



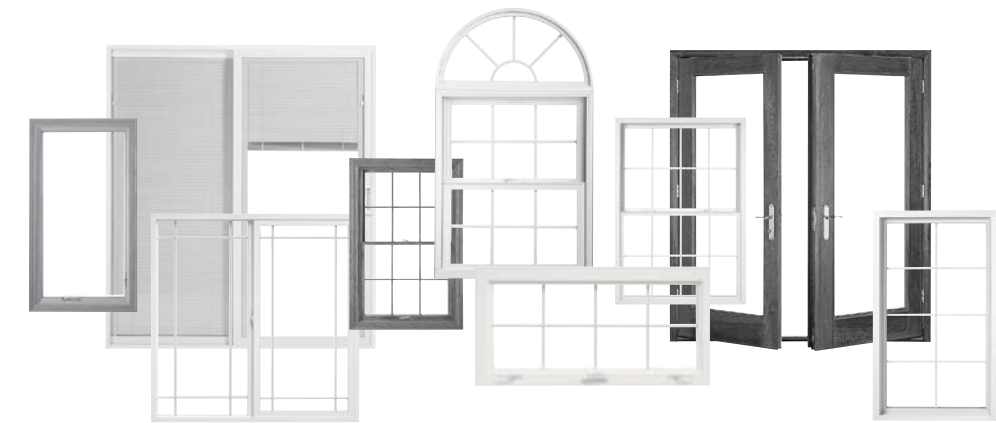
Windows and Patio Doors

Owner's Manual



Architect Series®, Designer Series®, Pella® ProLine 450 Series,

Pella Impervia®, Pella 350 Series, Pella 250 Series, ThermaStar by Pella®, Encompass by Pella®



Congratulations on your purchase of Pella® products! You have joined a select group of homeowners who have made their homes more beautiful and comfortable with Pella windows and doors for over 90 years. With proper installation, care and operation, your Pella windows and patio doors will provide years of enjoyment and make every day a little easier. Read this manual thoroughly during your first few days of ownership so you feel comfortable operating, cleaning and maintaining your products. Then refer to it in the future should a question arise. Remember, some Pella windows and doors have optional convenience features you may add. Like Pella's exclusive snap-in between-the-glass cordless blinds and shades, removable between-the-glass grilles, Vivid View® high-transparency screens, and Pella Rolscreen® retractable casement window and sliding patio door screens. They're available at the Pella Window and Door Showroom nearest you. Finally, rest assured that Pella will be here for you today ... and for years to come. Our goal is your complete satisfaction. If you have any questions or concerns or would like to learn more about your windows, patio doors or any of the exclusive options available for your Pella products, help is as close as your local Pella Window and Door Showroom or pella.com.

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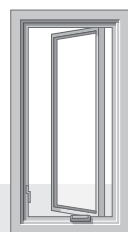
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Find Your Product Type

OVERVIEW

The *Pella Windows and Patio Doors Owner's Manual* contains specific information for each window and door style. Use the drawings and descriptions below to help locate the information you need. For the most up-to-date owner's manuals and warranties for Pella® products, go to pella.com.



Casement Windows

One sash that cranks open and closed.



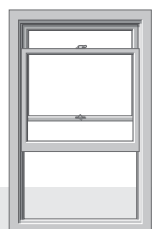
Awning Windows

One sash that cranks open and closed.



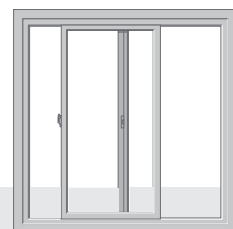
Double-Hung Windows

Two sashes that slide up and down.



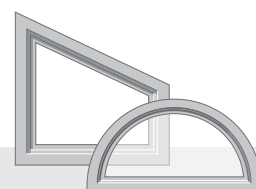
Single-Hung Windows

One sash that slides up and down.



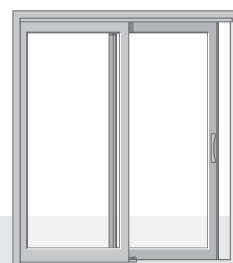
Sliding Windows

Operable sash slides open and closed — no hinges.



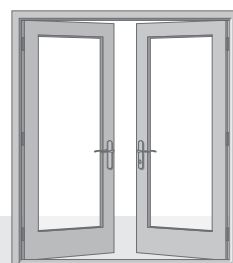
Fixed Windows

Nonoperable.



Sliding Patio Doors

Operable door(s) slides open and closed.



Hinged Patio Doors

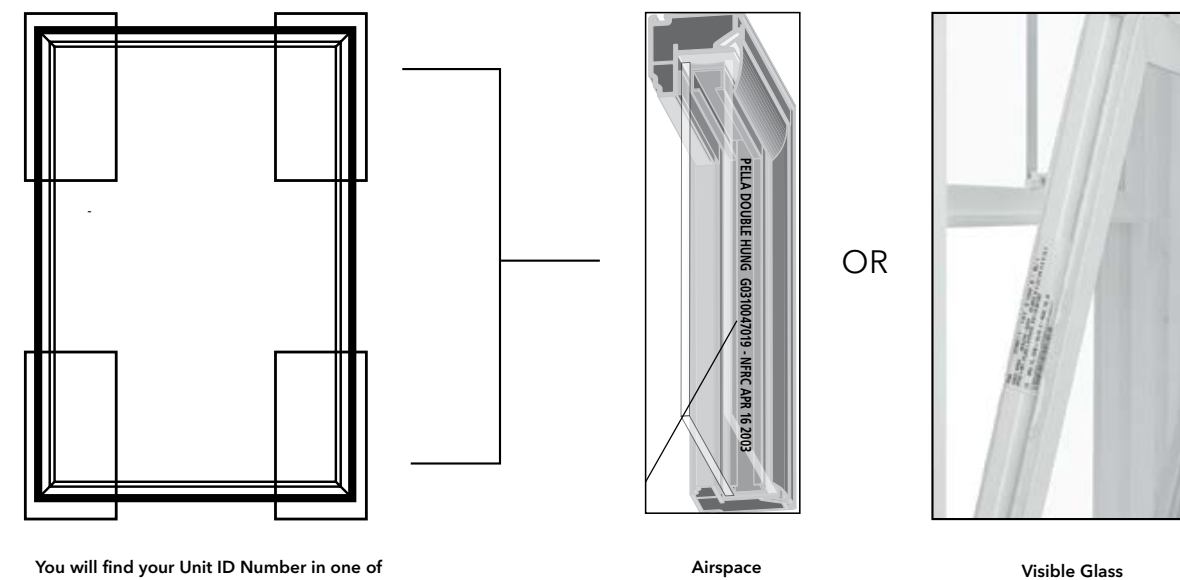
Operable door(s) swings open and closed.

Not sure what kind of Pella® product you have? Check the Unit ID Number, then call us.

UNIT ID NUMBER LOCATION

Pella products have a unique identification number to help save you time if your product ever needs service or repair. See the illustrations below to locate the identification number on your particular product.

Unit ID Number can be found in an upper corner in the airspace between the glass panels or on the visible glass or window sill in a lower corner. On patio doors, this number may also be located near the handle.



You will find your Unit ID Number in one of the four corners of the window or door.

Your Unit ID Number imprint may list your product series and type. If your Unit ID Number does not clearly indicate your product name, please call Pella Customer Service at 800-374-4758, read off your Unit ID Number and the Customer Service Representative can tell you the kind of Pella product you have.

Pella Customer Service

FOR SERVICE ASSISTANCE

In the event you need assistance, please contact the store where your products were purchased. Should you need additional assistance, contact Pella Customer Service by phone at 800-374-4758 or via our website at pella.com. Please have the Unit ID Number for your window or patio door ready when you contact us.

Materials Overview

WOOD | FIBERGLASS | VINYL

Pella manufactures windows and patio doors made out of three different materials – wood, fiberglass and vinyl. Here is an overview of our product lines. For optimal performance during weather such as a rain storm, windows and doors need to be shut and locked.

Wood Windows and Patio Doors with Aluminum-Clad Exteriors

ARCHITECT SERIES*, DESIGNER SERIES*, PELLA* PROLINE 450 SERIES

The Unparalleled Beauty of Wood

- Strong wood frames.
- Aluminum-clad exteriors with the added protection of durable low-maintenance EnduraClad® finish.
- Pella's EnduraGuard® wood protection.

Fiberglass Windows and Patio Doors

PELLA IMPERVIA*

Incredibly Strong Fiberglass

- Withstands extreme heat and cold.
- Outstanding performance with minimal maintenance.
- Durable powder-coat finish for the look of a painted window.*

*Pella Impervia Special Shape windows do not have a powder-coat finish.

Vinyl Windows and Patio Doors

PELLA 350 SERIES, PELLA 250 SERIES, ENCOMPASS BY PELLA*, THERMASTAR BY PELLA*

Easy-Care Vinyl

- Attractive interiors and exteriors stay looking great for years.
- Multichambered frames and fully welded sashes are strong and durable.
- Vinyl frames don't need painting or staining.

*ThermaStar by Pella products are sold exclusively in Lowe's.

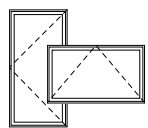


All Pella windows and patio doors offer the energy-efficient options that will meet or exceed ENERGY STAR® guidelines in all 50 states.*

*Some Pella products may not meet ENERGY STAR guidelines in Canada. For more information, contact your local Pella sales representative or go to energystar.gc.ca.

Product Overview: Casement and Awning Windows

CASEMENT / AWNING / DOUBLE-HUNG / SINGLE-HUNG / SLIDING / FIXED WINDOWS / SLIDING AND HINGED PATIO DOORS



Casement and Awning Windows

Architect Series, Designer Series, Pella ProLine 450 Series, Pella Impervia, Pella 350 Series, Encompass by Pella, ThermaStar by Pella

OPERATION

Casement windows feature a convenient locking system – a single, easy-to-reach sash lock handle operates locks on casement windows. **To open the window**, lift the sash lock handle to unlock, then rotate the handle and crank. Be sure to unlock the window before you try to open it – otherwise, you'll risk damaging the operating mechanism. **To close the window**, reverse the steps. Be sure to lock the sash whenever the window is closed.

Awning windows are similar to casement windows, only turned on their side. Awning windows are designed to be opened to a 45° angle or less. Large awning windows are designed to be opened approximately 8". They feature dual sash locks – both locks must be released before opening. If you prefer a different look, casement and awning handles and lock levers can be replaced with hardware in a different color/finish. See the Pella Window and Door Showroom nearest you for details.



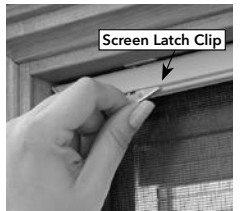
WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

FULL SCREENS

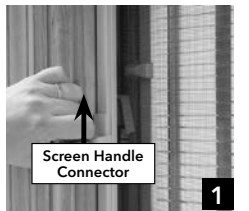
Architect Series*, Pella* ProLine 450 Series, Pella Impervia*

Removing the screen from the interior of the house/building requires two hands. Pivot the screen latch clips out of the grooves on the side of the window frame. While holding the screen latches securely, carefully bring the screen into the house/building.

Installing the screen from the interior of the house/building also requires two hands. Make sure the screen handle and screen latch clips are facing the interior, and then position the screen in the window frame. Pivot the screen latch clips into the grooves on the sides of the window frame to hold the screen in place.

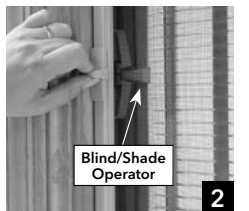


Designer Series



Screen Handle Connector

1



Blind/Shade Operator

2

Designer Series*

Remove the screen as described above.

To install the screen, follow the steps above, then move the screen handle sliding connector (1) so it aligns with the shade handle on your hinged glass panel (2). The two handles will latch together so you can operate your blinds or shades.

Pella 350 Series, Pella 250 Series, Encompass by Pella*, ThermaStar by Pella*

Removing the screen from the interior of the house/building requires two hands. To remove the screen, pull the plungers, tabs or locks located on the screen frame inward and out of the slots in the window frame. Grab the screen frame securely, then carefully bring the screen into the house/building.

Installing the screen from the interior of the house/building also requires two hands. To install the flat screen, place the screen in the window opening. Pull the plunger inward while pushing the screen into the window. Then reengage the plunger in the slots on the sides of the window.



WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.



NOTE: To help avoid scratching the fold-away handle or wood window frame, make sure the screen latches are fully retracted when removing or installing screens.

