



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 more than 80 years. With proper installation, care and operation, your Pella windows and doors will provide years of enjoyment. Read this manual thoroughly during your first few days of ownership so you feel comfortable operating, cleaning and maintaining your Pella products. Then refer to it in the future should a question arise.

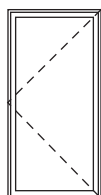
Remember, some Pella windows and doors have optional convenience features you may add. Like Pella's exclusive snap-in between-the-glass cordless blinds and shades, removable between-the-glass grilles, Vivid View® high-transparency screens, and Pella Rolscreen® retractable casement window and patio door 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 exclusive options available for your Pella products, help is as close as your local Pella Window and Door Showroom or pella.com. A commitment to service that's as strong as our windows and doors. Just another way Pella is creating a better view.

HOW TO USE YOUR PELLA® OWNER'S MANUAL

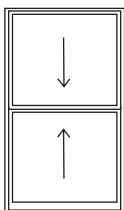
OVERVIEW

The *Pella Owner's Manual* contains specific information for each style of product. Use the drawings and descriptions next to each section of the Table of Contents to help locate the information you need. For the most up-to-date owner's manual and warranty for all Pella products, go to pella.com.



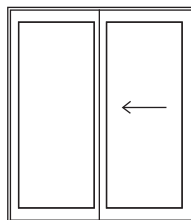
CASEMENT AND AWNING WINDOWS

Have one sash that hinges open with a crank.



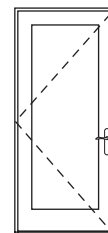
DOUBLE-HUNG WINDOWS

Have two sash that slide up and down.



SLIDING PATIO DOORS

The operable door slides open and closed – no hinges.



HINGED PATIO DOORS

The operable door(s) swing open and closed.

CASEMENT AND AWNING WINDOWS



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DOUBLE-HUNG WINDOWS

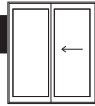


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SERVICE MADE SIMPLE

In the event you need service assistance, please contact the store where your Pella products were purchased. Should you need additional assistance, contact Pella Customer Service by phone at 800-374-4758 or via our Web site at pella.com. Please have the Unit ID Number for your window or door ready when you contact us. For the specific location of Pella's Unit ID Number on each product, **please see pages 7.6 and 7.7.**

SLIDING PATIO DOORS



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PELLA WARRANTY

Inserted in back pocket or go to <http://warranty.pella.com>.

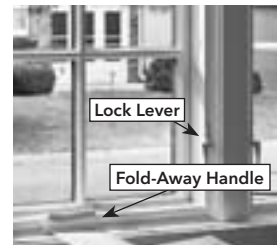
CASEMENT AND AWNING WINDOWS

OPERATION

Pella® casement windows feature a convenient locking system – a single, easy-to-reach lock lever operates both locks on casements. **To open the windows, just lift the lock lever to unlock the window, then pull out the fold-away handle and rotate it.** 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; it will ensure the window is properly sealed and will help prevent outside moisture from collecting on the wood, which could lead to the sash warping.

Awning windows are similar to casement windows turned on their sides. Awning windows are designed to be opened to a 45° angle or less. Large awning windows are designed to be opened 8".

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.



SCREENS

Flat screens (full fiberglass or Vivid View® high-transparency screens*)

Architect Series® 850 and Pella (ProLine) 450

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.

Installing the screen from the interior of the house/building 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® 750 windows with snap-in between-the-glass blinds or shades

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 window fashions.



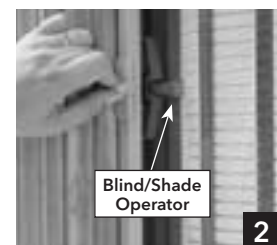
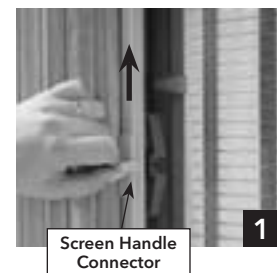
WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



CAUTION: 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.



Designer Series 750



* GORE™ inLighten® Transparent Screen Fabric.

Rolscreen® window screens

Architect Series® 850 and Designer Series® 750

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.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



BLINDS, SHADES AND DECORATIVE PANELS

Snap-in between-the-glass window fashions

Designer Series 750

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.

Fabric shades

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

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.

Decorative panels

Decorative panels do not "operate." To change or remove decorative panels, see the "Changing snap-in between-the-glass window fashions" section on the next page.



Opening the hinged glass panel

Designer Series® 750

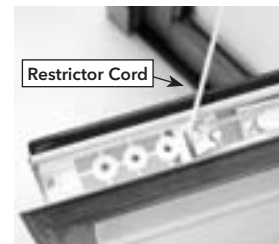
Find the latch releases, located on one side of the unit (positioned at each end of that side). Slide each latch along the channel until you feel it release. (Note: There may be more than two latch points, depending on product size.) Then gently pull on the wood perimeter frame and open the panel. To 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.)



FYI NOTE: It's important when closing the hinged glass panel that you don't position the latch release or operator directly over any of the interior latches to ensure smooth operation.

! 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.

! CAUTION: 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 1.4 under "Cleaning the glass in all Pella products."



Changing snap-in between-the-glass window fashions

Designer Series 750

Open the hinged glass panel (see above), and if present, remove the grilles (see instructions on page 1.4). To remove the existing window fashion, first find the plastic tab at the top corner of the panel. Use it to grab the window fashion and pull it toward you (1). Then slide the side opposite the plastic tab over and lift it off of the mounting pin. To install the new window fashion, 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/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.

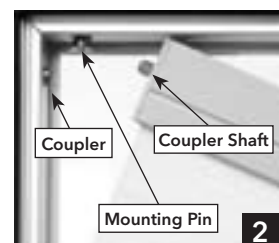
FYI NOTE: It's important to remember when reinstalling the shade to have the operator positioned opposite the shade. If the shade is in the "up" position, the operator must be all the way down for successful operation.



Change your mind; change your window fashions.

If your window has a hinged glass panel (Designer Series 750 products), you may change or remove the window fashions between the glass. You could replace your snap-in between-the-glass fabric shades with Slimshade® blinds or add grilles or a decorative panel – it's a great way to give your windows a different look. For more information, contact the Pella Window and Door Showroom nearest you.

NOTE: To order the correct size for your snap-in between-the-glass window fashions 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).



GRILLES

Removable grilles

Architect Series® 850 and Pella® (ProLine) 450

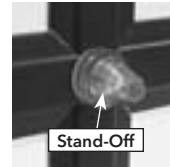
Grasp the end of one removable interior grille bar at a time, and gently pull until the end of the bar disengages. Repeat until all grille bars are removed. To reinstall the grilles, set them in place by aligning the clips on the brass-colored tacks, then gently press on the end of each bar until it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

Designer Series® 750

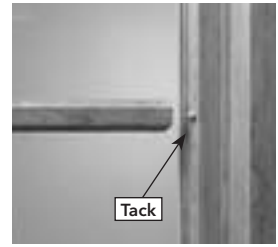
Open the hinged glass panel (see page 1.3). To remove an existing removable grille, start at the bottom of the window and grasp the end of the grille next to the grille clip and gently pull. To install a grille, start at the top of the window and align each clip with the hash marks printed in the hinged glass panel. Press gently on the clip to snap it onto the frame.



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.



Stand-Off



Tack



Hash Marks

Permanent grilles

Architect Series 850 and Pella (ProLine) 450

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

CLEANING

Cleaning the glass in all Pella products

To wash the glass:

1. 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. Or you may use an ammonia-free glass cleaner such as Windex® (clear liquid) or Sparkle® (purple liquid). Feel free to be generous with the amount of cleaner you apply, 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.



CAUTION: Do not use glass cleaners that are ammonia- or alcohol-based. They may leave streaks or produce a film that attracts moisture or dust.

Spot-cleaning stubborn materials on all 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 small amount of a nonabrasive cleaner such as Bar Keepers Friend® (SerVaas Laboratories) to a clean, wet cloth – or apply a solvent such as acetone or mineral spirits to a clean, dry, lint-free microfiber cloth or paper towel.
2. Rub on the areas of glass that need spot-cleaning. Avoid getting any cleansers or 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 above.



