2002-Present Tradition Plus	3/4"			1993-Present Sash Look Transom Clad & Primed	3/4"		
Double-Hung Picture (regardless of age)	3/4"	Casement/Awning Picture (regardless of age)	3/4"			1999-Present Smart Fit Transom and Round Top	3/4"		
						2002-Present Tradition Plus Direct-Set and Round Top	3/4"		

## WORD DEFINITIONS

### **Boot-glaze/boot-glaz/v**

The method by which glass is set and sealed into a sash or window opening with a rubber-like beige or gray gasket (“boot”).



Boot-Glaze

### **Clad/klad/adj**

Aluminum or vinyl material attached to the outside of a window or patio door that creates a durable, low-maintenance window.

### **Daylight opening/daylīt ōpēning/n** (also known as *visible glass*)

The area of glass in a window or patio door.

### **Direct-set/dirēkt-set/n** (also known as spandrel)

The window’s glass is secured directly into the window frame without the stiles and rails of a sash.

### **Divided lite/dē-vidēd līt/n**

A window opening divided into smaller sections by a grid system on the interior or exterior of the glass, between the glass panes, or any combination of these three.

### **Fixed sash / fikst sash / n**

An assembly comprised of stile (vertical pieces), rails (horizontal pieces), and a window’s glass that is fixed to the frame.

### **Grille/gril/n**

A decorative grid on the interior or exterior of the glass, between the glass panes, or any combination of these locations that divides a window opening into smaller openings to create simulated divided lite or true divided lite; grilles may or may not be removable.

### **Handing/hand ing/n**

The operating direction of a window or patio door; refers to the way the window or patio door will swing to open (right-handed or left-handed).

### **Lite/līt/n**

A framed opening in the glass within a sash or door panel; frequently used in reference to glass divided by a grid into multiple smaller openings.

### **Muntin/mōntēn/n** (see grille)

The individual pieces of a decorative grid.

### **Patio door panel/pāteeō dawr panēl/n**

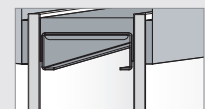
An assembly comprised of stiles (vertical pieces), rails (horizontal pieces) and the patio door’s glass.

### **Sash/sash/n**

An assembly comprised of stiles (vertical pieces), rails (horizontal pieces) and the window’s glass.

### **Tape-glaze/tayp glayz/v**

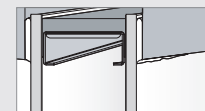
The method by which glass is set and sealed into a sash or window opening with a double adhesive tape.



Tape-Glaze

### **Transom/tran(t)sem/n**

A window, either fixed or operable, located directly above a door, sidelite or, occasionally, another window.



Wet-Glaze

### **Wet-glaze/wet-glaz/v**

The method by which glass is set and sealed into a sash or window opening with a caulking compound.



# CARADCO COLLECTION CHARACTERISTICS FORM (MAKE COPIES IF NEEDED FOR ADDITIONAL PRODUCTS)

Name:	Day Phone:	Evening Phone:
Address:	Mailing Address (if different):	
City:	State:	Zip:
Contractor's Name (if applicable):	Where Purchased:	Original Order #:
Date Purchased:	Date Installed:	
Etching or label on glass? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, what?		Spacer Code? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, what?

If possible when ordering, please provide sash/panel, daylight opening, and frame measurements. This will allow us to cross-check when placing your order and help us to ensure you receive the correct glass.

<b>PRODUCT #1</b>	Product Type: Casement (sample)								
	Qty	Sash, Panel, or Glass Needed	Sash/Panel (W x H)	Daylight Opening (W x H)	Frame (W x H)	Wood or Clad	Fixed or Operating	Grille Type/Size	Grille Color
	(sample)1	Sash	34½" x 58½"	30¼" x 54¼"	N/A	Clad	Op	Rem Grille 3/4"	White
	Grille Pattern	Glass Coating	Glass Color	Clad Color	Handle Type (Casement/Awning/Patio Door)	Handing	Hardware Colors	Glazing Type	Glass Thickness
	Rectangular	Tempered	Clear	White	Round Knob	Left-handed	White	Wet	

<b>PRODUCT #2</b>	Product Type:								
	Qty	Sash, Panel, or Glass Needed	Sash/Panel (W x H)	Daylight Opening (W x H)	Frame (W x H)	Wood or Clad	Fixed or Operating	Grille Type/Size	Grille Color
	Grille Pattern	Glass Coating	Glass Color	Clad Color	Handle Type (Casement/Awning/Patio Door)	Handing	Hardware Colors	Glazing Type	Glass Thickness

*Note on Radius and Fixed: If window is joined with another window, provide window type and details for the other window as well as for the radius or fixed window. Pictures are helpful.*