ROLSCREEN® RETRACTABLE WINDOW SCREENS

Architect Series, Designer Series

Operating the screen: This window screen is designed to retract when not in use, providing a beautifully clear view when you don't need a screen. When operating the screen, remember that it features spring action and will spring to the top if released. To lower the screen, use two hands and grasp each end of the operator bar, then pull it down smoothly and evenly. Press the operator bar firmly at the bottom to latch the screen in the down position. To raise the screen, grasp the operator bar with two hands, unlatch it and lift it up to the open position.

If the screen cloth becomes disengaged from the guide, gently push the screen cloth out to the exterior, raise the operator bar to the top of the window, and lower the screen. The screen cloth will retract back into the guide.



Operator Bar



WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.



CAUTION: Operating a retractable screen may result in a static discharge. A static discharge in the presence of a flammable substance such as an aerosol lubricant could cause ignition. To avoid injury and/or property damage, do not use any flammable substance on a retractable screen.

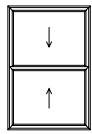


NOTE: To help avoid scratching the fold-away handle or wood window frame, make sure the screen latches are fully retracted when removing or installing screens.



Product Overview: Double-Hung Windows

CASEMENT / AWNING / **DOUBLE-HUNG** / SINGLE-HUNG / SLIDING / FIXED WINDOWS / SLIDING AND HINGED PATIO DOORS



Double-Hung Windows

Architect Series®, Designer Series®, Pella® ProLine 450 Series, Pella Impervia®, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

OPERATION

To open the window, unlock the sash lock located on the top of the lower sash. Wider windows may have two locks. Open the window. If you have full screens or no screens, you can open the upper or lower sash, or both, depending on your preference. To promote good air circulation in a room, open both the upper and lower sashes a few inches. On wood and fiberglass products with half screens, only the lower sash can be opened with the screen in place. Both sashes can be opened on vinyl; however, the upper sash will not have a screen.

To close the window, slide the upper and lower sashes back into position, then lock the window. Engaging the locks will automatically align and center the sashes together for a tight seal. (If your windows feature AutoLock, simply close your sash and confirm it latches.)

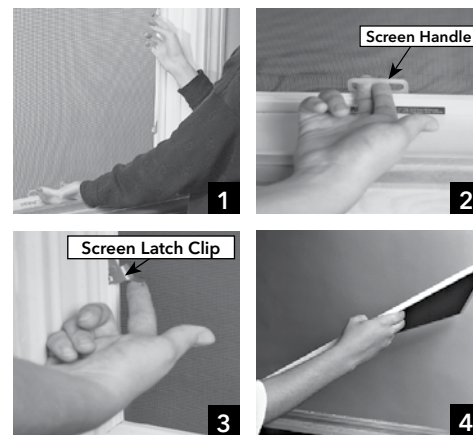
WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.



HALF SCREENS

Architect Series, Designer Series, Pella Impervia, Pella 350 Series, Pella 250 Series, Encompass by Pella, ThermaStar by Pella

Removing a half screen from the interior of the house/building requires two hands (1). To remove the double-hung half screen from the interior of the building, fully raise the lower window sash. Grasping the screen handle with one hand (2), use the other hand to pivot each of the four screen latch clips out of the grooves on the sides of the window frame (3). To avoid dropping the screen, be sure to hold the screen handle securely. Once all four screen latch clips are retracted from the frame, carefully push the screen away from the window frame. To bring the screen into the house/building through the window, carefully tilt and turn the screen so it fits through the open window (4), and then guide the screen through the window to the inside.



Installing a half screen from the interior of the house/building requires two hands. First, fully raise the lower window sash. Grasp the screen handle with one hand, and use the other hand to carefully guide the screen through the open window to the outside. Make sure the screen handle and screen latch clips are facing the interior, and then position the screen in the window frame. Pivot the four screen latch clips into the grooves on the sides of the window frame to hold the screen in place.

WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

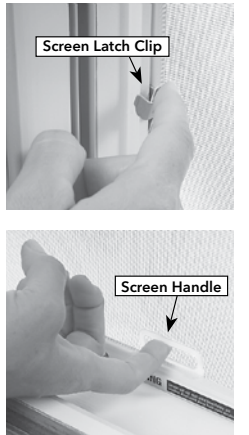
FYI **NOTES:**

- To help avoid scratching the fold-away handle or wood window frame, make sure the screen latches are fully retracted when removing or installing screens.
- Check the angled weatherstrip at the bottom of Architect Series or Designer Series screens to make sure they come in contact with the sill.

FULL SCREENS

Architect Series®, Designer Series®, Pella® ProLine 450 Series, Pella Impervia®

Removing a full screen from the interior of the building requires two hands. To remove the full screen from the interior of the building, fully raise the lower window sash. Grasp the screen handle with one hand, and use the other hand to pivot each of the four screen latch clips out of the grooves on the sides of the window frame. To avoid dropping the screen, continue to hold the screen handle securely. Once all four screen latch clips are retracted from the frame, carefully push the screen away from the bottom of the window frame first, then downward to release the screen from the top of the window frame. To bring the screen into the building through the window, carefully tilt and turn the screen so it fits through the open window, and then guide the screen through the window to the inside.



Installing a full screen from the interior of the house/building requires two hands. First, fully raise the lower window sash. Grasp the screen handle with one hand, and use the other hand to carefully guide the screen through the open window to the outside. Make sure the screen handle and screen latch clips are facing the interior, and then position the screen in the window frame. Pivot the four screen latch clips into the grooves on the sides of the window frame to hold the screen in place. **To help avoid scratching the window frame, make sure the latches are aligned with the slots and are fully retracted when installing or removing screens.**

To replace a full screen, unlock the window and raise the lower sash. Carefully pass the screen through the window opening with the handle on the bottom and the clips facing the interior. Position the screen against the frame, and insert the top-rail screen clips into the groove at the top of the frame. While holding the screen against the frame using the screen handle, press the screen clips into the frame. Close the window by lowering the lower sash, and then lock the window.

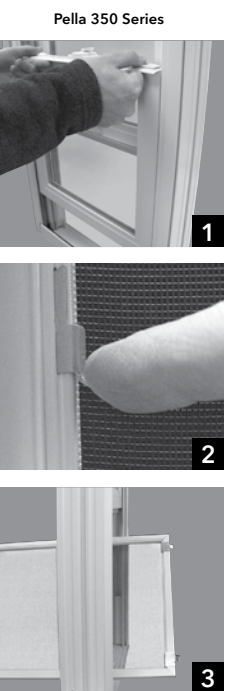
WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

FYI **NOTES:**

- Screens on tilting double-hung windows will not interfere with cleaning the interior or exterior surface of the glass and do not need to be removed.
- Check the angled weatherstrip at the bottom of Architect Series or Designer Series screens to make sure they come in contact with the sill.
- To help avoid scratching the wood window frame, make sure the screen latches are fully retracted when removing or installing screens.

Pella 350 Series

Removing the screen will take two hands. To remove the screen from the interior of the house/building, raise the lower sash by one-third and lower the upper sash by one-third. Then remove the four pull tabs located in each corner (1) and (2). Grasping the screen with two hands at the bottom, lift the screen, pushing out at the bottom. This should release the screen from the track. Carefully tilt and turn the screen so that it fits through the open window. Then pass the screen through the window to the inside of the house/building (3).



To replace the screen, reverse the process above and make sure the four pull tabs are engaged.

Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

Depending on the height of the window, your screen may have two or four plungers. Removing the screen will take two hands. To remove the screen from the interior of the house/building, raise the lower sash as far as it will go. Grip the plungers and pull them inward while pushing the screen outward, popping it out of the screen track. **If your screen has four plungers**, raise the lower sash by one-third and lower the upper sash by one-third. Then grip the two upper plungers and gently pull inward while pushing the screen out of the screen track. While still holding one of the upper plungers, carefully repeat the process with each lower plunger. Then tilt and turn the screen so that it fits through the open window, and pass it inside.

To replace the screen, carefully maneuver it through the window and align with the screen track. Gently grip the left and right plungers and pull inward while guiding the screen into the screen track. **If your screen has four plungers**, grip one of the upper plungers and one of the lower plungers, and gently pull inward and toward you to engage the screen into the track. Secure both bottom plungers, and then repeat the process to the top plungers, making sure that the screen is secure.

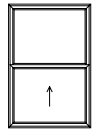
WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

FYI **NOTES:**

- To help avoid scratching the fold-away handle or wood window frame, make sure the screen latches are fully retracted when removing or installing screens.
- Depending on the size of your unit, there may be only two pull tabs, but the process will be virtually the same.

Product Overview: Single-Hung Windows

CASEMENT / AWNING / DOUBLE-HUNG / **SINGLE-HUNG** / SLIDING / FIXED WINDOWS / SLIDING AND HINGED PATIO DOORS



Single-Hung Windows

Pella® Impervia®, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

OPERATION

To open the window, unlock the lock located on the top of the venting (lower) sash. Larger windows may have two locks. Open the window by raising the lower sash.

To close the window, slide the sash back to the closed position and lock the window. Reengaging the lock will automatically align and center the sashes together for a tight seal. (If your windows feature AutoLock, simply close your sash and confirm it latches.)

WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.



**Pella Impervia
Cam-Action Sash Lock**



**Pella 350 Series
Cam-Action Sash Lock**



**Pella 350 Series and
Pella 250 Series
AutoLock (optional)**



**Pella 250 Series
Cam-Action Sash Lock**



**Encompass by Pella/
ThermaStar by Pella
Cam-Action Sash Lock**

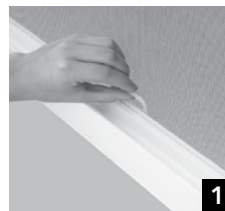


**Encompass by Pella/
ThermaStar by Pella
AutoLock (optional)**

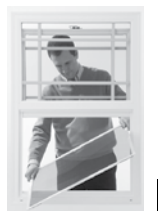
HALF SCREENS

Removing a screen requires two hands. To remove the screen from the interior of the house/building, fully open the lower sash. Grasping the screen handle, push the top of the screen frame upward or vertically and then push the bottom of the frame screen toward the exterior of the house/building (1). This should release the screen from the track. Carefully tilt and turn the screen so that it fits through the open window. Then pass the screen through the window to the inside of the house/building (2).

To replace a screen, reverse the process above and make sure the handle is engaged.



1



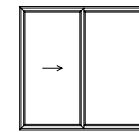
2

WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

NOTE: To help avoid scratching the fold-away handle or wood window frame, make sure the screen latches are fully retracted when removing or installing screens.

Product Overview: Sliding Windows

CASEMENT / AWNING / DOUBLE HUNG / SINGLE HUNG / **SLIDING** / FIXED WINDOWS / SLIDING AND HINGED PATIO DOORS



Sliding Windows

Pella® Impervia®, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

OPERATION

To open the window, unlock the lock located in the middle of the venting (moving) sash. Larger windows may have two locks. Slide the window open.

To close the window, slide the sash back to the closed position and lock the window. Reengaging the lock will automatically align and center the sashes together for a tight seal. (If your windows feature AutoLock, simply close your sash and confirm it latches.)

WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.



**Pella Impervia
Cam-Action Sash Lock**



**Pella 350 Series
Cam-Action Sash Lock**



**Pella 350 Series and
Pella 250 Series
AutoLock (optional)**



**Pella 250 Series
Cam-Action Sash Lock**



**Encompass by Pella/
ThermaStar by Pella
Cam-Action Sash Lock**



**Encompass by Pella/
ThermaStar by Pella
AutoLock (optional)**

HALF SCREENS

Removing a screen requires two hands. To remove the screen from the interior of the house/building, fully open the venting sash. Grasping the screen handles with two hands, push toward the opposite side of the screen frame and then push the handle side of the screen frame toward the exterior of the house/building (1). This should release the screen from the track. Carefully tilt and turn the screen so that it fits through the open window. Then pass the screen through the window to the inside of the house/building (2).

To replace a screen, reverse the process above and make sure the handle is engaged.

WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

NOTE: To help avoid scratching the fold-away handle or wood window frame, make sure the screen latches are fully retracted when removing or installing screens



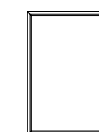
1



2

Product Overview: Fixed Windows

CASEMENT / AWNING / DOUBLE-HUNG / SINGLE-HUNG / SLIDING / **FIXED WINDOWS** / SLIDING AND HINGED PATIO DOORS



Fixed Windows

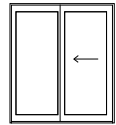
Architect Series®, Designer Series®, Pella ProLine 450 Series, Pella Impervia, Pella 350 Series, Pella 250 Series, Encompass by Pella, ThermaStar by Pella

OPERATION

Fixed windows do not open. Since the sash cannot be removed, the exterior must be cleaned from the outside. For additional cleaning instructions, please refer to the cleaning sections of this manual, pages 20 – 24.

Product Overview: Sliding Patio Doors

CASEMENT / AWNING / DOUBLE-HUNG / SINGLE-HUNG / SLIDING / FIXED WINDOWS / **SLIDING AND HINGED PATIO DOORS**



Sliding Patio Doors

Architect Series®, Designer Series®, Pella® ProLine 450 Series, Pella Impervia®, Pella 350 Series, ThermaStar by Pella®, Encompass by Pella®

OPERATION

Thumbturn Lock

Architect Series, Designer Series, Pella ProLine 450 Series, Pella Impervia, Pella 350 Series, ThermaStar by Pella, Encompass by Pella

The thumbturn lock is located behind the door handle. To lock the door, turn the thumbturn lock to a vertical locked position while the door is still open. The locking system will engage when the door is closed. To unlock the door, turn the thumbturn lock in the opposite direction to a horizontal position.

WARNING: To prevent locking yourself out, turn the thumbturn lock to the horizontal position (unlocked). When the thumbturn lock is in the vertical (locked) position, the door will automatically lock when closed.



Footbolt Lock

Architect Series, Designer Series, Pella ProLine 450 Series, Pella Impervia

The footbolt lock has two positions. One allows the door to be latched when it's about 3" open; the other provides extra security when the door is fully closed. To engage the lock, move the lock handle toward the side of the door. To disengage the lock, move the lock handle toward the center of the door.



SCREENS

Architect Series, Designer Series

Architect Series and Designer Series patio screen doors are spring-loaded to help close automatically after the closing motion is started. If yours doesn't, make sure the spring is attached at the top (see page 35).

To keep the patio screen door from closing automatically, push the door to the fully open position. There is a friction catch that holds the door open. To latch and unlatch your sliding patio screen door, turn the knob located directly beneath the handle.

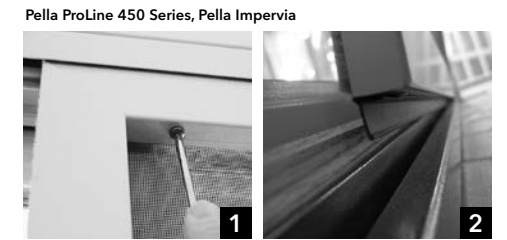
To remove an Architect Series or Designer Series sliding screen door for storage, first locate the interior rack cover at the top of the door frame (1). Then find the four sets of two screws located under the track cover (2), and unscrew each set one or two turns until the cover becomes loose (3). Remove the track cover. Next, disengage the springs from the door frame (4). Then remove the screen door. Finally, to replace the track cover, position it in place and tighten each set of screws.



Pella® ProLine 450 Series, Pella Impervia®

To remove the screen door for storage, remove the two screen hanger screws in the top rail of the screen with a Phillips-head screwdriver (1). Tilt the top toward the interior, then lift up until the bottom guide is out of the sill frame track (2).

To install the screen door, insert the bottom screen guide into the sill of the frame track. Keep the guide in the frame track, and tilt the top of the screen up against the door panel. Align the two screen hanger screws with the holes in the screen carrier. Turn each screw approximately twice to adjust them (1). Turn the screw clockwise to raise the screen until the pile insect strip on the exterior of the screen's top rail touches the screen track. Slide the screen to within 1" of the lock side of the door. The space between the screen and the lock side of the door should be equal from the top to the bottom of the screen. If the space is not equal, adjust the screen hanger screws.



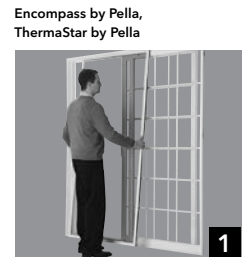
Pella 350 Series, Encompass by Pella®, ThermaStar by Pella®

To remove the screen door for storage, loosen the roller adjustment screws on the top and bottom of the screen rails. Then lift the screen up and tilt the bottom toward you (exterior) to release it from the bottom track.

To install the screen door, lift the top of the screen into the screen channel and align the bottom of the screen over the track. Then lower into place. Tighten the roller adjustment screws as necessary, using a Phillips-head screwdriver.

WARNING: Screen will not stop child or pet from falling out of door. Keep child or pet away from open door.

FYI NOTES:
 • To help avoid scratching the wood door frame, make sure the screen latches are fully retracted when removing or installing screens.
 • Do not adjust too high or too low, or the screen will not slide properly. Check the screen operation. Ensure the screen operates and latches smoothly.



ROLSCREEN® RETRACTABLE PATIO DOOR SCREENS

Architect Series®, Designer Series®, Pella 350 Series

The optional sliding patio screen door is designed to retract when not in use, providing a clear view when you don't need a screen.

When operating the screen, remember that it features spring action and will spring to the stored position when released. To close the screen, grasp the handle and pull across smoothly and evenly until the screen latch catches. To open the screen, push the screen latch button over and allow the screen to return to the stored position.

If the screen cloth becomes disengaged from one of the guides, push the screen cloth to the exterior and then open and close the screen. The screen cloth will retract itself back into the guide.

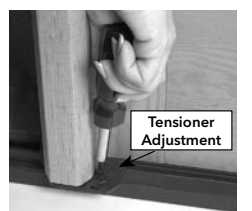
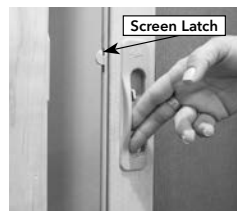
Rolscreen retractable screen doors manufactured after 2006:

To adjust the Rolscreen tension, insert a flat-blade screwdriver into the tensioner adjustment slot at the bottom of the Rolscreen housing. Turn in the direction of the arrow.

WARNING: Screen will not stop child or pet from falling out of door. Keep child or pet away from open door.

CAUTION: Operating a retractable screen may result in a static discharge. A static discharge in the presence of a flammable substance such as an aerosol lubricant could cause ignition. To avoid injury and/or property damage, do not use any flammable substance on a retractable screen.

FYI NOTE: Because we're always working to further refine our products and develop new ones, specifications may change without notice. Actual products may vary slightly from illustrations and photos.



Product Overview: Hinged Patio Doors

CASEMENT / AWNING / DOUBLE-HUNG / SINGLE-HUNG / SLIDING / FIXED WINDOWS / SLIDING AND HINGED PATIO DOORS



Hinged Patio Doors

Architect Series®, Designer Series®, Pella® ProLine 450 Series

OPERATION

Multipoint Locking System

Architect Series, Designer Series, Pella ProLine 450 Series

These hinged patio doors have a multipoint locking system that engages at the top, middle and bottom, plus a thumbturn lock and keylock. Turn the thumbturn lock inside or use the key outside to unlock the door. To open the door, grasp the handle and push down, then open the door.

To engage the multipoint lock, close the door and lift up the handle. To lock the door so that it requires a key to unlock it from the outside, either turn the keylock on the exterior or turn the thumbturn lock on the inside with the handle raised. Test the door to make sure it's locked.



NOTES:

- Make sure the door is completely closed before engaging the multipoint locking system. Failure to do so may mar the door's finish or frame.
- Engage the multipoint lock when the door is closed to help keep door panels square.
- Engaging the multipoint lock by lifting the lever does not lock the door from the outside.



Thumbturn Lock

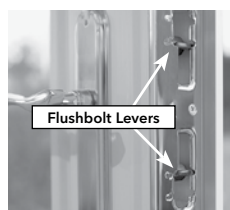


Lever Handle

Flushbolt Locking System

Designer Series

If your Designer Series hinged patio door has two panels and one panel has a nonoperable handle, the main panel locks and unlocks as described in the "Multipoint Locking System" section above. The stationary panel locks and unlocks with flushbolts at the top and bottom of the panel. To disengage these flushbolts, find the black levers located on the strike plate and push the levers in, then up or down. There are small icons on the strike plate to denote the locked or unlocked position.



Flushbolt Levers

Blinds and Shades Between-the-Glass



Blinds and Shades Between-the-Glass

Designer Series®, Pella® 350 Series, Encompass by Pella®, ThermaStar by Pella®

SNAP-IN BETWEEN-THE-GLASS BLINDS AND SHADES

Designer Series®

Raise-and-lower Slimshade® blinds.

The blind operator raises, lowers and tilts the blinds. Slide the operator gently up and down to lower and raise the blinds. The tilt function is accomplished with the initial movement of the shade operator.



Blind/Shade Operator

Tilt-only Slimshade blinds.

Tilt-only blinds can be positioned for light and privacy control, but will not raise and lower. To change the angle of tilt-only Slimshade blinds, move your shade operator handle up and down. Experiment with the adjustment to obtain the amount of light or privacy you desire.

Fabric shades.

The shade operator will raise and lower your fabric shade. Slide the operator up and down to the desired point.



NOTE: For Designer Series between-the-glass blinds and shades with Pella Insynctive™ technology, please go to [Insynctive.pella.com/support](https://www.pella.com/support). Click on Manuals and Warranties to locate the Designer Series Between-the-Glass Blinds and Shades Product Guide.

OPENING THE HINGED GLASS PANEL

Designer Series

Find the latch releases, located on one side of the unit (positioned at each end of that side.) Slide each latch along the channel until you feel it release. (Note: There may be more than two latch points, depending on product size.) Then gently pull on the perimeter frame and open the panel. To close the hinged glass panel, gently push the panel until it snaps shut at the latch location – much the same way you would with a glass stereo cabinet door. Listen for a click at each latch. (Make sure latches are moved to the top and bottom to avoid interference with blind/shade operator.)



Latch Release

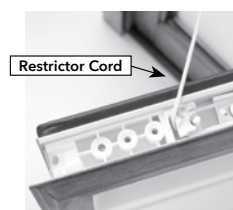


CAUTION: Do not remove or cut the white restrictor cord that limits the opening of the hinged glass panel. Doing so may cause serious damage, including glass breakage, to your Pella product. The cord should only be detached by a qualified service technician when performing service-related procedures.



NOTES:

- To help ensure smooth operation, do not position the latch release or operator directly over any of the interior latches.
- When the hinged glass panel is opened, there may be a Low-E coating on the inside of the glass. This coating will feel slightly different. Occasionally, a mark may appear on this Low-E surface due to metal coming into contact with the surface. Most often, this is not a scratch and can be removed using the instructions found on page 20 under "Cleaning the glass on all Pella products."

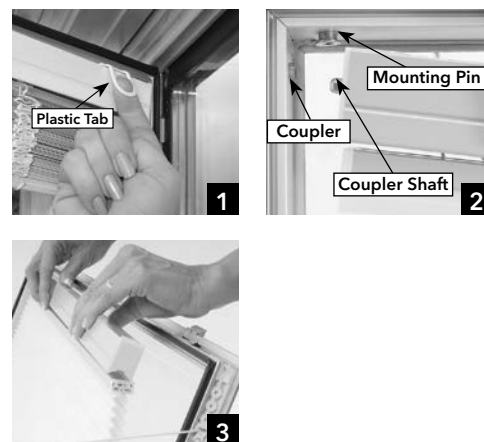


Restrictor Cord

CHANGING SNAP-IN BETWEEN-THE-GLASS BLINDS OR SHADES

*Designer Series**

Open the hinged glass panels (see previous page), and if present, remove the grilles (see instructions on page 19). To remove the existing blinds or shades, first find the plastic tab at the top corner of the panel. Use it to grab the blind or shade and pull it straight out (1). Then slide the side opposite the plastic tab over and lift it off of the mounting pin. To install the new window blind or shade, slide the side with the coupler shaft up and over the mounting pin and into the coupler (2). If the coupler shaft will not slide all of the way in, move the blind or shade operator to align it. Then snap the opposite side in over the mounting pin (3). Finally, check operation of the blind or shade and replace the grilles, if applicable, and close the hinged glass panel.



FYI NOTE: It's important to remember when reinstalling the shade to have the operator positioned opposite the shade. If the shade is in the up position, the operator must be all the way down for successful operation.



Change your mind; change your blinds or shades.