CAUTION: 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 or the standard Low-E glass (located inside the Designer Series® hinged glass panel)

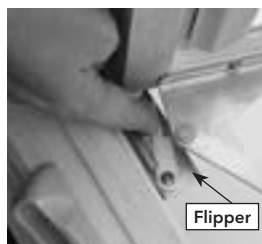
Occasionally, a mark may appear on the interior of Dual Low-E glass due to metal coming in contact with the surface. Most often, this is not a scratch and can be removed using the following instructions:

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 on page 1.4 under “Cleaning the glass in all Pella products.”

NOTE: Some marks may require repeating this process.

Cleaning the exterior glass from the interior

Use the casement handle to crank the window wide open (on 29"-wide frame units, rotate the egress flipper). You'll notice the sash moves toward the center of the frame a full 4" – you can easily reach through the opening between the sash and the frame to wash the exterior glass from inside the home.



Cleaning egress windows

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.

Cleaning the exterior aluminum cladding

EnduraClad® exteriors

Clean the exterior surface with warm, soapy water. Stubborn stains and deposits may be removed with mineral spirits. If your exterior cladding becomes dull, you can use a quality car cleaner and wax to restore the shine. Should you need it, touch-up paint is available at the Pella Window and Door Showroom nearest you.



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

Cleaning flat screens

Fiberglass screens

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



Vivid View® high-transparency screens*

To clean Vivid View screens, remove them from your windows and hose them off with water. Note that the ultrafine screen material is more delicate than fiberglass or aluminum screens and should be handled with care.

* GORE™ inLighten® Transparent Screen Fabric.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



CAUTION: Do not power-wash.

Cleaning Rolcreen® window screens

Architect Series® 850 and Designer Series® 750

Rolcreen 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.



NOTE: Since Rolcreen window screens are spring-operated, be sure to follow operating instructions (see page 1.2) when operating them.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



CAUTION: Do not power-wash.

Cleaning hardware finishes

A soft cloth and mild cleaner may be used on most hardware finishes for Pella® windows.



NOTE: Oil-Rubbed Bronze is a living finish that will develop its own unique patina with use, care and handling.



CAUTION: To avoid damaging the finish, do not use cleaners on Oil-Rubbed Bronze hardware. Simply wipe with a soft cloth.

Cleaning the hinged glass panel and between-the-glass grilles

Designer Series 750

First, raise the blind or shade completely. Then open the hinged glass panel (see page 1.3).

Before cleaning, if your window has snap-in between-the-glass grilles*, remove the grilles (see page 1.4) and set them aside. Then snap out your between-the-glass fabric shades or blinds (see page 1.3). To clean the glass surfaces, use a vinegar-based solution (as previously described on page 1.4) and a squeegee or soft, lint-free towel (paper or cloth). To remove any grease or sealant on the glass, use mineral spirits sparingly, then wash with a vinegar-based 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.)

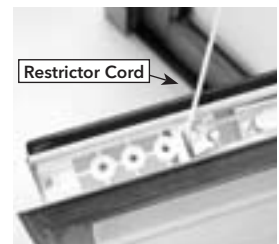
* If between-the-glass grilles or interior edge of the hinged glass panel needs cleaning, wipe with a damp cloth.



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. The cord should only be detached by a qualified service technician when performing service-related procedures.



CAUTION: 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 1.4 under "Cleaning the glass in all Pella products."



Cleaning between-the-glass Slimshade® blinds

Designer Series® 750

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 1.3). 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 750

For between-the-glass shades, begin by opening the hinged glass panel (see page 1.3). 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.



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 between-the-glass decorative panels

Designer Series 750

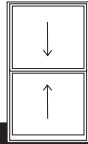
Always clean your decorative panels in a reasonably cool, dry area. Do not clean them in the hot sun or elevated temperatures.

Open the hinged glass panel on your window (see page 1.3), and then snap out your decorative panels (see page 1.3). Remove dust and dirt with a soft cloth or a sponge dipped in a solution of mild soap and water. You can also use a 50:50 solution of isopropyl alcohol and water. Next, rinse thoroughly with lukewarm water and carefully blot dry with a soft, damp cloth. Rubbing the panels with a dry cloth can scratch the material. Never use scrapers or squeegees on the panels.



CAUTION: Do not allow panels to soak in water. Only use the cleaning solutions listed above. **NEVER** use scouring compounds, sandpaper, gasoline, benzene, acetone, carbon tetrachloride, de-icing fluids, mineral spirits, lacquer thinner, Armor All®, Lysol®, Simple Green®, wood wash, MEK or other strong solvents, WD-40®, vegetable oil, Lime-A-Way®, or highly alkaline or abrasive cleaning agents. Do not power-wash.

DOUBLE-HUNG WINDOWS



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 either 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 sash a few inches. (If you have half screens, only the lower sash can be opened with the screen in place on Designer Series® 750 products.) **To close the window**, slide the upper and lower sash back into position, then lock the window. Engaging the locks will automatically align and center the sash together for a tight seal.



WARNING: When the window is not locked, the sash are not secured and can tilt under pressure. Use caution when children or pets are around open windows. Screens are not designed to retain children or pets.



Sash Locks

(Styles vary by product type.)

SCREENS

Flat screens (half)

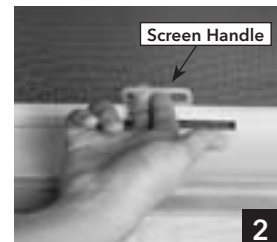
Architect Series® 850 and Designer Series 750

Removing a double-hung 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 double-hung 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. Check the angled weatherstrip at the bottom of Architect Series 850 or Designer Series 750 screens to make sure they come in contact with the sill.

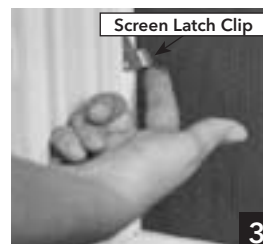


1



Screen Handle

2



Screen Latch Clip

3



4



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



CAUTION: To help avoid scratching the wood window frame, make sure the screen latches are fully retracted when removing or installing screens.

Flat screens (full)

Architect Series® 850, Designer Series® 750 and Pella® (ProLine) 450

Removing a double-hung 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.

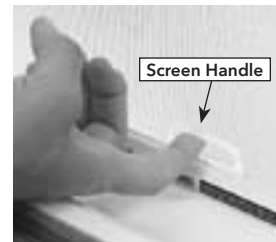
Installing a double-hung full screen from the interior of the building requires two hands. First, fully raise the lower window sash. Grasp the screen handle with one hand, and use the other hand to carefully guide the screen through the open window to the outside. Make sure the screen handle and screen latch clips are facing the interior, and then position the screen in the top of the window frame first, then pull into the bottom of 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 aluminum cladding or wood, make sure the latches are aligned with the slots and are fully retracted when installing or removing screens.**



NOTE: Screens on double-hung windows will not interfere with cleaning the exterior surface of the glass and do not need to be removed.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



BLINDS, SHADES AND DECORATIVE PANELS

Snap-in between-the-glass window fashions

Designer Series 750

Raise-and-lower Slimshade® blinds

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

Fabric shades

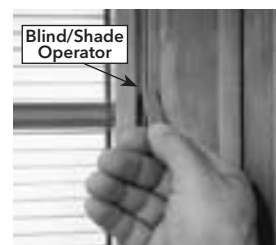
The shade operator will raise and lower your fabric shade. Slide the operator up and down to the desired point.

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.

Decorative panels

Decorative panels do not “operate.” To change or remove decorative panels, see the “Changing snap-in between-the-glass window fashions” section on page 2.3.



Opening the hinged glass panel

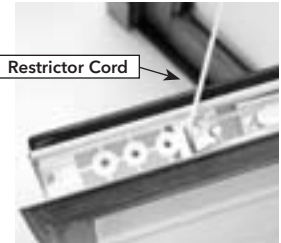
Designer Series® 750

Windows should be closed and locked to prevent product damage. First, open the hinged glass panel on the upper sash. Locate the latch release, and slide it horizontally across until you feel the latch release. (Note: There may be more than one latch point, depending on product size.) Then pull on the interior wood perimeter frame and open the panel. Repeat the process with the lower sash. Open the hinged glass panel by sliding the latch release horizontally across the channel until the latch releases. To close the hinged glass panel, gently push the panel until it snaps shut at the latch locations – much the same way you would with a glass stereo cabinet door. Listen for a click at each latch point.

FYI NOTE: It's important when closing the hinged glass panel that you don't position the latch release or operator directly over any of the interior latches to ensure smooth operation. Failure to do this will result in improper latching and/or failure to close.

! 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.

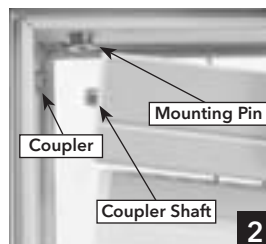
! CAUTION: When the hinged glass panel is opened, there may be a Low-E coating on the inside of the glass. This coating will feel slightly different. Occasionally, a mark may appear on this Low-E surface due to metal coming into contact with the surface. Most often, this is not a scratch and can be removed using the instructions found on 2.4 under "Cleaning the glass in all Pella products."



Changing snap-in between-the-glass window fashions

Designer Series 750

Open the hinged glass panels (see above), and if present, remove the grilles (see instructions on page 2.4). 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 fashion, 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; replace the grilles, if needed; and close the hinged glass panels.



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 window fashions.

If your window has a hinged glass panel (Designer Series 750 products), you may change or remove the window fashions under the glass as you wish. You could replace your snap-in between-the-glass fabric shades with Slimshade® blinds or add grilles or a decorative panel – it's a great way to give your windows a different look. For more information, contact the Pella Window and Door Showroom nearest you.

NOTE: To order the correct size for your snap-in between-the-glass window fashions 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).

GRILLES

Removable grilles

Architect Series® 850 and Pella® (ProLine) 450

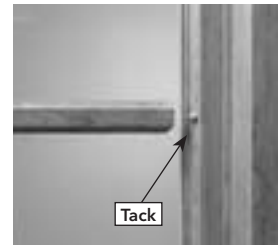
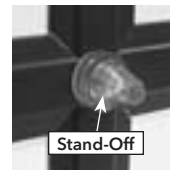
Grasp the end of one removable interior grille bar at a time, and gently pull until the end of the bar disengages. Repeat until all grille bars are removed. To reinstall the grilles, set them in place by aligning the clips on the brass-colored tacks, then gently press on the end of each bar until it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

Designer Series® 750

Open the hinged glass panel (see previous page) – it hinges on the bottom. 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, then gently pull. To install a grille, start at the top of the window and align each clip with the hash marks printed in the hinged glass panel. Press gently on the clip to snap it onto the frame.



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.



Permanent grilles

Architect Series 850 and Pella (ProLine) 450

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

CLEANING

Cleaning the glass in all Pella products

To wash the glass:

1. 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. Or you may use an ammonia-free glass cleaner such as Windex® (clear liquid) or Sparkle® (purple liquid). Feel free to be generous with the amount of cleaner you apply, 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.



CAUTION: Do not use glass cleaners that are ammonia- or alcohol-based. They may leave streaks or produce a film that attracts moisture or dust.

Spot-cleaning stubborn materials on all 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 small amount of a nonabrasive cleaner such as Bar Keepers Friend® (SerVaas Laboratories) to a clean, wet cloth – or apply a solvent such as acetone or mineral spirits to a clean, dry, lint-free microfiber cloth or paper towel.
2. Rub on the areas of glass that need spot-cleaning. Avoid getting any cleansers or 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 above.



CAUTION: 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 or the standard Low-E glass (located inside the Designer Series® hinged glass panel)

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 in all Pella® products."

NOTE: Some marks may require repeating this process.

Cleaning the exterior glass from the interior

Architect Series® 850 and Architect Series 850 Precision Fit® windows

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 back side 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.

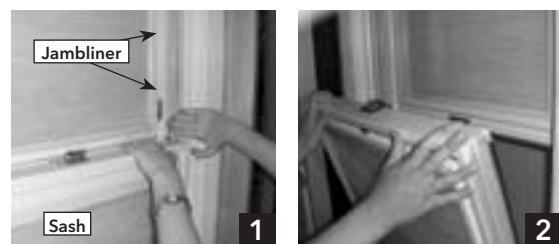
Finally, close and lock the window.



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 sash to their normal operating positions.

Designer Series 750, Designer Series 750 Precision Fit and Pella (ProLine) 450 double-hung windows

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.

Cleaning the exterior aluminum cladding

EnduraClad® exteriors

Clean the surface with warm, soapy water. Stubborn stains and deposits may be removed with mineral spirits. If your exterior cladding becomes dull, you can use a quality car cleaner and wax to restore the shine. Should you need it, touch-up paint is available at the Pella Window and Door Showroom nearest you.



CAUTION: 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 flat screens

Standard fiberglass screens

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

Vivid View® high-transparency screens*

To clean a Vivid View screen, simply remove it and hose it off with water. Note that the ultrafine screen material is more delicate than fiberglass or aluminum screens and should be handled with care.



* GORE™ inLighten® Transparent Screen Fabric.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



CAUTION: Do not power-wash.

Cleaning hardware finishes

A soft cloth and mild cleaner may be used on most hardware finishes for Pella® windows.



NOTE: Oil-Rubbed Bronze is a living finish that will develop its own unique patina with use, care and handling.



CAUTION: To avoid damaging the finish, do not use cleaners on Oil-Rubbed Bronze hardware. Simply wipe with a soft cloth.

Cleaning the hinged glass panel and between-the-glass grilles

Designer Series® 750

First, raise the blind or shade completely open. Then open the hinged glass panel (see page 2.3). Before cleaning, if your window has snap-in between-the-glass grilles*, remove the grilles and set aside (see page 2.4). To clean the outside glass surfaces, use a vinegar-based solution (as previously described on page 2.4) and a squeegee. To remove any grease or sealant on the glass, use mineral spirits sparingly, then wash with a vinegar-based 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, 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.)

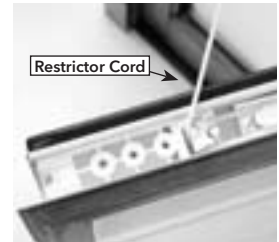
* If between-the-glass grilles or interior edge of the hinged glass panel needs cleaning, wipe with a damp cloth.



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. The cord should only be detached by a qualified service technician when performing service-related procedures.



CAUTION: 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 2.4 under "Cleaning the glass in all Pella products."



Cleaning between-the-glass Slimshade® blinds

Designer Series 750

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 2.3). 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 750

For between-the-glass shades, begin by opening the hinged glass panel (see page 2.3). 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.



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 between-the-glass decorative panels

Designer Series 750

Always clean your decorative panels in a reasonably cool, dry area. Do not clean them in the hot sun or elevated temperatures.

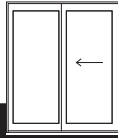
Open the hinged glass panel (see page 2.3) on your window, and then snap out your decorative panels (see page 2.3). Remove dust and dirt with a soft cloth or a sponge dipped in a solution of mild soap and water. You can also use a 50:50 solution of isopropyl alcohol and water. Next, rinse thoroughly with lukewarm water and carefully blot dry with a soft, damp cloth. Rubbing the panels with a dry cloth can scratch the material. Never use scrapers or squeegees on the panels.



CAUTION: Do not allow panels to soak in water. Only use the cleaning solutions listed above. **NEVER** use scouring compounds, sandpaper, gasoline, benzene, acetone, carbon tetrachloride, de-icing fluids, mineral spirits, lacquer thinner, Armor All®, Lysol®, Simple Green®, wood wash, MEK or other strong solvents, WD-40®, vegetable oil, Lime-A-Way®, or highly alkaline or abrasive cleaning agents. Do not power-wash.

SLIDING PATIO DOORS

OPERATION



Locking system

Architect Series® 850 and Designer Series® 750

Thumbturn Lock

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.