If your Designer Series window or patio door has a hinged glass panel, you may change or remove the blinds or shades under the glass. You could replace your snap-in between-the-glass fabric shades with Slimshade® blinds or add grilles – it's a great way to give your windows a different look. For more information, contact the Pella Window and Door Showroom nearest you.

FYI NOTE: To order the correct size for your snap-in between-the-glass blinds or shades on Pella® Designer Series windows and patio doors, look for the Unit ID Number marked on the aluminum surface in the airspace between the glass panels. It will be located in the lower left corner (from inside the room).

PERMANENT BLINDS OR SHADES BETWEEN-THE-GLASS

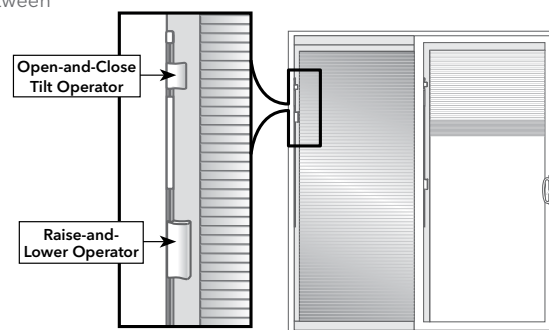
Pella 350 Series, Encompass by Pella®, ThermaStar by Pella® (sliding patio doors only)

The aluminum blinds and fabric shades between-the-glass are permanently installed between panes of glass, so they stay clean and never need to be removed.

To operate, move the operators up and down in a slow and steady motion. The operators are attached to the operating mechanism with high-powered magnets. Moving the operators abruptly could cause them to become disengaged from the magnet.

If the blind or shade does not completely lower on one side, using the tilt operator, ensure the slats are in the open position, then raise and lower the blind.

FYI NOTE: If a handle becomes disengaged from the operator and remains attached to the track, slide the operator up and down until the magnet reengages. Slowly slide the handle all the way to the top of the track to fully engage the handle with the operator.



Grilles



Grilles

Architect Series®, Designer Series®, Pella® ProLine 450 Series, Pella Impervia®, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

ALUMINUM GRILLES-BETWEEN-THE-GLASS

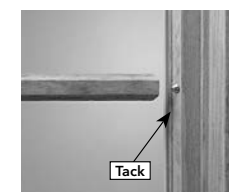
Architect Series, Pella ProLine 450 Series, Pella Impervia, Pella 350 Series, Pella 250 Series, Encompass by Pella, ThermaStar by Pella

The aluminum grilles-between-the-glass are permanently installed between panes of glass, so they stay clean and never need to be removed.

REMOVABLE WOOD ROOMSIDE GRILLES

Architect Series, Pella ProLine 450 Series

Grasp the end of one removable interior grille bar at a time, and gently pull until the end of the bar disengages. Repeat until all grille bars are removed. To reinstall the grilles, set them in place by aligning the clips on the brass-colored tacks, then gently press on the end of each bar until it snaps into place.



FYI NOTE: If the grille has stand-offs (doors with double-pane glass) or bumpers (doors with triple-pane glass), DO NOT remove them from the grille. Removing may cause the grille to rattle against the glass.

PERMANENT INTERIOR/EXTERIOR GRILLES

Architect Series, Pella ProLine 450 Series, Pella 350 Series, Pella 250 Series

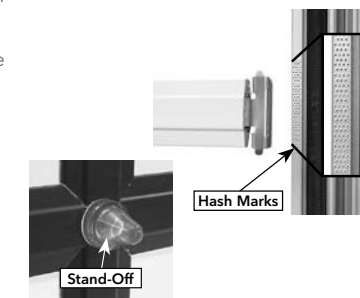
If your products have permanent grilles, please refer to the cleaning section on page 20 for general glass maintenance information.

SNAP-IN BETWEEN-THE-GLASS GRILLES

Designer Series

Open the hinged glass panel (see page 17). To remove an existing removable grille, start at the bottom of the window and grasp the end of the grille next to the grille clip and gently pull. To install a grille, start at the top of the window and align each clip as needed. Some products include hash marks imprinted in the hinged glass panel to indicate proper placement. Press gently on the clip to snap it onto the frame.

FYI NOTE: If the grille has stand-offs (large windows or doors with double-pane glass) or bumpers (with triple-pane glass), DO NOT remove them from the grille. Removing may cause the grille to rattle against the glass.



Cleaning

CLEANING THE GLASS

Architect Series®, *Designer Series*®, *Pella ProLine 450 Series*, *Pella Impervia*®, *Pella 350 Series*, *Pella 250 Series*, *Encompass by Pella*®, *ThermaStar by Pella*®

Cleaning the glass on all Pella products:

1. Use an ammonia-free glass cleaner such as Pella™ Glass and Window Cleaner. Or you may use a premixed vinegar-based cleaning solution (or make your own with one part white vinegar to 10 parts water), and apply to a soft, clean, lint-free microfiber cloth or paper towel. Feel free to be generous with the amount of cleaner you apply to the cloth or paper towel, but avoid getting any cleaning solutions on the wood, fiberglass or vinyl frames, as they may discolor the finish.
2. Rub from several different directions.
3. Rinse with clear water if streaks remain after cleaning.

- FYI** NOTES:
- Do not use glass cleaners that are ammonia- or alcohol-based. They may leave streaks or produce a film that attracts moisture or dust.
 - Do not use a razor blade to scrape off stubborn materials – doing so may leave permanent marks on the glass or scratches that could cause glass breakage.



SPOT-CLEANING STUBBORN MATERIALS

Architect Series, *Designer Series*, *Pella ProLine 450 Series*, *Pella Impervia*, *Pella 350 Series*, *Pella 250 Series*, *Encompass by Pella*, *ThermaStar by Pella*

Spot-cleaning stubborn materials on glass.

To remove any markings from grease, oil, tape, adhesive, crayons or paint, or marks from plastics that may have come in contact with the glass:

1. Apply a solvent such as acetone, rubbing alcohol or mineral spirits to a clean, dry, lint-free microfiber cloth.
2. Rub on the areas of glass that need spot-cleaning only. Avoid getting any solvents on the wood, fiberglass or vinyl frames, as they may discolor the finish.
3. Wipe clean using a clean, dry, lint-free microfiber cloth or paper towel.
4. Then clean the glass as instructed in the previous section.

- FYI** NOTE:
- Do not use a razor blade to scrape off stubborn materials – doing so may leave permanent marks on the glass or scratches that could cause glass breakage. Contact the Pella Window and Door Showroom nearest you for special cleaning instructions.

SPOT-CLEANING MARKS ON A SUNDEFENSE™ DUAL LOW-E ROOM-FACING GLASS SURFACE

NOTE: To determine if the glass is SunDefense Dual Low-E, look at your insulating glass identification label, usually located in the corner of your window (see example at right). The letter E in the ID number indicates SunDefense Dual Low-E.

Occasionally, a mark may appear on the interior of Dual Low-E glass due to metal coming in contact with the surface. Most often, this is not a scratch and can be removed using the following instructions:

1. Apply undiluted white vinegar to a soft, clean, lint-free microfiber cloth or paper towel.
2. Rub the marked area from several different directions.
3. If the mark still remains on the room-facing Low-E glass surface, apply a small amount of Bar Keepers Friend® or Cerama Bryte® Ceramic Cooktop Cleaner to a soft, clean, lint-free microfiber cloth or paper towel. Avoid getting any cleansers or solvents on the wood, fiberglass or vinyl frames, as they may discolor the finish.
4. Rub the marked area again from several different directions until it disappears.
5. Then clean normally as instructed in the first section, "Cleaning the glass on all Pella products."



The letter E on the glass identification label indicates SunDefense Dual Low-E glass.

- FYI** NOTES:
- Some marks may require repeating this process.
 - Do not use a razor blade to scrape off stubborn materials – doing so may leave permanent marks on the glass or scratches that could cause glass breakage. Contact the Pella Window and Door Showroom nearest you for special cleaning instructions.

CLEANING THE EXTERIOR GLASS FROM THE INTERIOR ON DOUBLE-HUNG WINDOWS

Architect Series®, *Architect Series Precision Fit*

First, unlock and raise the lower sash 3". Then tilt in the lower sash by sliding the sash releases in toward the center of the sash – sash releases are located on the backside at the top of the lower sash (1). Carefully tilt the lower sash out toward you like an oven door at a 90° angle.

(Important: Support the lower sash with help from another person or chair to avoid the sash damaging the wall or window frame.)

Next, slide down the upper sash until you can reach the upper sash releases located on the top of the sash. Simultaneously slide both releases toward the center (2), and hold them inward while pulling the top sash open like an oven door. Clean the upper sash exterior glass while holding the sash with one hand or with help from another person.

Then, while sliding the sash releases in toward the center of the sash, lift and pivot the upper sash upright, and push it back into its normal operating position. Now clean the exterior glass of the lower sash. Then slide the sash releases in again and pivot the lower sash upright, and push it back to its normal operating position.

Finally, close and lock the window.

- !** WARNING: Take appropriate steps to avoid falling out of a window during cleaning. A fall out a window could result in death or serious injury.

- !** CAUTION: When returning the upper sash to its normal operating position, followed by the lower sash, be sure to hold the sash releases in to prevent damage to the window frame. Be careful not to pinch your fingers when returning the sashes to their normal operating positions. Ensure the sash releases are fully extended into the channel. If the sash release is not secure in the channel when the sash is lifted from the bottom, the top of the sash may unexpectedly tip into the room and come in contact with a person, resulting in injury.

- FYI** NOTE: To avoid damage to the sash, be sure to slide the sash releases in prior to pushing the sash back in place.

Designer Series®, *Designer Series Precision Fit*, *Pella ProLine 450 Series*

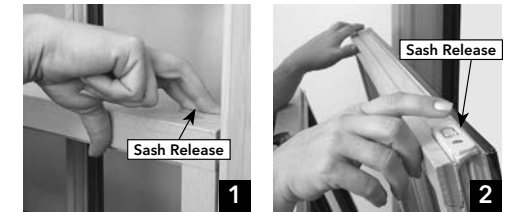
First, unlock and raise the lower sash 3". Then tilt in the lower sash by pressing on one side of the jambliner and pulling that corner of the sash toward you (1). Repeat on the other side. Carefully tilt the lower sash toward you like an oven door at a 90° angle (2).

(Important: Support the lower sash with help from another person or chair to avoid the sash damaging the wall or window frame.)

Next, with the lower sash tilted in, slide down the upper sash until you can comfortably and safely place your hands on the top of the sash. Place one hand on the top of the upper sash, press in on the one side of the jambliner and pull that corner of the sash toward you (3). Repeat on the other side. (It may be slightly harder to open than the lower sash.)

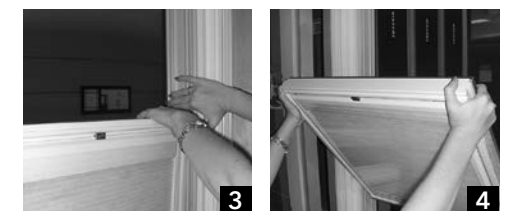
Carefully tilt the upper sash out like an oven door (4). Clean the upper sash exterior glass with one hand or with help from another person (5). Then lift and pivot the upper sash upright, and push it back into its normal operating position within the jambliner with one firm and quick movement, applying equal pressure on both corners of the upper sash. Now clean the exterior of the lower sash (6). Then lift and pivot the lower sash upright, and push it back into its normal operating position within the jambliner with one firm, quick movement, applying equal pressure on both top corners of the lower sash. Finally, close and lock the window.

- !** WARNING: Do not use the sash to support your body weight because the sash can pivot under pressure. An individual could fall from a window, resulting in death or serious injury.



LOWER SASH

UPPER SASH

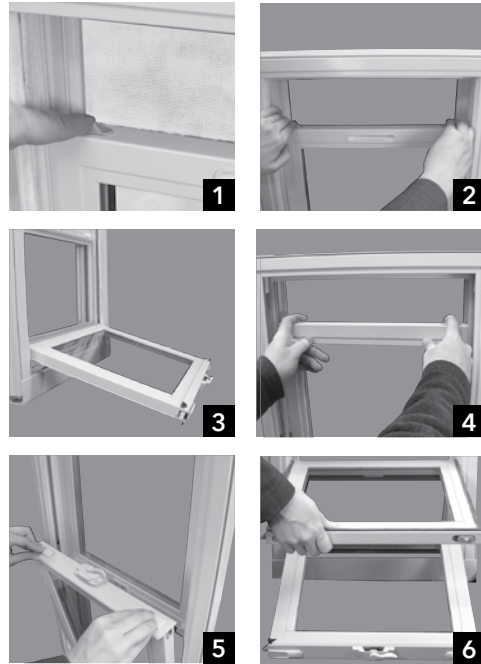


CLEANING THE EXTERIOR GLASS FROM THE INTERIOR ON DOUBLE-HUNG WINDOWS

Pella® Impervia®, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

You can tilt both sashes of the double-hung window to the interior of the room for easier cleaning of the exterior glass.