Pella® (ProLine) 450

The thumbturn lock is located behind the door handle. To lock the door, move the door to a fully closed position. Turn the thumbturn lock to the vertical position to engage the lock. To unlock the door, turn the thumbturn lock in the opposite direction to a horizontal position.

Footbolt lock

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

Pella sliding patio screen doors are hung from the top of the screen. This will provide years of easy operation because dirt and debris will not build up in the top track like they can on a patio screen door that rides on the bottom track.

Sliding patio screen doors

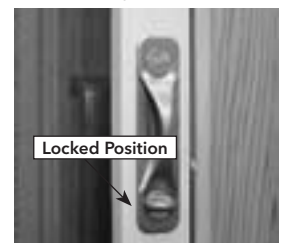
Architect Series 850 and Designer Series 750

Architect Series 850 and Designer Series 750 patio screen doors are spring-loaded and should close automatically after the closing motion is started. If yours doesn't, make sure the spring is attached at the top (see page 7.2).

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.

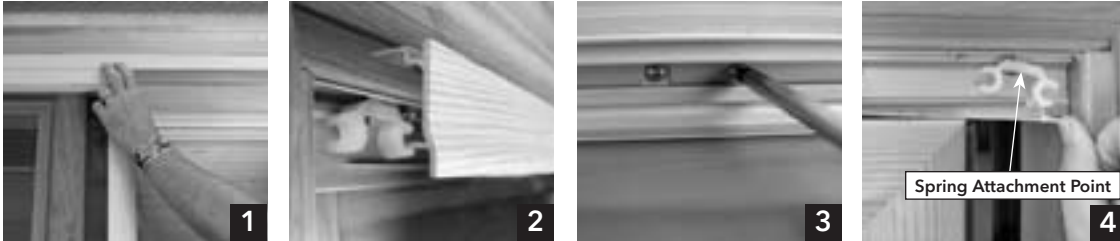
To lock and unlock your sliding patio screen door, turn the knob located directly beneath the handle.

**Architect Series and
Designer Series**



Turn knob to lock and unlock.

To remove an Architect Series® 850 or Designer Series® 750 sliding screen door for storage, first locate the interior track 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

The lock on Pella (ProLine) 450 sliding patio screen doors is operated manually. Push the lever down to lock and up to unlock.

To remove Pella (ProLine) 450 screen doors, remove the two Phillips-head screws located at the top of the screen. Tilt the top portion of the screen away from the sliding door, and lift the screen out of the sill frame track.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



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.

Pella (ProLine) 450



Lock: slide the lever down.
Unlock: slide the lever up.

Rolscreen® retractable patio screen doors

Architect Series 850 and Designer Series 750

This 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:

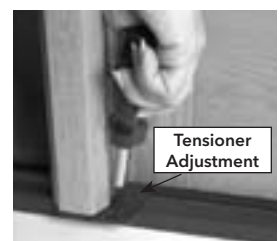
To adjust the Rolscreen tension, insert a flat-blade screwdriver into the tensioner adjustment slot at the bottom of the Rolscreen housing. Turn in the direction of the arrow.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



Screen Latch



Tensioner Adjustment

BLINDS, SHADES AND DECORATIVE PANELS

Snap-in between-the-glass window fashions*Designer Series® 750***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.

Fabric shades

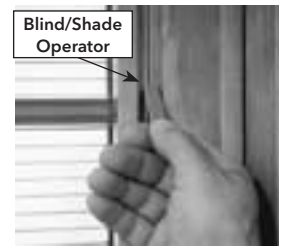
The shade operator will lower and raise your fabric shade. Slide the operator up and down to the desired point.

Tilt-only Slimshade blinds

Tilt-only blinds can be opened and closed 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.

Decorative panels

Decorative panels do not “operate.” To change or remove decorative panels, see the “Changing snap-in between-the-glass window fashions” section on page 3.4.

**Opening the hinged glass panel***Designer Series 750*

Find the side latch releases, located on one side of the unit (positioned at each end of that side). Slide each latch until you feel it release. Do the same with the bottom latch release, bringing it vertically up the channel until the latch releases. (Note: There may be more than two latch points, depending on product size.) Then gently pull on the wood perimeter frame and open the panel. To close the hinged glass panel, gently push the panel until it snaps shut at the latch locations – 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 the blind/shade operator.)



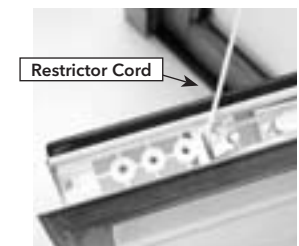
NOTE: It's important when closing the hinged glass panel that you don't position the latch release or operator directly over any of the interior latches to ensure smooth operation.



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.



CAUTION: 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 3.5 under “Cleaning the glass in all Pella products.”



Changing snap-in between-the-glass window fashions

Designer Series® 750

Open the hinged glass panel (see page 3.3), and if present, remove the grilles (see instructions on this page). To remove the existing window fashion, 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 of the blind or shade opposite the plastic tab over and lift it off of the mounting pin. To install the new window fashion, 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; replace the grilles, if needed; and close the hinged glass panel.



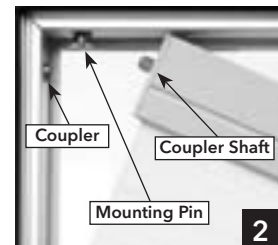
NOTE: It's important to remember when reinstalling the shade to have the operator positioned opposite the shade. If the shade is in the "up" position, the operator must be all the way down for successful operation.



Change your mind; change your window fashions.

If your patio door has a hinged glass panel (Designer Series 750 products), you may change or remove the window fashions under the glass as you wish. You could replace your snap-in between-the-glass fabric shades with Slimshade® blinds or add grilles or a decorative panel – it's a great way to give your patio door a different look. For more information, contact the Pella Window and Door Showroom nearest you.

NOTE: To order the correct size for your snap-in between-the-glass window fashions 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).



GRILLES

Removable grilles

Architect Series® 850 and Pella® (ProLine) 450

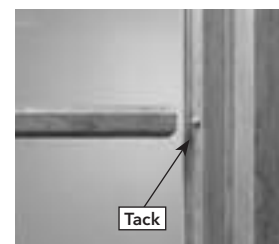
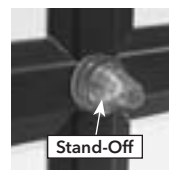
Grasp the end of one removable interior grille bar at a time, and gently pull until the end of the bar disengages. Repeat until all grille bars are removed. To reinstall the grilles, set them in place by aligning the clips on the brass-colored tacks, then gently press on the end clip of each bar until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

Designer Series 750

Open the hinged glass panel (see page 3.3) – it hinges on the side. To remove an existing removable grille, start at the bottom of the door and grasp the end of the grille next to the grille clip, then gently pull. To install a grille, start at the top of the door and align each clip with the hash marks printed in the hinged glass panel. Press gently on the clip to snap it onto the frame.



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 grilles

Architect Series 850 and Pella (ProLine) 450

If your products have permanent grilles, please refer to the cleaning section on page 3.5 for general glass maintenance information.

CLEANING**Cleaning the glass in all Pella® products**

To wash the glass:

1. 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. Or you may use an ammonia-free glass cleaner such as Windex® (clear liquid) or Sparkle® (purple liquid). Feel free to be generous with the amount of cleaner you apply, 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.



CAUTION: Do not use glass cleaners that are ammonia- or alcohol-based. They may leave streaks or produce a film that attracts moisture or dust.

Spot-cleaning stubborn materials on all 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 small amount of a nonabrasive cleaner such as Bar Keepers Friend® (SerVaas Laboratories) to a clean, wet cloth – or apply a solvent such as acetone or mineral spirits to a clean, dry, lint-free microfiber cloth or paper towel.
2. Rub on the areas of glass that need spot-cleaning. Avoid getting any cleansers or 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 above.



CAUTION: 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 or the standard Low-E glass (located inside the Designer Series® hinged glass panel)**

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 in all Pella products."

NOTE: Some marks may require repeating this process..