1. Unlock and slightly raise the lower sash (1). Release the tilt latches located on the top of the lower sash, and pull the sash toward the interior of the room (2).
2. Carefully tilt the lower sash until it rests on the trim (3).
3. Pull down the upper sash until you can put your hands comfortably and safely on the top of the sash (4).
4. Release the tilt latches on the top of the upper sash, and pull the sash toward the interior (5). Carefully lower the upper sash to rest against the lower sash (6).
5. Clean the exterior glass of the upper sash, then lift and rotate it upright. Push it back into its normal position while pulling the tilt latches in. Reengage the latches. Raise sash to a fully closed position.
6. Clean the exterior glass of the lower sash, then lift and rotate it upright. Push it back into its normal operating position while pulling the tilt latches in. Reengage the latches. Lower sash to a fully closed position.



! **WARNING:** Do not use the sash to support your body weight because the sash can pivot under pressure. An individual could fall from a window, resulting in death or serious injury.

! **CAUTION:** Sash may be heavy.

CLEANING THE EXTERIOR GLASS FROM THE INTERIOR ON SINGLE-HUNG WINDOWS

Pella Impervia, Pella 350 Series, Pella 250 Series, Encompass by Pella, ThermaStar by Pella

For windows featuring a **TILTING** lower sash. (Instructions for removable lower sash are below.)

Lower sash only.

1. Unlock and slightly raise the lower sash. Release the tilt latches located on the top of the lower sash, and pull the sash toward the interior of the room. (The screen does not need to be removed to clean the exterior glass.)
2. Continue lowering the lower sash until it rests on the trim.
3. Clean the exterior glass of the lower sash, then lift, rotate upright and push it back into its normal operating position.

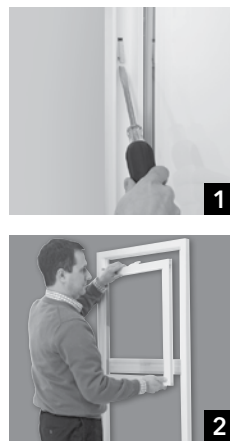


! **WARNING:** Do not use the sash to support your body weight because the sash can pivot under pressure. An individual could fall from a window, resulting in death or serious injury.

For windows featuring a **REMOVABLE** lower sash. (Instructions for tilting lower sash are above.)

You can remove the lower sash of the single-hung window for easier cleaning of the exterior glass.

1. Locate the take-out clips at the top of the sides of the window. Pop up the bottom of the take-out clips with a flathead screwdriver.
2. Unlock the window and raise the lower sash until the sash balances engage the take-out clips (i.e., until the sash is raised above the take-out clips). Slide the sash to one side, allowing the opposite side to clear the frame. Remove the sash and set it aside for cleaning.



! **CAUTION:** Sash may be heavy.

Lay sash flat to wash the exterior glass on the vent panel. To wash the fixed panel from the interior of the building, remove the screen and reach out to wash the exterior glass.

! **WARNING:** Do not extend your body out of the window. If the entire glass of the fixed panel cannot be reached from the interior of the house/building, wash the fixed panel from the exterior of the house/building. Take appropriate steps to avoid falling out of a window, which could result in death or serious injury.

If cleaning the glass from the exterior, follow the "Cleaning the glass" steps.

CLEANING EGRESS WINDOWS

Architect Series®, Designer Series®, Pella® ProLine 450 Series, Pella Impervia®

Some windows have optional emergency-exit (egress) hardware identified by red "Open" labels. These windows are designed to provide a wider opening when fully opened. To wash casement egress windows:

1. Unlock the sash and crank the roto-operator to position the roto-operator shoe against the "Wash" label on the egress operator slide.
2. Push the bottom release levers outward to release the hinges.
3. Slide the edge of the sash toward the center of the window opening. The sill hinges will lock in place and position the sash for washing.
4. The release lever will automatically reset when the window is closed.

! **WARNING:** Take appropriate steps to avoid falling out of a window during cleaning. A fall out a window could result in death or serious injury.

CLEANING CONVENTIONAL FIBERGLASS SCREENS

Architect Series, Designer Series, Pella ProLine 450 Series, Pella Impervia, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

To clean a fiberglass screen, either remove the screen and gently wash it with mild soap and water and rinse thoroughly, or use the drapery brush attachment on your vacuum cleaner.



! **WARNING:** Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

FYI **NOTE:** Do not power-wash.

CLEANING INVIEW™ AND VIVID VIEW® HIGH-TRANSPARENCY SCREENS

Pella Impervia®, Pella 350 Series®

To clean these screens, either remove the screen and gently wash it with soap and water and rinse throughly, or use the drapery brush attachment on your vacuum cleaner. Note that the ultrafine screen material is more delicate than fiberglass or aluminum screens and should be handled with care.

* Available with the option of InView screens only.

! **WARNING:** Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

FYI **NOTE:** Do not power-wash.

CLEANING ROLSCREEN® WINDOW SCREENS

Architect Series, Designer Series

Rolscreen window screens should be in the down and locked position for cleaning. For normal dust and dirt, use a vacuum cleaner with the upholstery brush attachment. If necessary, use the exhaust feature to blow debris off the exterior side of the screen. For greasy deposits, gently wash with hot water and mild detergent and rinse with clear water. If you wash your screen, make certain it is dry before putting it back in the stored position.

! **WARNING:** Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

! **CAUTION:** Operating a retractable screen may result in a static discharge. A static discharge in the presence of a flammable substance such as an aerosol lubricant could cause ignition. To avoid injury and/or property damage, do not use any flammable substance on a retractable screen.

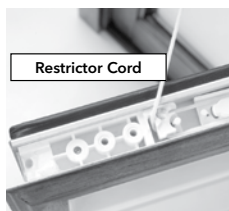
FYI **NOTES:**
 • Since Rolscreen window screens are spring-operated, be sure to follow operating instructions (see page 9).
 • Do not power-wash.

CLEANING THE HINGED GLASS PANEL AND BETWEEN-THE-GLASS GRILLES

Designer Series

First, raise the blind or shade completely. Then open the hinged glass panel (see page 17).

Before cleaning, if your window has snap-in between-the-glass grilles*, remove the grilles (see page 19) and set them aside. Then snap out your between-the-glass fabric shades or blinds (see page 18). Clean the glass surfaces as previously described on page 20. To remove any grease or sealant on the glass, use listed solvents sparingly, then wash again with cleaning solution. If streaks still appear after a thorough cleaning, rinse the glass with clear water. After cleaning and allowing to dry thoroughly, reinstall your snap-in between-the-glass blinds or shades and grilles and firmly close the hinged glass panel until all latch points have been snapped shut. (You'll hear a click at each latch point.)



* If between-the-glass grilles or interior edge of the hinged glass panel needs cleaning, wipe with a damp cloth.

! **CAUTION:** Do not remove or cut the white restrictor cord that limits the opening of the hinged glass panel. Doing so may cause serious damage, including glass breakage, to your Pella product and may result in injury. The cord should be detached only by a qualified service technician when performing service-related procedures.

FYI **NOTE:** When the hinged glass panel is opened, there may be a Low-E coating on the inside of the glass. This coating will feel slightly different. Occasionally, a mark may appear on this Low-E surface due to metal coming into contact with the surface. Most often, this is not a scratch and can be removed using the instructions found on page 20 under "Cleaning the glass on all Pella products."

CLEANING BETWEEN-THE-GLASS SLIMSHADE® BLINDS

*Designer Series®***Raise-and-lower or tilt-only between-the-glass Slimshade blinds.**

Should your between-the-glass blinds need cleaning, first make sure the blinds are in the horizontal (open) position, then open the hinged glass panel (see page 17). To remove dust, use a vacuum cleaner with the upholstery brush attachment. You can remove smudges, fingerprints, etc. with a damp cloth or carefully remove the blinds from the unit and immerse the blinds in a tub or tray of lukewarm water and mild detergent. Rinse them with clear water, then let them air-dry completely before reinstalling and closing the hinged glass panel.

CLEANING BETWEEN-THE-GLASS FABRIC SHADES

*Designer Series***Raise-and-lower fabric cellular shades.**

For between-the-glass shades, begin by opening the hinged glass panel (see page 17). If your shades become dusty, use a vacuum cleaner with the upholstery brush attachment. (Smudges, fingerprints, etc. can be carefully removed with a damp cloth.) **Never use cleaners with ammonia** – they will damage the fabric. If there are any exposed threads, trim them and seal them with a fray-check solution (available at most fabric stores) to reduce fraying. Once they are clean and dry, raise the shades before closing the hinged glass panel.

FYI NOTE: To maintain the shade's crisp, pressed appearance, raise it completely open and leave it raised for a couple of hours at least once a week. To remove wrinkles, a hand-held travel-size steamer is best.

CLEANING THE WEEP SYSTEM

Architect Series®, Designer Series, Pella® ProLine 450 Series, Pella Impervia®, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

It is normal for water to accumulate in the sill and track. On products with weep holes, the water is intended to drain to the outside via the drainage or "weep" holes. Check to make sure that the weep holes are clear of obstruction (dirt, sand or building materials). To clean the weep holes, use a small, soft brush to clear the opening. Weep holes may be located both inside and outside the window in the bottom of the frame. If the window is "stacked," there may be weep holes between the units.

CLEANING THE SILL

Architect Series, Designer Series, Pella ProLine 450 Series, Pella Impervia, Pella 350 Series, Pella 250 Series, Encompass by Pella, ThermaStar by Pella

To remove dirt or debris on the sill of the window, open the lower sash approximately 4" to 5" and use a vacuum cleaner with the brush attachment to clean off the debris.

CLEANING THE INTERIOR AND EXTERIOR FRAME AND SASH MATERIAL

Architect Series, Designer Series, Pella ProLine 450 Series, Pella Impervia

Clean the surface with warm, soapy water. Stubborn stains and deposits may be removed with mineral spirits. Do not use abrasives. Do not scrape or use tools that might damage the surface. Should you need it, touch-up paint is available at the Pella Window and Door Showroom nearest you.

Pella 350 Series, Pella 250 Series, Encompass by Pella, ThermaStar by Pella

Begin cleaning by vacuuming dirt from the sill and track areas. Then wash the window frame and sash with a mixture of mild dish soap and water and rinse thoroughly.

FYI NOTES:

- Do not use abrasive or caustic solvents as they may damage your windows.
- Do not scrape or use tools that might damage the surface. Do not power-wash.

CLEANING THE HARDWARE FINISH

A soft cloth and mild cleaner may be used on all Pella hardware finishes except Oil-Rubbed Bronze hardware.

FYI NOTES:

- To avoid damaging the finish, do not use cleaners on Oil-Rubbed Bronze hardware. Simply wipe with a soft cloth.
- Oil-Rubbed Bronze window hardware is a living finish that will develop its own unique patina with use, care and handling.

Finishing Your Pella® Wood Products

PELLA WOOD INTERIORS OR EXTERIORS

With proper care, your windows and doors will provide years of enjoyment and make every day a little easier.

If your Pella products were delivered and installed without an interior finish (paint or stain), you must finish them right away to protect your investment. (Mahogany exterior windows and patio doors must be finished immediately upon receipt of the product, prior to installation.) Painting or staining and sealing help ensure your windows and doors will beautify and protect your home the way they were designed to. A finish helps seal the wood and reduces damage from UV rays that will gray the wood. **Please note that if a failure to finish your Pella product in a timely manner contributes to a defect, the defect would not be covered under the warranty** – and the Pella warranty does not cover issues associated with improper finishing. Please refer to the warranty at pella.com/warranty.

Pella Corporation is recognized as a quality manufacturer of windows and doors. However, your local paint professional is the best source for expert advice on finishing them. Whether you choose to stain and finish your new Pella windows and doors to bring out the natural beauty of the wood or paint them to match your interior trim or décor, be sure to consult your local finishing professional and follow the recommendations in this manual to achieve maximum beauty and performance from your Pella products.

FYI NOTE: For a professional-looking painted finish, it's important to use quality brush or spray techniques. Contact your local paint professional for recommendations.