Cleaning the exterior aluminum cladding**EnduraClad® exteriors**

Clean the surface with warm, soapy water. Stubborn stains and deposits may be removed with mineral spirits. If your cladding becomes dull, you can use a quality car cleaner and wax to restore the shine. Should you need it, touch-up paint is available at the Pella Window and Door Showroom nearest you.



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

Cleaning flat patio screen doors

To clean a flat screen door, use the upholstery brush attachment on your vacuum cleaner.



WARNING: Use caution when children or pets are around open windows and patio doors. Screens are not designed to retain children or pets.



CAUTION: Do not power-wash.



Cleaning Rolscreen® patio screen doors

Architect Series® 850 and Designer Series® 750

Rolscreen patio screen doors should be in the closed 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, use hot water and mild detergent. If you wash your screen, make certain it is dry before operating it.



CAUTION: Do not power-wash.

Cleaning hardware finishes

A soft cloth and mild cleaner may be used on most hardware finishes for Pella® patio doors.



NOTE: Oil-Rubbed Bronze is a living finish that will develop its own unique patina with use, care and handling.



CAUTION: To avoid damaging the finish, do not use cleaners on Oil-Rubbed Bronze hardware. Simply wipe with a soft cloth.

Cleaning the hinged glass panel and between-the-glass grilles

Designer Series 750

First, raise the blind or shade completely. Then open the hinged glass panel (see page 3.3).

Before cleaning, if your patio door has snap-in between-the-glass grilles*, remove the grilles (see page 3.4) and set them aside. Then snap out your between-the-glass fabric shades or blinds (see page 3.4). To clean the glass surfaces, use a vinegar-based solution (as previously described on page 3.5) and a squeegee or soft, lint-free towel (paper or cloth). To remove any grease or sealant on the glass, use mineral spirits sparingly, then wash with a vinegar-based 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.)

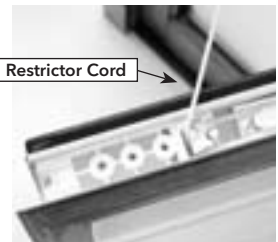
* If between-the-glass grilles or interior edge of the hinged glass panel needs cleaning, wipe with a damp cloth.



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. The cord should only be detached by a qualified service technician when performing service-related procedures.



CAUTION: 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 3.5 under "Cleaning the glass in all Pella products."



Cleaning between-the-glass Slimshade® blinds

Designer Series® 750

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 3.3). 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/shades 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 750

For between-the-glass shades, begin by opening the hinged glass panel (see page 3.3). If your shades become dusty, use a vacuum cleaner with the upholstery brush attachment. (Smudges, fingerprints, etc. can be 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.



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 between-the-glass decorative panels

Designer Series 750

Always clean your decorative panels in a reasonably cool, dry area. Do not clean them in the hot sun or elevated temperatures.

Open the hinged glass panel (see page 3.3) on your patio door, and then snap out your decorative panels (see page 3.4). Remove dust and dirt with a soft cloth or a sponge dipped in a solution of mild soap and water. You can also use a 50:50 solution of isopropyl alcohol and water. Next, rinse thoroughly with lukewarm water and carefully blot dry with a soft, damp cloth. Rubbing the panels with a dry cloth can scratch the material. Never use scrapers or squeegees on the panels.



CAUTION: Do not allow panels to soak in water. Only use the cleaning solutions listed above. NEVER use scouring compounds, sandpaper, gasoline, benzene, acetone, carbon tetrachloride, de-icing fluids, mineral spirits, lacquer thinner, Armor All®, Lysol®, Simple Green®, wood wash, MEK or other strong solvents, WD-40®, vegetable oil, Lime-A-Way®, or highly alkaline or abrasive cleaning agents. Do not power-wash.

HINGED PATIO DOORS



OPERATION

Multipoint locking system

Architect Series® 850, Designer Series® 750 and Pella® (ProLine) 450

Pella 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.

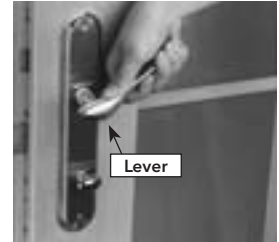
To engage the multipoint lock, close the door and lift up the handle. To lock the door so that it requires a key to unlock it from the outside, either turn the keylock on the exterior or turn the thumbturn lock on the inside with the handle raised. Test the door to make sure it's locked.



NOTE: Engaging the multipoint lock by lifting the lever does not lock the door from the outside.



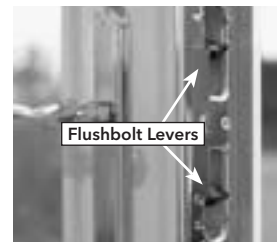
CAUTION: Make sure the door is completely closed before engaging the multipoint locking system. Failure to do so may mar the door's finish or frame. Always engage the multipoint lock when the door is closed to keep door panels square.



Flushbolt locking system

Designer Series 750

If your Designer Series 750 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.



Architect Series 850

Provides added security by locking the door at the top, middle and bottom by pulling up on the handle. If you have a double-hinged door, pull up on both handles to lock the doors.



CAUTION: Pull down on the handles to open the door(s). Do not pull up, or you could lock yourself out.

BLINDS, SHADES AND DECORATIVE PANELS

Snap-in between-the-glass window fashions

Designer Series® 750

Raise-and-lower Slimshade® blinds

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



Fabric shades

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

Tilt-only Slimshade blinds

Tilt-only blinds can be positioned and closed 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.

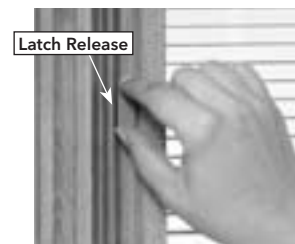
Decorative panels

Decorative panels do not "operate." To change or remove decorative panels, see the "Changing snap-in between-the-glass window fashions" section on page 4.3.

Opening the hinged glass panel

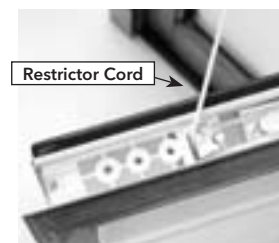
Designer Series 750

Find the side latch releases, located on one side of the unit (positioned at each end of that side). Slide each latch vertically 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 wood perimeter frame and open the panel. To close the hinged glass panel, gently push the panel until it snaps shut at the latch locations – much the same way you would with a glass stereo cabinet door. Listen for a click at each latch.



FYI NOTE: It's important when closing the hinged glass panel that you don't position the latch release or operator directly over any of the interior latches to ensure smooth operation.

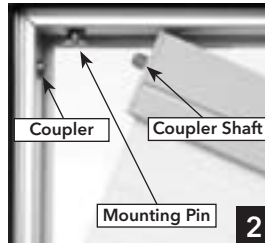
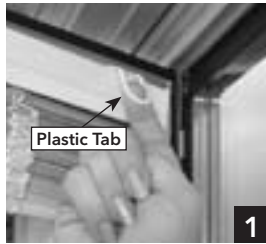
CAUTION: Do not remove or cut the white restrictor cord that limits the opening of the hinged glass panel. Doing so may cause serious damage, including glass breakage, to your Pella® product. The cord should only be detached by a qualified service technician when performing service-related procedures.



Changing snap-in between-the-glass window fashions

Designer Series® 750

Open the hinged glass panel (see page 4.2), and if present, remove the grilles (see instructions below). To remove the existing window fashions, first find the plastic tab at the top corner of the panel. Use it to grab the blind or shade and pull it toward you (1). Then slide the side of the window fashion opposite the plastic tab over and lift it off of the mounting pin. To install the new 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 lever to align it. Then snap the opposite side in over the mounting pin (3). Finally, check operation of the blind or shade; replace the grilles, if needed; and close the hinged glass panel.



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 window fashions.

If your patio door has a hinged glass panel (Designer Series 750 products), you may change or remove the window fashions under the glass as you wish. You could replace your snap-in between-the-glass fabric shades with Slimshade® blinds or add grilles or a decorative panel – it's a great way to give your patio doors a different look. For more information, contact the Pella Window and Door Showroom nearest you.

NOTE: To order the correct size for your snap-in between-the-glass window fashions 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).

GRILLES

Removable grilles

Architect Series® 850 and Pella (ProLine) 450

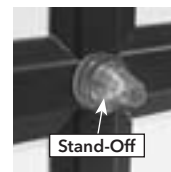
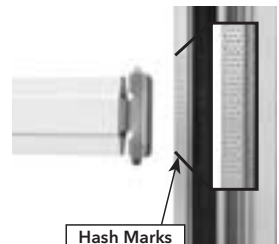
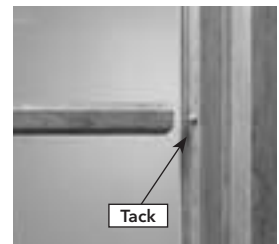
Grasp the end of one removable interior grille bar at a time, and gently pull until the end of the bar disengages. Repeat until all grille bars are removed. To reinstall the grilles, set them in place by aligning the clips on the brass-colored tacks, then gently press on the end of each bar until it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

Designer Series 750

Open the hinged glass panel (see page 4.2) – it hinges on the side. To remove an existing removable grille, start at the bottom of the patio door and grasp the end of the grille next to the grille clip, then gently pull. To install a grille, start at the top of the patio door and align each clip with the hash marks printed in the hinged glass panel. Press gently on the clip to snap it onto the frame.



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 grilles

Architect Series 850 and Pella (ProLine) 450

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

CLEANING**Cleaning the glass in all Pella® products**

To wash the glass:

1. 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. Or you may use an ammonia-free glass cleaner such as Windex® (clear liquid) or Sparkle® (purple liquid). Feel free to be generous with the amount of cleaner you apply, 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.



CAUTION: Do not use glass cleaners that are ammonia- or alcohol-based. They may leave streaks or produce a film that attracts moisture or dust.

Spot-cleaning stubborn materials on all 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 small amount of a nonabrasive cleaner such as Bar Keepers Friend® (SerVaas Laboratories) to a clean, wet cloth – or apply a solvent such as acetone or mineral spirits to a clean, dry, lint-free microfiber cloth or paper towel.
2. Rub on the areas of glass that need spot-cleaning. Avoid getting any cleansers or 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 above.



CAUTION: 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 or the standard Low-E glass (located inside the Designer Series® hinged glass panel)**

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 in all Pella products."

NOTE: Some marks may require repeating this process..

Cleaning the exterior aluminum cladding

EnduraClad® exteriors – The aluminum-clad exterior is protected by the Pella EnduraClad finish that doesn't need painting. Clean the surface with warm, soapy water. Stubborn stains and deposits may be removed with mineral spirits. If your exterior cladding becomes dull, you can use a quality car cleaner and wax to restore the shine. Should you need it, touch-up paint is available at the Pella Window and Door Showroom nearest you.



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

Cleaning hardware finishes

A soft cloth and mild cleaner may be used on most hardware finishes for Pella® patio doors.



NOTE: Oil-Rubbed Bronze is a living finish that will develop its own unique patina with use, care and handling.



CAUTION: To avoid damaging the finish, do not use cleaners on Oil-Rubbed Bronze hardware. Simply wipe with a soft cloth.

Cleaning the hinged glass panel and between-the-glass grilles

Designer Series® 750

First, raise the blind or shade completely. Then open the hinged glass panel (see page 4.2).

Before cleaning, if your door has snap-in between-the-glass grilles*, remove the grilles and set them aside. Then snap out your between-the-glass fabric shades or blinds (see page 4.3). To clean the glass surfaces, use a vinegar-based solution (as described on previous page) and a squeegee. To remove any grease or sealant on the glass, use mineral spirits sparingly, then wash with a vinegar-based 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.)

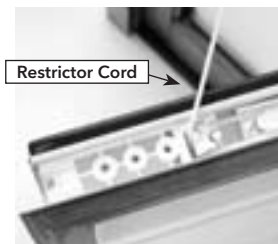
* If between-the-glass grilles or interior edge of the hinged glass panel needs cleaning, wipe with a damp cloth.



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. The cord should only be detached by a qualified service technician when performing service-related procedures.



CAUTION: 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 4.4 under "Cleaning the glass in all Pella products."



Cleaning between-the-glass Slimshade® blinds

Designer Series 750

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 4.2). 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/shades 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 750

For between-the-glass shades, begin by opening the hinged glass panel (see page 4.2). If your shades become dusty, use a vacuum cleaner with the upholstery brush attachment. (Smudges, fingerprints, etc. can be 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.



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 between-the-glass decorative panels

Designer Series® 750

Always clean your decorative panels in a reasonably cool, dry area. Do not clean them in the hot sun or elevated temperatures.

Open the hinged glass panel (see page 4.2) on your window, and then snap out your decorative panels (see page 4.3). Remove dust and dirt with a soft cloth or a sponge dipped in a solution of mild soap and water. You can also use a 50:50 solution of isopropyl alcohol and water. Next, rinse thoroughly with lukewarm water and carefully blot dry with a soft, damp cloth. Rubbing the panels with a dry cloth can scratch the material. Never use scrapers or squeegees on the panels.



CAUTION: Do not allow panels to soak in water. Only use the cleaning solutions listed above. NEVER use scouring compounds, sandpaper, gasoline, benzene, acetone, carbon tetrachloride, de-icing fluids, mineral spirits, lacquer thinner, Armor All®, Lysol®, Simple Green®, wood wash, MEK or other strong solvents, WD-40®, vegetable oil, Lime-A-Way®, or highly alkaline or abrasive cleaning agents. Do not power-wash.

FINISHING YOUR PELLA® PRODUCTS

OVERVIEW

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 ensure your windows and doors will beautify and protect your home the way they were designed to. A finish helps seal the wood and prevents damage from UV rays that will gray the wood. **Please note that failure to finish your Pella products in a timely manner may void their warranty** – and the Pella warranty does not cover issues associated with improper finishing. Please refer to the warranty at <http://warranty.pella.com>.



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.



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 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 does 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 coat?
- ✓ What else should be considered to obtain the best results?



CAUTION: To maintain proper product performance, **DO NOT** remove factory-installed weatherstripping, dust pads or gaskets when finishing your products. Air and water leakage may result and will void the warranty if factory-installed items are removed.



NOTE: 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 WINDOWS AND PATIO DOORS (CONTINUED)

1. Prepare 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.

2. Clean the glass

To wash the glass:

1. 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. Or you may use an ammonia-free glass cleaner such as Windex® (clear liquid) or Sparkle® (purple liquid). Feel free to be generous with the amount of cleaner you apply, but avoid getting any cleaning solutions on the wood frames as it may discolor the finish.
2. Rub from several different directions.
3. Rinse with clear water if streaks remain after cleaning.



CAUTION: Do not use glass cleaners that are ammonia- or alcohol-based. They may leave streaks or produce a film that attracts moisture or dust.



WARNING: Follow the manufacturer's instructions regarding application, storage and disposal of finishing products – materials (rags, etc.) used to apply these products may spontaneously catch on fire.

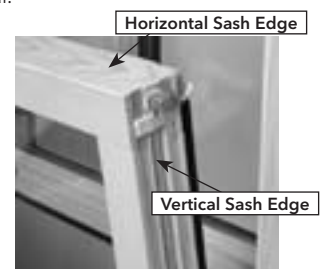
3. Apply finish

Designer Series® 750

- 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 (pages 1.3, 2.3, 3.3 and 4.2).

Architect Series® 850, Designer Series 750 and Pella® (ProLine) 450

- **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 sliding patio doors for finishing" on page 5.4.
- **Hinged patio doors:** Painting, staining or finishing the vertical and horizontal door panel edges is optional.
- **Grilles:** Please see "Finishing removable grilles" on page 5.3.



A STAINED FINISH

- **Pella strongly recommends the use of a good-quality prestain 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 prestain wood conditioner, a stain and a finishing coat that are compatible.
- Apply the prestain 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 FINISH

Picking your paint

The most important thing to look for 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 sliding patio doors for finishing" on page 5.4.
- 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 REMOVABLE GRILLES

Architect Series® 850 and Pella® (ProLine) 450

Removable roomside 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® 750

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 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 WINDOWS AND PATIO DOORS

Aluminum-clad exterior

All Pella® EnduraClad® products are finished with a baked-on EnduraClad or EnduraClad Plus coating. Pella does not recommend you repaint these coatings. **Please note that if you do paint over the factory finish, Pella's cladding warranty is voided.** 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 pages 5.1 – 5.3. 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 5.1 – 5.3. 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 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 (vent) door panel.