FINISHING THE INTERIORS OF PELLA WOOD WINDOWS AND PATIO DOORS

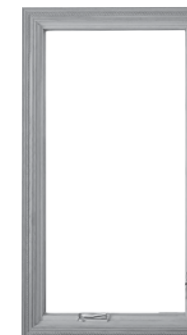
Before you begin.

Your local paint/finish store representative can best address your specific finishing needs. Here are some questions you should ask:

- ✓ What are my finish options?
- ✓ Which finishes perform best in my region of the country?
- ✓ How do the temperature and humidity level at the time of finishing affect my results?
- ✓ Should I use an interior or exterior product?
- ✓ What do I need to know about product compatibility – for example, between the pre-stain, stain and finish coats?
- ✓ What else should be considered to obtain the best results?

FYI NOTES:

- To maintain proper product performance, **DO NOT** remove factory-installed weatherstripping, dust pads or gaskets when finishing your products. If the removal of weatherstripping, dust pads or gaskets contribute to a defect, the defect would not be covered under the warranty.
- Always wear protective personal equipment when sanding, and read and follow the manufacturer's directions for proper use and disposal of paint, stain or other finishing materials.



FINISHING THE INTERIORS OF PELLA WOOD WINDOWS AND PATIO DOORS (CONTINUED)

1. Prepare interior wood surface.

Prior to finishing the wood surface of your window or door, light **sanding with the grain** of the wood is required to remove any rough surfaces or construction residue. Sanding will also help ensure a more consistent stain finish. **Do not use steel wool** – the steel fibers can get caught in the surface of the wood and rust when exposed to moisture. **Avoid touching the glass with the sandpaper.** To protect the glass surface from scratches, use a sanding block and an edger. Use 180-grit or finer sandpaper, and sand with the grain – sanding against the grain causes unsightly marks in the wood. Be sure to remove all sanding dust with a tack cloth before applying any finish.

FYI NOTE: Follow the manufacturer's instructions regarding application, storage and disposal of finishing products.

2. Clean the glass.

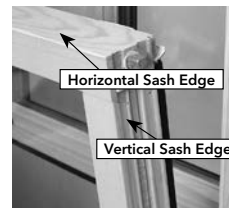
Refer to "Cleaning the glass" section on page 20.

3. Apply interior finish.*Designer Series®*

- If your window or patio door has a hinged glass panel, the warranty does not require you to finish underneath this panel. However, if you choose to finish this area, it will accept paint or stain. If finishing this surface, DO NOT remove the hinged glass panel; just open it and finish the visible wood. Close the panel immediately when finished (it will not stick). See instructions on how to open and close the hinged glass panel (page 17).

Architect Series®, Designer Series, Pella® ProLine 450 Series

- **Do not allow paint, stain or finish to get on the weatherstripping or vinyl parts! If it does, remove the residue immediately by blotting it thoroughly with a rag/cloth.** Allow it to dry, then carefully flake off any excess residue with your fingernail.
- **Casement and awning windows:** Painting, staining or finishing the vertical and horizontal sash edges is optional.
- **Double-hung windows:** Painting, staining or finishing the horizontal sash edges is optional.
Do not finish the vertical sash edges. Any finish on the vertical sash edges may cause the sash to stick.
- **Sliding patio doors:** Painting, staining or finishing the vertical and horizontal door panel edges is optional. Please see "Removing the movable panel on Pella wood sliding patio doors for finishing" on page 28.
- **Hinged patio doors:** Painting, staining or finishing the vertical and horizontal door panel edges is optional.
- **Grilles:** Please see "Finishing wood removable grilles" on page 27.



A STAINED WOOD INTERIOR FINISH

Pella strongly recommends the use of a good-quality pre-stain wood conditioner before staining Pella® windows and patio doors to reduce the possibility of a blotchy-looking, uneven finish. Be sure to ask your paint/finishing professional to recommend a pre-stain wood conditioner, a stain and a finishing coat that are compatible.

- Apply the pre-stain conditioner according to the instructions provided by the manufacturer.
- Next, apply a good-quality stain.
- Finally, apply three coats of exterior-grade finish, such as a polyurethane finish.

A PAINTED WOOD INTERIOR FINISH

An important consideration when choosing your paint is good blocking resistance – the ability of a paint to resist sticking. Failure to use a high-quality paint with good blocking resistance may result in a window or door that sticks shut – even after the paint has dried. Ask a qualified paint professional or a nearby extension office to help you find a paint with good blocking resistance. Don't simply rely on a paint's price or brand name in making your selection – an expensive paint may not necessarily offer good blocking resistance.

Applying interior finish

- Ask your paint professional to recommend a wood primer and paint that are compatible – and ask if sanding is required between coats of paint.
- Read and follow the manufacturer's directions for using your finishing products. For sliding patio doors, see "Removing the movable panel on Pella wood sliding patio doors for finishing" on page 28.
- Start by applying one coat of a quality wood primer. Note: If your products are factory-preprimed, skip this step.
- Next, apply two coats of high-quality interior paint with good blocking resistance.

After finishing with paint, stain or clear coat, allow the windows and doors to cure completely – per the manufacturer's directions – before closing them or reinstalling patio door panels.

FINISHING WOOD REMOVABLE GRILLES

Architect Series®, Pella® ProLine 450 Series

Removable room-side grilles should be removed before finishing (to prevent scratching the glass) and sanded lightly with 180-grit or finer finishing sandpaper.

Always sand with the grain.

Before you begin finishing, look at the grille to determine which side will face the room. The side that slides over the brass-colored tack will face the exterior; the longer, tapered side will face the interior. Some grilles allow for different interior and exterior finishes (such as paint on the outside surface and stain on the inside surface). For a stained or natural finish, use the same steps as mentioned for the stained interior finish of your windows or patio doors. For a painted finish, use the same primer and paint that you use to finish the interior and/or exterior of your windows or patio doors. Be sure to finish the grille ends to seal and help protect the wood. If you choose to paint one side of the grille and stain the other, use removable painter's tape, with a light adhesive, to mask off the grille as you're applying a specific finish to one side only.

Designer Series®

The exterior side of your grille already matches the exterior cladding and requires no finishing.

The interior side of your grille is either completely finished, primed or unfinished wood. If your interior is primed or unfinished, lightly **sand with the grain** of the wood using 180-grit or finer sandpaper to remove any rough surfaces. Sanding will help ensure a more consistent stain finish. Be sure to remove all sanding dust with a tack cloth before applying any finish.

To apply finish, lay the grille down on a flat, covered surface. Apply the finish with a spray or brush application, per the recommendations of your local paint supplier. Be careful not to get the finish on the exterior side. If finish gets on the exterior side, quickly wipe down with a cloth before the finish cures.

FINISHING THE EXTERIORS OF PELLA WOOD WINDOWS AND PATIO DOORS

Aluminum-clad exterior.

All Pella aluminum-clad wood products have a baked-on EnduraClad® or EnduraClad Plus protective finish. Pella does not recommend you repaint these finishes. **Please note that if painting over the factory finish contributes to a defect, the defect would not be covered under the warranty.** If you choose to repaint, be sure to work with your local paint professional.

Primed wood exterior.

If your window or patio door has a primed wood exterior, you will need to paint it immediately after installation. The factory-applied primer is not intended for long-term exterior exposure. Follow the steps for painting as instructed on page 27. Use two coats of a quality exterior trim paint to provide sufficient protection from the elements.

Unfinished Mahogany exterior.

If your window or patio door has an unfinished Mahogany exterior, it must be finished prior to installation. Do not expose unfinished Mahogany to the exterior elements. Follow the steps for finishing as instructed on pages 25-27. Use two coats of quality exterior trim stain and three coats of ultraviolet (UV) inhibitor to provide sufficient protection from the elements.

REMOVING THE MOVABLE PANEL ON PELLA WOOD SLIDING PATIO DOORS FOR FINISHING

To finish a sliding patio door, you must remove the movable/vent door panel. **Note that two people are required to safely remove the movable door panel.**

Architect Series®, Designer Series®

- Unlock and open the movable panel.
- Remove the screw that attaches the panel retainer to the roller retainer. Remove the panel retainer.
- To ensure there is enough clearance to lift the panel, lower the panel by removing the dust plug from each side of the panel, inserting the screwdriver and turning counterclockwise.
- Grasp the panel from the exterior, and lift the bottom off the track and away from the sill. If the panel cannot be lifted high enough for the rollers to clear the track, lower the panel for more clearance.

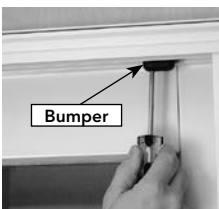
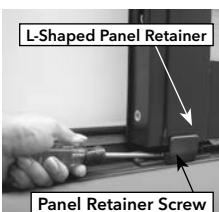
Pella ProLine 450 Series

- Using an 8" screwdriver, remove the screw at the bottom of the interior handle insert. Lift the insert from the handle, and remove the pan-head screws to release the interior and exterior handle.
- Remove the retainer angle (mounted on the exterior of the sill).
- Open the movable panel approximately 12".
- Grasp the panel from the exterior, and lift the bottom off the track away from the sill. If the rollers will not clear the track, adjust the rollers by turning the roller adjustment screws counterclockwise for more clearance.

To replace the operating/opening panel on any of the doors, follow their respective instructions in reverse order.

FYI NOTE: Be sure to protect the aluminum cladding from scratches and dents during the finishing process.

Architect Series and Designer Series Products



Maintenance

EXTERIORS / INTERIORS / SPECIFIC WINDOWS

OVERVIEW

Pella recommends you inspect your windows and patio doors at least annually as part of a home checkup. Maintenance can prolong the life of your Pella® windows and doors and will help ensure maximum warranty coverage. As needed, clean, repaint or restain your windows and patio doors, and recaulk around them to help maintain optimal performance. Also, be sure to regularly check for leaks and improper drainage above or around vents and sprinkler systems that may subject your windows and patio doors to prolonged water exposure. With proper maintenance, Pella windows and patio doors can reward you with years of beauty and performance.

EXTERIORS

An annual checkup can help preserve and maintain the beauty of your Pella products for years to come.

Inspect the sealant/caulking on the exterior perimeter of your windows and patio doors at least once a year. The sealant/caulking helps create a watertight seal between the window frame and the exterior siding (whether it is vinyl, cedar, aluminum, brick, etc.). It is extremely important that the sealant/caulking remains intact and in good condition at all times. Pay particular attention to the caulking at the lower corners of windows and under joints between windows in combinations (a grouping of individual windows). The sealant material should not be cracked, broken or missing – or it may cause premature failure of your Pella products or other parts of your home. Deterioration that occurs as a result of improper or insufficient maintenance is not covered by the Pella warranty.

For wood products, check the exterior paint for corrosion, peeling and/or cracking. If the exterior surface indicates any deterioration, problem areas must be touched up as soon as possible to help prevent further damage. Please see "Salt spray environments" on page 30. Instructions and touch-up paint for aluminum-clad products are available from the Pella Window and Door Showroom nearest you.

INTERIOR WOOD FINISHES

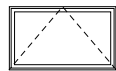
At least once a year, inspect the interior finish of your windows and/or patio doors to make certain that the painted or stained finish is in good condition. UV rays from the sun can break down the paint's/stain's finish and compromise its protective features. Should it be necessary to refresh your finish, contact your local finishing professional for tips on how to refinish your windows and patio doors.

CASEMENT WINDOWS

To keep the window operating smoothly, clean the window track occasionally with a dry brush. To help prevent the sash from sticking, apply a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to the track if necessary. **Do not use oily lubricants;** they attract dust and grime, which may eventually restrict the window's movement. You can remove the operating crank on your window by loosening the set screw located on the bottom of the crank. It's important to keep the set screw tight; using a crank handle with a loose set screw causes the crank and operator stud to wear.



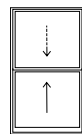
AWNING WINDOWS



Keep the window track free of dirt and debris. As with casement windows, you may want to apply paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to the weatherstripping for smoother operation. **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the window's movement.

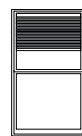


DOUBLE- OR SINGLE-HUNG WINDOWS



Keep the jambliner on the sides of the window frame clean and lubricated with a thin coat of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to keep them working smoothly. **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the window's movement. Paraffin or other dry lubricant should also be applied to the sash.