Architect Series® 850 and Designer Series® 750 sliding patio doors

- Unlock and open the (vent) 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 sliding patio doors

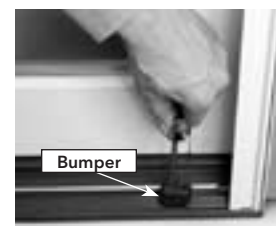
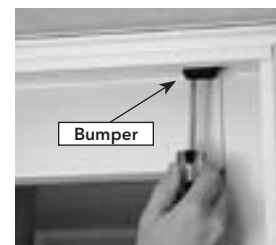
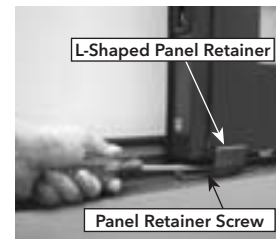
- Using an 8" screwdriver, remove the screw at the bottom of the interior handle insert. Lift the insert from the handle and remove the pan head screws to release the interior and exterior handle.
- Remove the retainer angle (mounted on the exterior of the sill).
- Open the (vent) panel approximately 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.



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

Architect Series 850 and
Designer Series 750



RECOMMENDED MAINTENANCE

OVERVIEW

Pella® windows and patio doors

Pella recommends you inspect your windows and patio doors at least annually as part of a home checkup. Recommended 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 recommended care, Pella windows and patio doors can reward you with decades of beauty and performance.

Exterior

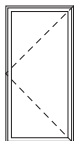
An annual checkup can help preserve and maintain the beauty of your Pella products for years to come.

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.

At the same time, 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 prevent further damage. Please see “Salt spray environments” on page 6.2. Instructions and touch-up paint for aluminum-clad products are available from the Pella Window and Door Showroom nearest you.

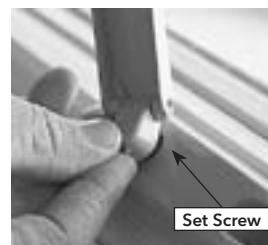
Interior finish

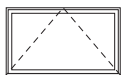
At least once a year, inspect the interior finish of your windows and/or patio doors to make certain that the painted or stained finish is in good condition. UV rays from the sun can break down the paint's/stain's finish and compromise its protective features. Should it be necessary to refresh your finish,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



Casement windows

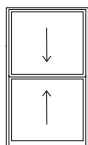
To keep the window operating smoothly, clean the window track occasionally with a dry brush. To help prevent the sash from sticking, apply a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to the track if necessary. **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.





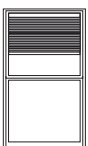
Awning windows

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-hung windows

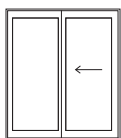
Keep the jambliner on the sides of the window frame clean and lubricated with a thin coat of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to keep them working smoothly. **Do not use oily lubricants;** they attract dust and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



Between-the-glass fabric shades

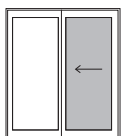
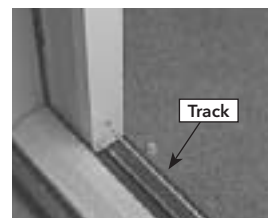
Designer Series® 750

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.



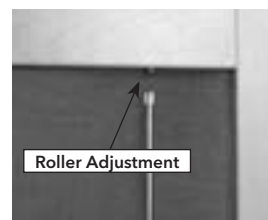
Sliding patio doors

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 7.2 for complete details).



Sliding patio screen doors

Pella® 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 7.2 for complete details). If the screen becomes dirty, you can clean it using a vacuum cleaner with the upholstery brush attachment.



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.



CAUTION: Do not power-wash.

TROUBLESHOOTING

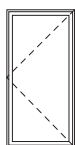
OVERVIEW

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 7.6). For safety reasons and to ensure optimum performance, we strongly advise you 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).



Casement windows

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.

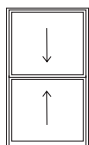
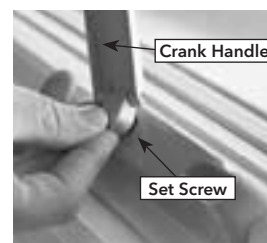
Check to see that the sash guide is clean. Dirt and debris in the track will affect operation. If needed, clean with soapy water or a dry brush (see page 6.1). You may want to apply a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement 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.

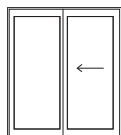
The lock handle is designed to be removable. Push it back into the opening with the handle in the locked position. It should snap back in place.



Double-hung windows

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.



Sliding patio doors

The door latch does not always latch.

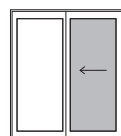
The lock strike screws are adjustable. Pop off the cover, loosen the five screws on each strike, and move them to the correct position (where they fit exactly into the rectangular holes on the edge of the panel). Retighten the screws, and snap the covers back on.

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 screwdriver to adjust the rollers. Turn the adjusting 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."



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



Sliding patio screen doors

The screen door does not slide smoothly.

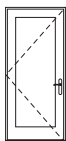
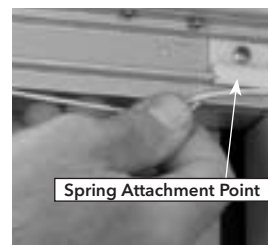
The screen should move smoothly on its track. Apply a thin layer of paraffin or other dry lubricant (Teflon® Dry Lubricant or Gulf Wax®, available at most home improvement stores, works well) to the track if necessary. **Do not use oily lubricants;** they attract dust and grime, which will eventually 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.

The self-closing screen door does not automatically close.

Architect Series® 850 and Designer Series® 750

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.



Hinged patio doors

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.

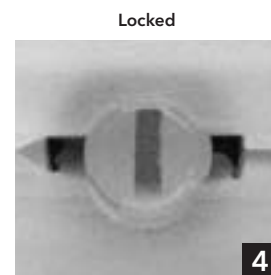
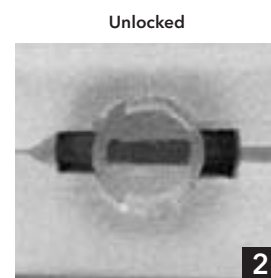
Between-the-glass Slimshade® blinds and fabric shades

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 Pella representative.

Rolscreen® window screens

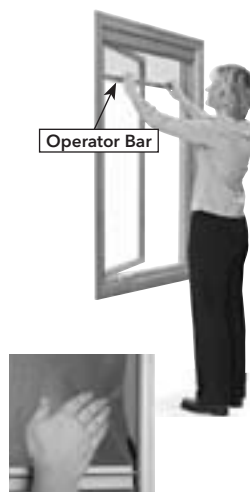
The screen comes out of the track.

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. Retrack 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.



Preventing 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 coldest surface 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 blocking 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® 750 windows and doors?

Many of the same conditions that can cause roomside condensation can cause between-the-glass condensation on Designer Series 750 windows and doors. Read the section on "Preventing roomside condensation" 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 1.1 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 750 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 morning 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.


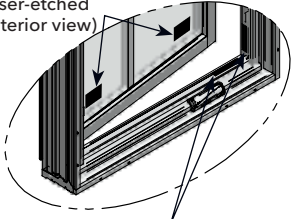
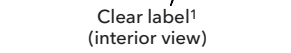
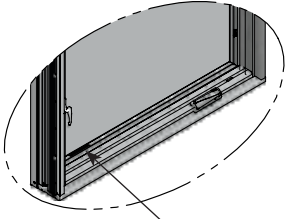
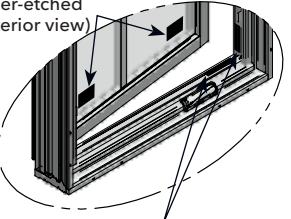
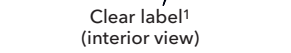
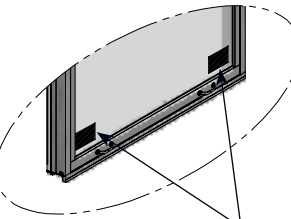
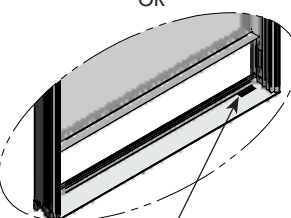
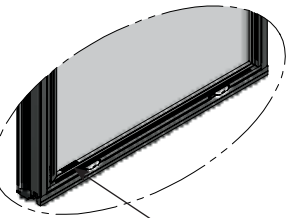
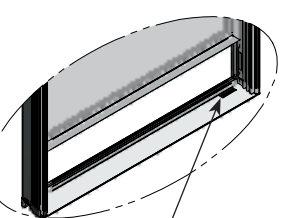
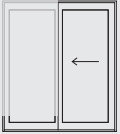

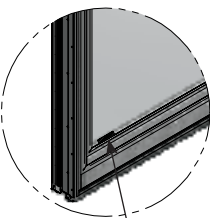
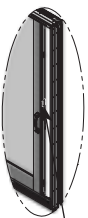

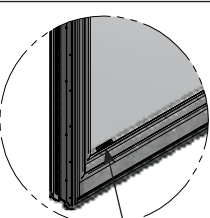
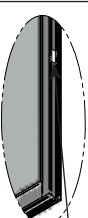
- Open window coverings – such as blinds, shades, drapes and curtains – during daylight hours to increase airflow over the glass.
- Closely monitor the furnace humidifier and any other humidifying devices.
- Be sure louvers and vents for the attic, basement and/or crawl space are open, adequately sized 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 manufacturer's 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®.


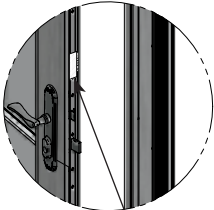
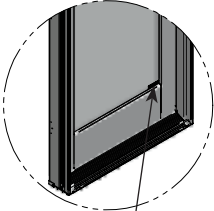
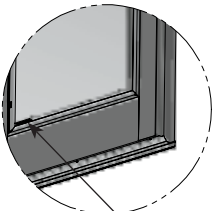
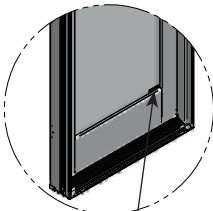
For more information on condensation in the home, consult the following:

- 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 Manufacturer's Association: www.wdma.com. Search for "condensation."
- University of Wisconsin Extensions: www.uwex.edu. Search for "condensation."
- Efficient Windows Collaborative: www.efficientwindows.org. Search for "condensation."



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, which cannot be corrected. Contact your Pella representative if this occurs.

PRODUCT TYPE/LABEL TYPE/LOCATION			
PRODUCT TYPE	LABEL TYPE/LOCATION		
 CASEMENT/ AWNING WINDOW	ARCHITECT SERIES® 850  Laser-etched (interior view)  Clear label ¹ (interior view)	DESIGNER SERIES® 750  Silver label ² (interior view)	PELLA® (PROLINE) 450  Laser-etched (interior view)  Clear label ¹ (interior view)
	ARCHITECT SERIES 850  Laser-etched or clear label (interior view) OR  Clear label ¹ (exterior view)	DESIGNER SERIES 750  Silver label ² (interior view)	PELLA (PROLINE) 450  Clear label ¹ (exterior view)
 SLIDING DOOR – VENT DOOR	ARCHITECT SERIES 850  Clear label ¹ (interior view)	DESIGNER SERIES 750  Silver label ² (interior view)	PELLA (PROLINE) 450  Clear label ¹ (interior view)
	ARCHITECT SERIES 850  Clear label (exterior view)	DESIGNER SERIES 750  Silver label ² (interior view)	PELLA (PROLINE) 450  Clear label (exterior view)

PRODUCT TYPE	LABEL TYPE/LOCATION		
	ARCHITECT SERIES® 850	DESIGNER SERIES® 750	PELLA® (PROLINE) 450
 <p>HINGED DOOR</p>	 <p>Clear label¹ (interior view)</p> <p>OR</p>  <p>Clear label (exterior view)</p>	 <p>Silver label² (interior view)</p>	 <p>Clear label (exterior view)</p>

¹ To view the label from the interior, you'll need to open the unit.

² The Unit ID label on Designer Series 750 products can be found on the aluminum surface in the airspace between the glass panels in the left corner. To view the label, you'll need to raise the blind or shade and remove the decorative panel, if applicable.

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 similar systems. Except in the states of California, New Mexico, Arizona, Nevada, Utah and Colorado, 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 EIFS or similar barrier systems must be in accordance with Pella's instructions for that type of construction.**

NFRC label

Pella products labeled with the National Fenestration Rating Council (NFRC) Energy Performance label are tested in accordance with NFRC standards. NFRC ratings are based on a combination of computer simulations and physical testing of product samples. For details on NFRC Energy Performance ratings, go to NFRC.org.


What's so special about the National Fenestration Rating Council (NFRC) label?

It represents one standard testing method from an independent source for all kinds and brands of windows and doors. It replaces a system of individual manufacturers testing their own products with many different testing standards. With this label, you can make direct comparisons. Keep in mind, energy efficiency is just one of the many important qualities to look for in windows and doors. The NFRC has one single purpose: to establish and improve upon uniform energy-rating procedures for all brands of windows and doors.

This nonpartisan coalition of professionals includes home and commercial builders, product designers and specifiers, manufacturers, consumer advocates, utility company energy specialists, and government agencies.

Pella Corporation is a member of the NFRC and supports its work on behalf of homeowners and the building industry. If you have any questions about the NFRC, feel free to write to NFRC, 6350 Ivy Lane, Suite 104, Greenbelt, MD 20770 – or call 301-589-1776, fax 301-589-3884 or visit nfr.org.


Always read the complete Pella warranty at <http://warranty.pella.com> for details.



National Fenestration Rating Institute
CERTIFIED

Pella Corporation

Casement
5/8" InsulShield Triple IG
Left Hinge
Clear Temp Panel
Argon Filled
CPD: PEL - N - 016



ENERGY PERFORMANCE RATINGS

U-Factor (U.S.A. - F)

0.30

Solar Heat Gain Coefficient

0.25

ADDITIONAL PERFORMANCE RATINGS

Visible Transmittance

0.41

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Manufacturers designate their tested windows to qualify with NFRC procedures for determining whole window performance. NFRC ratings are determined on a basis of environmental conditions and a specific product line. NFRC does not guarantee any products and does not warrant the performance of any product or any specific site. For more information, call (800) 871-5716 or visit www.nfrc.org.

Wind Load
A150 - 150 mph

55
Per AIAA 605.3

Energy Performance
ENERGY STAR
Certified


A2 Air Leakage
0.16 cfm/ft²

Canada
ULC-2550 - 150 mph

55
Per AIAA 605.3

Energy Performance
ENERGY STAR
Certified

U.S.E. & I.
ICC-708 - 150 mph
certification



U.S. - Certified locations

WOMMA

WOMMA License Number: C-17-002

GEORGINA

GEORGINA License Number: C-17-002

RSS (Performance Grade 45)

Technical Information: NFRC 2-2, NFRC 2-3
NFRC 2-4, NFRC 2-5, NFRC 2-6, NFRC 2-7, NFRC 2-8, NFRC 2-9

WOMMA Reliance Certification. Your products labeled with the WOMMA 4-5 are eligible for the WOMMA Reliance Program. The WOMMA Reliance Program is a voluntary program for applicable Non-Performance standards, which requires products to be tested for air infiltration, air leakage and structural performance. The WOMMA Reliance Program will charge over time depending upon the volume of sales. For details see WOMMA Reliance Certification, at www.womma.com.

Source: Performance Rating Institute, Inc. - 1/16/06
 NFRC is a registered trademark of the National Fenestration Rating Institute, Inc.
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NOTE: For example purposes only. NFRC ratings will vary by product.