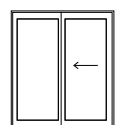
SNAP-IN BETWEEN-THE-GLASS FABRIC SHADES



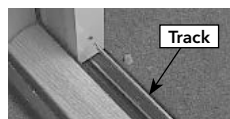
Designer Series®

To maintain the shade's crisp, pressed appearance, raise the shade completely and leave it raised for a couple of hours at least once a week.

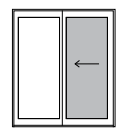
SLIDING PATIO DOORS



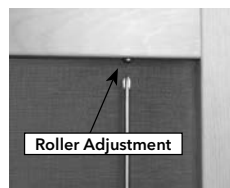
For proper operation, keep the door track free of debris. You can adjust the rollers located in the bottom of the door if necessary. The lock strike can also be adjusted if needed (see page 34 for complete details).



SLIDING PATIO SCREEN DOORS



Pella® wood and fiberglass screen doors are top-hung – it is important to keep the upper and lower door track free of dirt and debris. The rollers on the top of the screen can be adjusted if necessary (see page 14 for complete details). If the screen becomes dirty, you can clean it using a vacuum cleaner with the upholstery brush attachment.



WARNING: Screen will not stop child or pet from falling out of door. Keep child or pet away from open door.

SALT SPRAY ENVIRONMENTS

The seacoast and other corrosive environments are extremely hard on all sorts of products (automobiles, recreational vehicles, building products, etc.). Any product used in a seacoast location or other corrosive environment will require more frequent inspection and maintenance to help it last as long as possible in this harsh environment. Windows and doors are no different from other products in this respect.

If your home is in a coastal or other corrosive environment and is subjected to wind-driven salt spray or salt fog, use a mild detergent soap and water to clean exterior cladding and operating hardware at least quarterly and more often, if necessary, to prevent salt or other abrasive materials from building up. Any damage that occurs as a result of salt or other abrasive materials that have been allowed to build up is not covered by the Pella warranty.

FYI NOTE: Do not power-wash.

Troubleshooting

GLASS / SPECIFIC WINDOWS AND DOORS / BETWEEN-THE-GLASS BLINDS AND SHADES

OVERVIEW

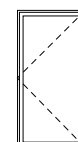
If you have a concern with your Pella® product or need additional assistance from an experienced professional, consult your *Yellow Pages* (under "Windows") for the Pella Window and Door Showroom nearest you or use the "where to buy" store finder at pella.com.

GLASS BREAKAGE/DAMAGE

In the event of glass breakage, consult the Pella Window and Door Showroom nearest you for assistance. Be sure to have your Pella Unit ID Number handy (see page 7). For safety reasons and to ensure optimum performance, we strongly advise you to consult a professional for glass replacement.

Most U.S. and Canadian local codes require the use of tempered glass in doors and other specific applications. Tempered glass can withstand greater impact than ordinary glass, but it is sensitive to scratches. Scratches can cause immediate or delayed breakage. If the glass is tempered, it will break into small, rounded pieces. If tempered glass is broken, likely by law it must be reglazed or replaced with tempered glass. If the glass in the interior hinged glass panel is broken, the entire panel may be easily replaced (not just the glass).

TROUBLESHOOTING: CASEMENT WINDOWS



Architect Series®, Designer Series®, Pella ProLine 450 Series, Pella Impervia®, Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

The sash does not open.

Make sure the sash lock handle is completely disengaged. Turn the crank slightly, and apply slight pressure to the sash near the lock assembly. The sash should snap open. Then open the window, and check the surface of the weatherstripping. You may want to apply a thin coat of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to prevent sticking. **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the window's movement.

The sash does not open smoothly.

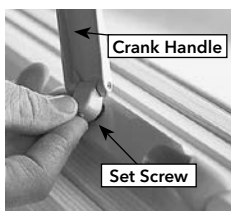
Check to see that the sash guide is clean. Dirt and debris in the track will affect operation. If needed, clean with soapy water or a dry brush (see page 24). You may want to apply a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well). **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the window's movement. If your sash drags (hits the frame), something is not square. Call the Pella Window and Door Showroom nearest you for assistance.

The operator crank comes off.

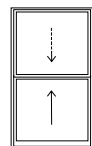
There is a set screw located on the bottom of the crank handle. Tighten it.

The lock handle comes off.

The lock handle is designed to be removable. Push it back into the opening with the handle in the locked position. It should snap back in place.



TROUBLESHOOTING: DOUBLE- OR SINGLE-HUNG WINDOWS



Architect Series®, Designer Series®, Pella® ProLine 450 Series

The sash is hard to open and close.

The sash on some windows slide on a vinyl jambliner or vinyl track in the wood jambliner. Over time, dirt and debris can get on the vinyl liner, making it harder to open and close the sash. Cleaning the liner and applying a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) will make the sash easier to operate. **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the window's movement. Pella double-hung windows tilt for easy cleaning. If these windows are not properly repositioned after washing, they may be difficult to open and close.

Pella Impervia®

The sash is hard to open and close.

The sash will slide inside the frame. Over time, dirt and debris can get in the frame, making it harder to open and close the sash. To remove any deposits – such as grease, oil or stains – that may have come in contact with the weatherstrip, apply a small amount of concentrated fabric cleaner or carpet cleaner – such as Spray-n-Wash®, OxiClean® Fabric Cleaner or Resolve® Carpet Cleaner – to the weatherstrip.

Scrub the cleaner into the weatherstrip with a toothbrush or similar applicator. Continue applying cleaner until the deposits are no longer visible. Rinse the weatherstrip with clean water, and dry with a paper towel. **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the window's movement. Pella Impervia double-hung windows tilt toward the interior of the home/building for cleaning. If these windows are not properly repositioned after washing, they may be difficult to open and close.

Pella 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

The sash is hard to open and close.

Vinyl double-hung and some single-hung windows tilt for easy cleaning. If these windows are not properly repositioned after washing, they may be difficult to open and close.

One cause could be an insecure balance clip, which occurs when the sash balance is not hooked properly to the hole at the tip of the jamb track.

1. Remove the lower sash by pulling it toward you until it's perpendicular to the frame. Lift straight up on one side until the locking pivot bar of the sash is released from the sash balance. Repeat on the other side. Lift the sash up and out of the window frame, then set it aside in a safe location.
2. Using a flathead screwdriver, rotate the balance shoe a quarter-turn to lock the balance's position.
3. Using straight or bent needle-nosed pliers, pull up on the hook until it aligns with the hole at the top of the jamb track, then insert the hook into the hole.

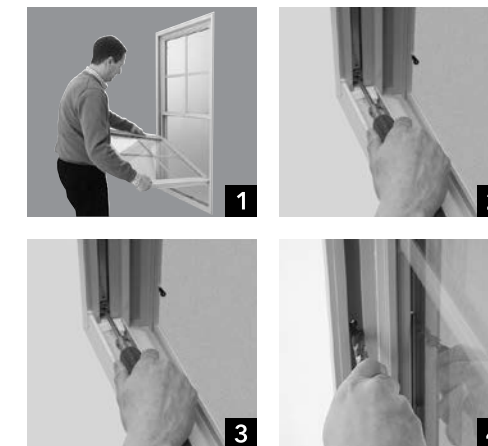
Your window could also be hard to open and close if the pin located at the bottom of the sash is not correctly seated in the balance shoe. This will cause the balance to bind and limit smooth operation of the sash.

To correct this, tilt the window into the horizontal position so the pin can fully seat into the balance shoe. It may be necessary to lift up on one of the sash edges to remove the sash from the frame and reinsert the sash back into the frame. Once the unit is seated at the bottom of the balance shoe, please return the sash to the vertical position.



A vinyl window that makes noise when it's opened or closed could be caused by the adjustment screw rubbing on the balance spring (3) or by the burrs from the installation holes rubbing on the balance spring (4).

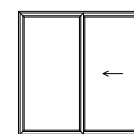
1. Remove the lower sash by pulling it toward you until it's perpendicular to the frame (1). Lift straight up on one side until the locking pivot bar of the sash is released from the sash balance. Repeat on the other side. Lift the sash up and out of the window frame, then set it aside in a safe location.
2. Expose the installation holes by raising or lowering the balance (2).
3. If the screw is rubbing on the balance spring, drive it in three to four clockwise turns so it does not rub. If it's still rubbing, file down the head of the screw with a metal file (3). If the burrs are rubbing on the balance spring, use a 1/2" drill bit to smooth the edges of the holes by hand to remove the burrs (4).



To replace the lower sash, make sure the exterior side is facing up, then insert one sash-locking pivot bar into the bottom of the window, where the balance is the lowest. Repeat on the other side. Push the sash downward until it's perpendicular to the frame. Then tilt it upward and engage the tilt locks at the top. Raise and lower the sash a few times to make sure it operates correctly.

Also, over time, dirt and debris can make it harder to open and close the sash. Cleaning the frame and applying a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) will make the sash easier to operate. **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the window's movement.

TROUBLESHOOTING: SLIDING WINDOWS



Pella® 350 Series, Pella 250 Series, Encompass by Pella®, ThermaStar by Pella®

The sash is hard to open and close.

The sash rolls on a track inside the frame. Over time, dirt and debris can get in or on the track, making it harder to open and close the sash. Remove the sash and check for weld flash (tiny pieces of vinyl). Use a vacuum cleaner with the brush attachment to clean out the debris in the track to make the sash easier to operate.

The sash is hard to remove.

Remove the venting sash. (See page 13 for detailed instructions.)

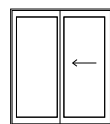
Pella Impervia®

The sash is hard to remove.

On the bottom of the sash are two sets of dual nylon rollers. With needle-nose pliers, gently shift the wheels to the other notch location. This will raise the sash rollers by 1/16", allowing the operating sash to move freely.

FYI NOTE: The roller housing does not have to be removed from the sash to adjust the roller location.

TROUBLESHOOTING: SLIDING PATIO DOORS



Architect Series, Designer Series*, Pella* ProLine 450 Series*

The door latch does not always latch.

The lock strike screws are adjustable. Pop off the cover, loosen the five screws on each strike, and move them to the correct position (where they fit exactly into the rectangular holes on the edge of the panel). Retighten the screws, and snap the covers back on.

The door does not slide smoothly.

There are several possible causes. The track the door slides on may have debris on it, causing it to drag. If so, clean the track below the sliding panel. If this does not work, you may need to adjust the rollers to raise the door clear of the track. Adjust the rollers up or down to make sure that the edge of the movable door is parallel to the side of the door frame. The adjustment holes are located on either side of the movable door, near the bottom. Remove the cap, and use a long-shaft Phillips-head screwdriver to adjust the rollers. Turn the adjustment screw clockwise to raise the end of the door, and turn it counterclockwise to lower it. Replace the plastic caps. Once you adjust the door, you may need to adjust the lock strike screws. See instructions above, under "The door latch does not always latch."

*Pella Impervia**

The door latch does not always latch.

The lock and strike are adjustable. Turn each of the four screws counterclockwise two turns. Adjust the strike up or down as necessary, and tighten the screws. The lock latch is adjustable to the left and right.

The door does not slide smoothly.

There are several possible causes. The track the door slides on may have debris on it, causing it to drag. If so, clean the track below the sliding panel. If this does not work, you may need to adjust the rollers to raise the door clear of the track. Adjust the rollers up or down to make sure the edge of the movable door is parallel to the side of the door frame. The adjustment holes are located on either side of the movable door, near the bottom. Remove the cap, and use a long-shaft Phillips-head screwdriver to adjust the rollers. Turn the adjustment screw clockwise to raise the end of the door, and turn counterclockwise to lower it. Replace the plastic caps. Once you adjust the door, you may need to adjust the lock strike up or down. See instructions above, under "The door latch does not always latch."

Pella 350 Series, Encompass by Pella, ThermaStar by Pella**

The door does not slide smoothly.

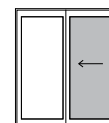
There are several possible causes. The track the door slides on may have debris on it, causing it to drag. If so, simply clean the track below the sliding panel. If this does not work, you may need to adjust the rollers to raise the door clear of the track. Adjust the rollers up or down to make sure that the edge of the movable door is parallel to the side of the door frame. The adjustment screws are located on either side of the movable door, near the bottom. The lower of the two screws is the adjustment screw. Turn the adjustment screw clockwise to raise the end of the door and counterclockwise to lower it.

The door lock doesn't latch. To adjust the keeper, mark its current location with a pen or pencil. Remove all four screws and the keeper from the door frame. Slide the keeper up or down to align with the lock, then replace the screws in their original holes. Shut the door and operate the lock to ensure correct placement of the keeper.

FYI NOTE: A #2 Phillips-head screwdriver with an 8" shaft is recommended for making adjustments.



TROUBLESHOOTING: SLIDING PATIO SCREEN DOORS



Architect Series, Designer Series*, Pella* ProLine 450 Series, Pella Impervia*, Pella 350 Series, Encompass by Pella*, ThermaStar by Pella**

The screen door does not slide smoothly.

The screen should move smoothly on its track. Apply a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to the track if necessary. **Do not use oily lubricants;** they attract dust and grime, which will eventually restrict the door's movement. The screen rollers can be adjusted by turning the screws located on the top of the door. If the screen door is tight on the bottom, turn the adjusting screws clockwise to raise the door. If the screen door is too tight at the top, turn the adjusting screws counterclockwise to lower the door. Level the screen door so the edge aligns with the lock jamb of the frame.



FYI NOTE: Depending on the model of your door, the adjusting screw will be located on either the lower inside (1) or lower outside of the frame (2).

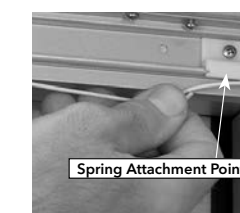
Architect Series, Designer Series

The self-closing screen door does not automatically close.

If the spring located at the top of the door is not attached, the door will not close automatically. If this is the case, call the Pella Window and Door Showroom nearest you.



WARNING: Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.



TROUBLESHOOTING: HINGED PATIO DOORS



Architect Series, Designer Series

All service adjustments to Pella hinged doors should be performed by a professional. Should you need additional assistance, call the Pella Window and Door Showroom nearest you.

BETWEEN-THE-GLASS SLIMSHADE® BLINDS OR FABRIC SHADES

Designer Series

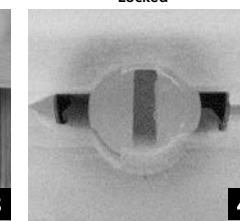
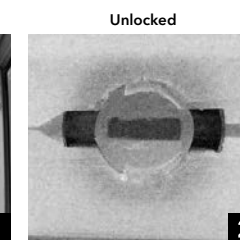
The blind or shade is not level.

There are several ways to correct this: To level the blind or shade, slowly raise and lower it completely a few times to allow the cord to arrange itself on the spool. If after raising and lowering the blind or shade it still does not appear level, lower it fully and gently pull down on the bottom rail to ensure the cord is fully extended and has no kinks in it. Your fabric shade may have some of the top pleats caught in a top-rail end cap (the plastic piece at the top of the screen guide). Gently pulling on the bottom rail will remove the pleats from the cap.

Alternatively, make sure the bottom rail is aligned with the fabric. If the rail and fabric are not in line, the shade will not be level. To rectify, first unlock the cord lock on the bottom of the rail (1 and 2). The bottom rail will now pivot freely to allow for manual leveling (3). Once leveled, raise the shade completely and relock the cord lock (4).

Then close the hinged glass panel and operate the blind or shade. If the blind is still not level, it must be replaced.

For tilt-only blinds, make sure the dark gray foam pads that provide stability during shipping have been removed from the top and bottom of the blind. If after trying these fixes your blind or shade is still not level, it must be replaced. Contact your local Pella sales representative.



ROLSCREEN® WINDOW SCREENS

Architect Series®, Designer Series®

The screen comes out of the track.


These screens are designed to automatically release themselves from the guides to absorb shock. If the screen cloth comes out of the guide, push the cloth to the exterior, and gently operate the screen up and down three or four times to realign it. If it does not retract, close the window. Release the pull bar, and hold it just above the sill. Push the screen cloth completely out of both guides, the entire length of the guides. Make sure the cloth is behind the end cap (the plastic piece at the top of the screen guide). Return the pull bar to the stored position to reengage the screen. Gently operate the screen three or four times to realign it. If the pull bar comes out of the screen guide, pull the screen down 12" to 20" and tilt the pull bar between the guides. Insert one end in each guide. Retract the screen as described above.




If the screen locks up while retracting, pull it toward the lock/latch side to release the spring.

If the screen locks in the latched position, carefully apply pressure to the screen cloth to release the spring.

If the screen does not retract fully after being in the latched position for an extended period of time, open and close it a few times to return the spring to the original tension.

 **WARNING:** Screen will not stop child or pet from falling out of window. Keep child or pet away from open window.

 **CAUTION:** Operating a retractable screen may result in a static discharge. A static discharge in the presence of a flammable substance such as an aerosol lubricant could cause ignition. To avoid injury and/or property damage, do not use any flammable substance on a retractable screen.

REDUCING ROOMSIDE CONDENSATION

Understanding condensation.

Moisture is present in all homes, but when it becomes excessive, homeowners need to take an active role in protecting their investment.

Humidity and condensation.

Humidity is a measure of the amount of water vapor in the air.

Condensation is water that forms when warm, moist air hits a cooler surface. In homes, it might occur on surfaces such as windows, mirrors, bathroom walls and cold-water pipes.

When interior humidity levels are high, relative to cooler outdoor temperatures, condensation can form on the cooler surfaces in a room – often the glass in a window or door. While windows and doors do not cause condensation, they may be one of the first places it shows up.

What causes condensation?

Excess humidity is typically the cause of condensation. There are many sources for moisture in a home: showers, dishwashers, clothes washers and dryers, house plants, humans and pets, among others. In newly built homes, additional moisture may escape from building materials, such as lumber, plaster and masonry, for up to three heating seasons, even with proper airflow and temperature management.

Older vs. newer homes.

Condensation may be less of an issue in older homes if conditions allow for more air exchange between indoors and out, often from around aging, loose or poorly installed windows and doors. However, the tradeoff is higher energy bills. When replacement windows are properly installed and the airflow around the window decreases, condensation may form on the glass of the new windows.

Newer homes, on the other hand, are more airtight and energy-efficient. Many have vapor barriers – plastic within the wall cavity reducing moisture passage in either direction. With tighter-fitting doors and windows, vapor barriers and increased insulation, energy costs are lower – but humidity levels must be monitored more closely.

No matter when your home was built, the key is to strike the right balance when it comes to humidity levels. Air that's too dry can cause furniture to dry out and crack, joints and studs to shrink and twist, and paint and plaster to crack. Excessive moisture in the home can cause paint to peel and insulation to deteriorate, and condensation on windows and doors can damage sills and trim.

Measuring and controlling humidity.

To determine how much humidity is present in your home, you can purchase a humidity gauge from a hardware store or home center. Invest in a quality unit for greater potential accuracy in assessing humidity levels, or consult an expert. Another way to monitor the interior humidity level is to watch your windows. When interior condensation begins to form, wipe it off. To reduce the humidity, open windows, run exhaust fans or dehumidifiers, or minimize sources of moisture.

Maximum Recommended Humidity Levels	
Outside Temperature	Inside Humidity
20° F to 40° F	Not over 40%
10° F to 20° F	Not over 35%
0° F to 10° F	Not over 30%
-10° F to 0° F	Not over 25%
-20° F to -10° F	Not over 20%
-20° F or below	Not over 15%

Based on engineering studies at 70° F conducted at the University of Minnesota Laboratories.

What if I have cold-weather, between-the-glass condensation on Designer Series® windows and doors?

Many of the same conditions that can cause roomside condensation can cause between-the-glass condensation on Designer Series windows and doors. Read the section on "Reducing roomside condensation" on page 36 to better understand why this occurs and how to eliminate or reduce it. Check the following things to improve this condition:

- Make sure the hinged glass panel shipping spacers have been removed.
- Make sure the hinged glass panel is fully latched. To verify, push hinged panel at each latch point. (See page 17 to locate latches.)

What if I have warm-weather, between-the-glass condensation on Designer Series windows and doors?

Condensation may occur between the glass on Designer Series windows and patio doors if the inside air is very cool from air conditioning and the humidity outside is extremely high.

To improve this, make sure there are no air vents blowing directly on the window or door, or raise the indoor temperature slightly.

Exterior condensation.

Exterior condensation on windows occurs primarily in the mornings when days are warm and humid, but nights are cool. Typically, it clears as the day warms. Exterior condensation can occur at any time, especially in warm, humid climates where interior temperatures are cooler than outdoor conditions. Exterior condensation means that windows are doing their job properly. However, if you spot excessive condensation on the inside of your windows, check your inside humidity – it may be a signal of potential problems if not addressed.

Tips for wintertime moisture management.

- Open window coverings – such as blinds, shades, drapes and curtains – during daylight hours to increase airflow over the glass.
- Closely monitor the furnace humidifier and any other humidifying devices.
- Be sure louvers and vents for the attic, basement and/or crawl space are open, adequately sized and cross-ventilated.
- Run exhaust fans for kitchen, bathroom and laundry rooms for longer periods.
- Make sure exhaust fans vent directly outside, not into attics or crawl spaces.
- Be sure chimneys are free and clear so moisture in combustion gases can escape.
- Follow the manufacturers' instructions for venting gas appliances. In most cases, that will mean directing vents to the outside of the home.
- Make sure your furnace is in proper working order and is serviced regularly.
- Store firewood outside or in the garage – as wood dries, it gives off moisture.
- Install energy-efficient windows, such as those that have earned the ENERGY STAR®.

For more information on condensation in the home, consult the following:

- Home Moisture Problems (Series 1437), published by the Oregon State University Extension Services, <http://extension.oregonstate.edu/catalog/>. Search for "condensation."
- The University of Minnesota Extensions: <http://extensions.umn.edu>. Search for "condensation."
- Window and Door Manufacturers Association: wdma.com. Search for "condensation."
- University of Wisconsin Extensions: uwex.edu. Search for "condensation."
- Efficient Windows Collaborative: efficientwindows.org. Search for "condensation."

FYI NOTE: Condensation that forms in between the panes of insulating glass is not considered "roomside" condensation. Instead, this is an indication of glass seal failure. Contact your local Pella sales representative if this occurs.



ADDITIONAL INFORMATION

EIFS/Synthetic Stucco

Pella® products should not be used in barrier wall systems that do not allow for proper management of moisture within the wall systems, such as Exterior Insulated Finish Systems (EIFS) (also known as synthetic stucco) or other nonwater-managed systems. Except in the states of Arizona, California, Colorado, Nevada, New Mexico and Utah. Pella makes no warranty of any kind on and assumes no responsibility for Pella windows and doors installed in barrier wall systems. In the states listed above, the installation of Pella products in barrier wall or similar systems must be in accordance with Pella's instructions for that type of construction.

NFRC Label

The National Fenestration Rating Council (NFRC) develops and administers energy-related rating and certification programs, and their goal is to serve the public by providing fair, accurate and credible information on fenestration performance. Pella products labeled with the NFRC Energy Performance label are rated in accordance with NFRC standards. This allows for direct comparisons with other NFRC-labeled products. NFRC ratings are based on a combination of computer simulations and physical testing of product samples. For details go to www.NFRC.org.

 National Fenestration Rating Council CERTIFIED	Pella Corporation 	
	Designer Series® Casement 5/8" InsulShield® Insulating Glass Vent Clear Hinged Glass Panel Argon-Filled	
ENERGY PERFORMANCE RATINGS		
U-Factor (U.S./I-P)	Solar Heat Gain Coefficient	
0.29	0.25	
ADDITIONAL PERFORMANCE RATINGS		
Visible Transmittance		
0.42	--	
<small>Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. For more information, call (641) 621-3114 or visit Pella's web site at www.pella.com or visit NFRC's web site at www.nfrc.org.</small>		
<small>Meets or exceeds C.E.C. Air Infiltration Standards</small>		



PELLA WARRANTY

Before purchasing, installing or using Pella products, read the complete Pella warranty at pella.com/warranty.

NOTES





A commitment to care for our world.

When we're making our energy-efficient windows and doors – and even when we're not – Pella helps protect our environment in communities across the country through forest stewardship, pollution prevention, waste management and other important green initiatives. Not only because it's good for business. But because it's the right thing to do. And, frankly, it's just part of the way we've always done things at Pella. When you choose Pella® windows and doors, you're making an environmentally responsible purchase you can feel good about.



Want to learn more about Pella windows and doors? Call us at **866-209-4260** or visit pella.com.



Always read the Pella limited warranties before purchasing or installing Pella products. See written warranties for complete details, including specific labor and component warranty periods, at pella.com/warranty.



Pella Corporation is a proud volunteer partner in the U.S. Environmental Protection Agency and the Department of Energy's ENERGY STAR® program to promote the use of high-efficiency products.

Connect with Pella:

