



WINDSOR
WINDOWS & DOORS
A Woodgrain Millwork Company



CARE & USE GUIDE

FOR PINNACLE & LEGEND PRODUCTS

www.windsorwindows.com

Care and Use

The following information has been provided to assist in preserving the integrity and reliability of your Windsor products.

Installation

Your product should be inspected and installed following the steps described in the supplemental instruction pamphlet provided with your Windsor unit. Improper installation may cause your unit to perform poorly, which could reduce the life expectancy and/or void the warranty. To receive a copy of the written warranty and/or a copy of the installation instructions, contact your local authorized Windsor distributor or visit www.windsorpinacle.com/warranty (for Pinnacle products) or www.windsorlegend.com/warranty (for Legend products).

Finishing

A finish must be applied to the interior/exterior surface of all wood and primed wood components of Windsor products within 60 days of installation. Exposure to the elements for an extended period of time will cause deterioration of factory primed coatings on primed wood and cause raised grain, potential checking, fungal decay and potential wood rot in natural wood components.

When painting or staining, ensure the topcoat finish fully extends to the glass surface. While painting surfaces, pay particularly close attention to any joints where sash or frame parts meet. The paint must bridge any gaps created by these joints.

DO NOT PAINT HARDWARE OR WEATHERSTRIP (mask, or remove and re-install).

For Double Hung and Glide-by Products – Do not apply paint or stain to non-wood components of jamb liners (double hungs) or tracks (glide-by), or to the edges of the sash that make contact with these components.

We **do not** recommend painting the aluminum surfaces of aluminum clad products. Painting aluminum extrusion surfaces will void the warranty.

Surface Preparation

Prior to finishing, all surfaces should be dry, clean, free from mold and mildew, dust or any other form of surface contamination. An exterior topcoat (primed wood or cellular PVC products only) or interior finish should be applied while the sash/panel is open or removed from its frame, to ensure complete coverage. The finish should be allowed to dry completely prior to placing it into contact with any other window/door component.

Consult your local paint supplier when selecting the applicable interior or exterior finish. Follow paint manufacturer's recommendations for surface preparation and topcoat application.

Finishing Unfinished Wood Components

All exposed wood surfaces must be sealed or finished following installation. Apply a top quality primer to any bare wood surfaces that will be painted. When applying a topcoat paint finish, follow the manufacturer's instructions. Latex flat paints are not recommended, as they do not provide adequate protection from moisture penetration. If a stain is applied as an interior finish, 2-3 coats of a top quality clearcoat finish (varnish or urethane) should follow its application. When using darker stains, a sanding sealer or pre-stain is recommended. Pine will tend to absorb stain at an uneven rate, resulting in an inconsistent appearance.

Finishing Primed Wood Components

All wood surfaces must be sealed or finished following installation. For venting units, pay particular attention to finish all surfaces that are

exposed when the sashes are in both the open and closed positions. When applying topcoat paint finish, follow the manufacturer's instructions.

Interior – Latex flat paints are not recommended, as they do not provide adequate protection from moisture penetration.

Exterior – Use high quality exterior grade paint, following the paint manufacturer's instructions.

Finishing Cellular PVC Window Components

Cellular PVC components are white in color throughout and can serve as a finish coat when left white.

IMPORTANT: Cellular PVC is a vinyl-based composite. Cellular profiles may be subject to thermal expansion and contraction at direct temperatures above 145° F. Extreme dark colors may accelerate this situation. Dark colors tend to absorb a greater amount of solar heat, which can cause cellular PVC to expand and contract excessively. This can cause warping and/or distortion. This expansion and contraction can result in the distortion of frame and sash components. Paint adhesion loss, blistering and peeling could also result.

CAUTION! READ BEFORE PAINTING.

When painting cellular PVC products with darker paint colors (L values of 56 or below), UV irradiance can generate high localized temperatures in the product.

WARNING – Painting of any cellular PVC surface with a paint color darker than L value of 56 (where black = 0 and white = 100) will forfeit the product warranty.

If you should, despite the above warning, choose to use a paint for any colors or darker colors for painting cellular PVC, a paint specifically designed for these applications **MUST** be used. Contact the paint manufacturer to verify the paints' reflective properties and the suitability for painting cellular PVC. Windsor is not liable for paint used on our cellular PVC components or the result of its use.

Cleaning

Glass (Routine Cleaning) – Use a vinegar-based solution (10% vinegar and 90% water) or commercially available ammonia-free and alcohol-free window cleaner such as Sparkle Glass Cleaner. Apply a film of cleaner to the glass surface. Rub the glass surface with a lint-free cloth or paper towel to clean. Wipe dry with a clean, dry, lint-free cloth or paper towel. Avoid getting cleaning agents on any non-glass components.

Never use a razor blade or other metallic object to clean or remove residue from your window or door products. These can scratch the glass, leading to obstruction of clarity and/or glass breakage.

Spot Removal – Occasional spot cleaning may be required to remove stubborn dirt or foreign materials that have adhered to the glass surface(s). First, follow the Routine Cleaning instructions above; if contaminants remain, apply a small amount of non-abrasive cleaner (such as Bar Keeper's Friend[®]) or organic solvent (such as Goof-Off[®]) to a clean, dry, lint-free cloth or paper towel. **DO NOT APPLY CLEANER DIRECTLY TO THE GLASS.** On the area affected, work the cloth in multiple directions until spot is removed. Avoid getting cleaning agents on any non-glass components. Repeat the Routine Cleaning instruction above to remove any residual cleaner residue. For cleaning of Dual Low-E glass with the room side Low-E coating, please see the cleaning instructions listed next.

Room Side Low-E – Products purchased with the Dual Low-E glazing option have a Low-E coating applied to the room side of the windows. Never use a metallic object to remove debris from the Low-E coating. The room side Dual Low-E glass surface is to be cleaned with a solution of vinegar and water, soap and water, or a standard household window cleaner, such as Windex®. Caution should be taken when using anything abrasive on the Dual Low-E room side surface.

Screens – Remove the screen from the opening, wash with a mild detergent and water. Follow by rinsing with clean water.

Exterior Clad and Painted Surfaces – Use a mild detergent and water solution to clean the exterior surface of your unit. Never use abrasive cleaners or cleaning pads. Stubborn stains or deposits may be removed with a small amount of mineral spirits. Again, follow up by washing the area with a mild detergent and water solution. Rinse area with clean water. A number of these cleaning recommendations were derived from the AAMA 610.1 specifications for aluminum windows. If the exterior surface of your clad unit appears to be dull, the application of a non-abrasive, polymer-based automotive wax will restore the shine.

Cellular PVC Unfinished Surfaces – A mild detergent and water solution may be used. The following cleaners may also be used: Windex®, 409® Glass and Surface Cleaner, Spic and Span®, Cinch®, Glass Plus®, fantastik® All-Purpose. Avoid cleaners that contain glycol ethers or ethanol type solvents that fall into the category of “hot solvents.” Typical trade names of “hot solvents” are Goo-Off® and Goo-Gone®.

Salt Spray Environment – If your unit is located in a salt spray environment, a quarterly rinse of the exterior window/door surface and operating hardware with fresh water is recommended.

Brass Handle Set – Clean handle set with a solution of mild soap and water. Do not subject to harsh abrasives or solvent-based cleaning products. Due to normal wear and tear through everyday use, certain brass hardware finishes may lose their protective coatings and begin to tarnish. This is not a manufacturer’s defect and does not affect the operation of the hardware. Consult the maintenance section for recommendations on ways to refurbish and protect your hardware.

Casement and Awning Hardware – Clean dirt and grime from window hardware. Particular attention should be paid to the hinge track. Clean water should be used to rinse away debris. A solution of mild soap and water can be used to loosen stubborn dirt. Always rinse with clean water. Allow to dry completely before lubricating (Maintenance). Never use cleaners with the following: vinegar base, citrus base, abrasive or industrial type cleaners. These types of cleaners may not only remove or break down lubricants; they can also diminish the effectiveness of corrosive resistant coatings.

Double Hung and Glide-by – Clean vinyl components with a solution of mild soap and water.

Swinging Patio Door Sill – The sill cover has notches cut into it to allow proper water drainage. Periodically inspect these weep holes for debris and clean if necessary.

Sliding Patio Door and Multi-slide Patio Door Sill – Clean sill with a solution of mild soap and water.

Inspection

A yearly inspection of your window/door unit should be performed. Special attention should be paid to:

Sealants – Inspect sealants for any cracking, peeling or gaps, which may have opened up over time.

Paint – Check for damage, deterioration, checking or peeling.

Finish – Check for deterioration of interior topcoat wood finishes and finishes applied to hardware.

Glass – Check for any cracks or fogging between the panes on an insulated glass.

Hardware – Check for any dirt or grime build-up, which may cause poor operation or excessive wear.

Door Sills – Check for any dirt or grime build-up, which may cause poor operation or excessive wear.

Gaskets – Check frame corner gaskets for any voids or deterioration.

Maintenance

Interior Finishes – Typically any varnish or urethane topcoat will require a reapplication over a period of time. Wipe away any flaking topcoat material, and any other dust or debris, from the sash. Sand the surface with a fine grit sandpaper. Wipe the surface with a tack cloth. Apply a topcoat, following the manufacturer’s instructions.

Exterior Finishes – Prior to any repair, the surface to be finished must be clean and free from moisture.

Wood – If paint has peeled from the primer, the primed surface should be lightly sanded with a fine grit sandpaper and have a topcoat reapplied. If the paint and primer has pulled from the window surface, leaving bare wood exposed, the surface should again be lightly sanded and reprimed. Only after the surface has been primed should a topcoat be applied.

Painted Aluminum Cladding – Unsightly dings and dents to aluminum clad units can be repaired by cleaning the surface, lightly sanding the affected area, applying a body filler if necessary (sanding smooth if used), priming, lightly sanding and applying a color match touch-up paint.

Anodized Finish on Aluminum Cladding – For light soils, the simplest procedure is to flush the surface with water using moderate pressure. If the surface is still dirty after air drying, scrubbing with a brush or sponge and concurrent spraying of water is the next step. If soils still adhere, then a mild detergent cleaner can be used with brushing or sponging. Washing should be done with uniform pressure, first horizontally then vertically, and following the washing, the surfaces must be thoroughly rinsed by spraying with clean water.

Cellular PVC Components – Cellular PVC components can be repaired following the steps given for aluminum repairs. Following is a list of possible fillers for the repair of nail holes, dings and dents: DAP® Painters Putty, Minwax® High Performance Wood Filler, Sherwin Williams® Shrink-Free Spackling and Elmer’s® Fill-n-Finish Light Wood Filler. After filling or repair, simply touch-up paint over area.

Brass Finish – You can refurbish and protect any tarnished brass surface by:

- 1) Removing the hardware.
- 2) Brushing the parts with a lacquer remover, following the manufacturer’s recommendations.
- 3) Using a 000 steel wool to wipe the finish from the parts.
- 4) Rinsing off the parts with a mild soap solution.
- 5) Applying a quality, non-abrasive, polymer-based auto wax to seal the surface. Reapply periodically.

Casement and Awning Hardware – After the hardware has been cleaned, or as a yearly maintenance practice, it should be lubricated to restore smooth operation. The following are recommended lubricants and their applications:

Operator: Lithium grease, automotive grease, petroleum jelly.

Hinges and locks: WD-40®, CD2®, 3-in-1 oil, graphite. Possible staining may occur if any of these products make contact with wood frame or sash members. Avoid the use of silicone-based lubricants as they may result in causing some plastic parts to become brittle.

Door Hardware – Shoot some dry graphite into the lock cylinder keyway once or twice a year.

Double Hung and Glide-by – If difficulty in the operation of your unit develops, an application of a paste wax or silicone spray may be warranted.

Double hung units with concealed jambliner systems have jamb-jacks located behind the transition cover at the middle of each side jamb. Although the jamb-jacks aren't required for installation, they can be used to adjust the frame width at the middle of the window. To locate the jamb-jacks, remove both sash from the frame and remove the transition cover. Reference the sash removal section for details on how to remove the sash. Use a flat head screwdriver to adjust.



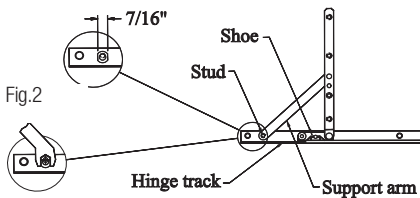
Gaskets – If voids or deterioration exist at the frame corner(s), a bead of sealant must be applied. Tool the sealant into the corner(s).

Sash/Panel Adjustment

Prior to any adjustment, an evaluation should be made of the windows/doors' installation integrity. Is the unit installed correctly and shimmed properly?

Casement – When viewing a casement from the exterior, the margin around the perimeter of the sash should be consistent. If this is not the case, the hinges allow for some adjustment. To familiarize yourself with the hinge assembly, open your casement window. Fastened to the window frame head and sill is a silver hinge track. Stamped into the track, you should see "PRY TO REMOVE SASH" and an arrow.

The arrow points to a stud projecting from the track with a flat bar (hinge arm) attached to it. Under the flat bar is an offset nut. When turned, the center of the stud changes position. Use a flat wrench,



which can be obtained from your local independent Windsor distributor, turn the offset nut. (A 7/16" open end wrench can also be used to make adjustments. The hinge arm must first be pried up and off the stud, allowing access to the offset nut.) Turning the wrench in one direction will move the bottom of the sash in that direction. Turning it in the opposite direction will move the bottom of the sash in the opposite direction. The same can be performed to the top track. Do not rotate more than 45 degrees from the face of the window.

Push-out casement multi-point lock assembly rollers can also be adjusted for engagement with the keepers. After any adjustment of the sash, check engagement of the rollers. If adjustment is necessary, adjust each roller with a 3mm allen wrench to ensure each roller is properly engaging the corresponding keeper.



Swinging Patio Door

Vertical Adjustment for Doors with One Set Hinge

With the door closed or open:

1. Remove the press-fit Fitial Cap from the bottom of the Set Hinge to expose the adjustment screw. Use the small flat head screwdriver for Set Hinges featuring a plastic Fitial Cap. A plastic putty knife is recommended for Set Hinges featuring a brass Fitial Cap.
2. Insert the 13/16" hex wrench into the bottom of the Set Hinge. Tighten the screw to raise the panel and loosen to lower the panel.
3. Reinstall the Fitial Cap removed in Step 1.

Vertical Adjustment for Doors with Two Set Hinges

With the door closed or open:

1. Remove the press-fit Fitial Cap from the bottom of the Set Hinge to expose the adjustment screw. Use the small screwdriver for Set Hinges featuring a plastic Fitial Cap. A plastic putty knife is recommended for Set Hinges featuring a brass Fitial Cap.
2. To raise the panel, insert the hex wrench into the topmost Set Hinge and tighten the adjustment screw to achieve the desired adjustment. Insert the hex wrench into the other Set Hinge and tighten the adjustment screw 1/8 turn past the onset of resistance to distribute the panel weight evenly between both Set Hinges.
3. To lower the panel, insert the hex wrench into the topmost Set Hinge and loosen the adjustment screw as far as possible without removing. Insert the hex wrench into the other Set Hinge and loosen the adjustment screw to achieve the desired adjustment. Retighten the adjustment screw on the topmost 1/8 turn past the onset of resistance to distribute the panel weight evenly between both Set Hinges.
4. Reinstall the Fitial Caps removed in Step 1.

Horizontal Adjustment

With the door open:

1. Insert a 3/16" hex wrench into the horizontal adjustment screw.
2. Turn clockwise to decrease the margin and counterclockwise to increase the margin on the hinge side.

Sliding Patio Door and Multi-slide Patio Door – To ensure your door is performing properly, the active panel should be parallel with the side jamb. Locate the panel edge about 1/16" from the edge of the side parting stop. If the gap is not consistent from top to bottom, the panel requires adjustment.

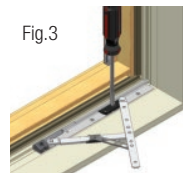
At the bottom edges of the active panel are roller adjustment screws. Using a screwdriver, turn the screws to adjust each side of the panel up or down until the panel is parallel with the side jamb.

Awning Hinge – If your sash hops or chatters during operation, an adjustment to the hinge may be necessary. An awning hinge is similar to the hinge used on a casement window. A screw in the hinge shoe can be turned in to increase the friction on the hinge track, providing a smoother travel.

Push-out Friction Adjustment

Push-out casement and awning units have friction adjustment

that allows changes to the force required to open and close the unit. Casement friction adjustment is located on the casement hinges (Fig. 3). Awning friction adjustment is located on a separate friction adjustor (Fig. 4). For both casement and awning friction adjustment, use a flat head screwdriver to tighten the adjustment screw, increasing operating friction, or loosen the adjustment screw, decreasing operating friction.



Screen Removal

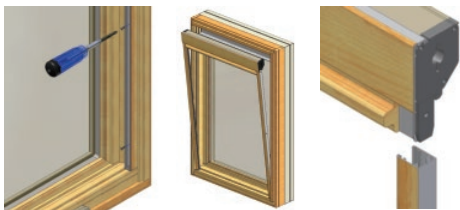
Wood/Clad Casement and Awning – Lift up on the tab, located on the top of the bottom screen frame, and pull toward the interior. When you have the screen angled toward the interior, lower the screen from the head jamb. Return the screen by reversing the previous steps.

Double Hung and Glide-by – Located on the inside edge of the screen frame are a number of screen plungers. To remove the screen, the plungers must be retracted. Grasping both plungers, one from each side of the screen, pull up on the plungers and swing the screen toward the exterior. If the screen does not swing out freely, you have not pulled up on the plunger far enough. Return the screen by reversing the previous steps.

Sliding/Swinging Patio (Rolling) – Located on the bottom edge of the screen are a pair of rollers. Using a Phillips head screwdriver, lift up on the roller wheel until it clears the track it is riding on. Pull the bottom of the screen toward you. Continue with the remaining wheel. Swing the bottom of the screen toward the exterior lowering the screen from the head track. Return the screen by reversing the previous steps. Using the screwdriver, lift up on the wheels and push the screen back into place, one side at a time.

Retractable Screen Tension Adjustment – Retractable screens use a spring tension device. Tension may reduce over time and/or repeated use. Adjusting the screen tension may be necessary to ensure the screen fully retracts into the screen cassette assembly.

To remove the screen cassette assembly from the unit, you will first need to remove the full screen assembly from the window. Retract the screen. Remove the screws along the screen tracks. Tilt the screen assembly out to remove from the opening. Detach the tracks from the screen cassette assembly by pulling the tracks straight down.



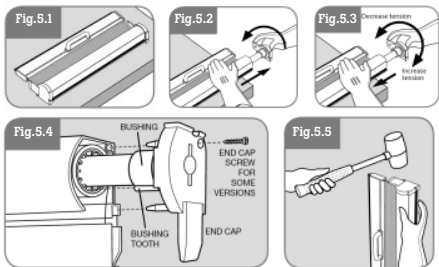
SAFETY NOTE: Roller style retractable screens use a tension spring that can cause bodily damage if not handled correctly. It is recommended that you wear sturdy gloves before attempting to adjust spring tension.

Place the screen cassette assembly on the table as shown in the illustration (Fig 5.1).

Gently loosen the right end cap from the cassette, being careful to keep a firm grip on the end cap. DO NOT LET GO (Fig 5.2).

Increase the spring tension by adding clockwise turns or decrease tension applying counter-clockwise turns (Fig 5.3).

NOTE: When sliding the bushing into the tube of the screen roll, make sure that the tooth on the bushing lines up with one of the slots in the screen tube (Fig 5.4).



Slide the end cap pin into the cassette and install by tapping evenly with a soft mallet (Fig 5.5). Reinstall screws.

Open and close the screen several times to check the operation.

If the screen cassette assembly is working properly, reinstall the retractable screen by applying the tracks onto the assembly, installing the assembly into the window unit and reapplying all screws into the tracks.

Sash/Panel Removal

Wood/Clad/Cellular PVC Casement – Open your window about halfway. Opening your sash is a combined effort of two arms. One is snapped over a stud on the inside face of the window sash. The other rides along a track on the inside face of the window sash. The first step is to slide the stud clip off the stud. A slot has been provided in the clip for a standard head screwdriver. Place the tip of the screwdriver in the slot and push away from the stud. Proceed by placing the tip of the screwdriver between the primary arm and the bracket holding the stud.

Twist the head of the screwdriver and pop the arm from the stud. If you push or pull the lock side of the sash, it will swing slightly back and forth. On the inside face of the sash is an operator track. The top of the track has a note specifying "DEPRESS ARM TO DETACH" and an arrow. Located at the end of the secondary arm is a roller.

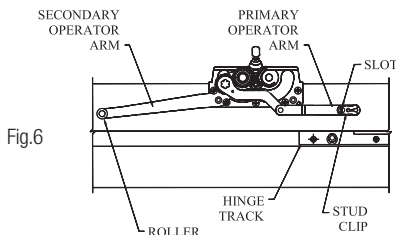


Fig.6

Move the sash in or out and position the center of the roller at the arrow. You may require the assistance of the operator crank to position the arm. Push the secondary arm down and pull forward. It will disengage from the operator track. Swing the sash out until it is 90 degrees to the window frame. The hinge arm must now be detached from the sill hinge track. Place the tip of your flat head screwdriver between the hinge arm and the track. As you did with the primary arm, twist the head of the screwdriver and pop the hinge arm from the stud. Repeat at the head. With one hand on the lock side of the sash and the other hand on the opposite side, slide the sash sideways. Slide the sash along the hinge track until the head can tip outward. Tip the head out as you lift up on the bottom of the sash. Pull the sash in through the window opening. Reverse these steps to replace the sash. Swing the sash out the window opening. Set the base on the sill track and rotate the head up. Located on the top and bottom of the sash is a shoe. A tongue on the hinge track must slide into a groove on the shoe. Once these two are engaged, slide the sash to the side opposite of the lock. Position the hinge arm over the upper and lower hinge track stud and snap in place. Swing the lock side of the sash inward. Align the secondary arm roller with the arrow on the operator track, push down, over and allow it to relocate in the track. Snap the primary operator arm over the stud on the sash stud bracket and slide the stud clip back in place.

Wood/Clad/Cellular PVC Double Hung and Glide-by

To remove the sash, the top of the sash must be tilted inward. Unlock and slide the bottom sash to an open position (about 3"). Located on the top of each end of the bottom sash are tilt latches. The tilt latch has a button on it, which slides. Each of the two buttons must be slid toward each other before the top of the sash can be tilted inward. Some effort may be required to release the top of the sash from the jambliner. Swing the sash down until it is 90 degrees to the window frame.

CAUTION: Rotating the sash more than 120 degrees, past vertical, will cause damage to the sash balance components. Rotate one side of the sash up, until the pivot pin on the side of the sash clears the jambliner, then swing inward. The other side of the sash should follow. Repeat for the top sash. To replace the sash, reverse the previous steps. Place one side of the sash in the jambliner, locating the pivot pin above the shoe in the jambliner. Angle the other side of the sash in and over the opposite shoe. At this point your sash should be seated in the balance shoes and 90 degrees to the window frame. Depress both tilt latches and rotate sash into frame.

Wood/Clad Sliding Patio Door – Your active panel is held in place with a wood interior head stop. This stop is located on the head jamb and is held in place with a number of screws. With the active panel in the open position, remove all the screws from the center of the frame over to the active side jamb. Return the active panel to the closed position and remove the remaining screws. The interior stop should pull from the head jamb. Slide the active panel to an open position, tilt the top of the panel to the interior and lift the bottom of the panel from the sill track. To replace, reverse the previous steps.

Multi-slide Patio Door

Stacking Doors – Remove the aluminum head jamb cover that butts to the edge of the stacking panel. Next, remove the L-bracket on the top edge of the stacking panel located under the head jamb cover that was just removed. (There is an L-bracket under the head jamb cover for all panels except the lead panel). Remove the plastic hole cover on the jamb stile of the stacking panel, exposing the locking hardware. Using a flat tipped screwdriver, disengage the lock and slide the stacking panel slightly away from the jamb by lifting the roller out of the track. Lift the panel up and tilt the bottom of the panel toward the exterior to remove the panel. Repeat the last step for all panels that need to be removed.

Pocket Doors – Remove the wood pocket cover by removing the screws holding the wood pocket cover to the aluminum follower plate located behind the wood pocket cover. Remove the aluminum follower by removing the four lag bolts that attach to the panel. Remove the aluminum head jamb cover that butts to the edge of the pocket panel. Next, remove the L-bracket on the top edge of the pocket panel located under the head jamb cover that was just removed. (There is an L-bracket under the head jamb cover for all panels except the lead panel). Slide the pocket panel slightly out of the pocket by lifting the roller out of the track. Lift the panel up and tilt the bottom of the panel toward the exterior to remove the panel. Repeat the last step for all panels that need to be removed.

Swinging Patio Door – Remove from the hinge leaves. The hinge consists of three basic parts; one pin and two leaves. The pin has a flat head, which rests on the hinge leaf. By tapping up with a punch on the end of the pin opposite the head, the pin can be removed.

Out-swing door hinges have an anti-pick option. The door panel must be open to gain access to a set screw on the hinge leaf. The screw must be backed out to allow for the removal of the hinge pin. Slide the panel away from the hinge to remove it. To replace, reverse the previous steps.

Condensation

During the process of creating a tighter, more energy efficient home, an increase in elevated indoor humidity presented itself. Older homes had been unknowingly designed and constructed with random gaps, which would allow for the release of warm, moist air and the replacement of cool, drier air. Newer construction methods do not allow for this natural air-to-air exchange, thus trapping any internally created humidity within the structure. Elevated amounts of humidity can cause condensation to form on cold surfaces. Sweaty, frosted or icy windows are all forms of condensation problems. Most assume that these are a problem with the window but, in fact, these are a symptom of excess humidity in the home. Condensation on your windows could be an indicator that other moisture problems could develop, including mold

or mildew on cold exterior wall surfaces, peeling paint, wood rot and the failure of wall insulation.

Relative humidity is a measure of how much moisture air will hold relative to the maximum it could hold at a given temperature. Warmer air can hold more moisture than cool air. When warm, moist air comes into contact with a cold surface it takes on its liquid form, much like a glass of ice water on a hot summer day. Indoor humidity must remain at a level that will not permit air to condense on the glass surface.

Indoor humidity levels should be monitored to eliminate the possibility of condensation. The chart below illustrates recommended winter humidity levels:

Outdoor Temp.	Indoor Humidity@70°F
-20°F or below	not over 15%
-20°F to -10°F	not over 20%
-10°F to 0°F	not over 25%
0°F to +10°F	not over 30%
+10°F to +35°F	not over 35%

These are the recommended humidity levels, and may not be applicable for every household. Differences in glass types (LoE vs. clear) will allow for variances in humidity levels. Window condensation is a good indicator as to the maximum allowable humidity level. If your windows begin to sweat, the humidity in your home is too high.

Window Safety

Sash Opening Limiting Devices

- Always refer to applicable building codes when considering the purchase, installation and application for use as a Window Opening Control Device (WOCD). Also refer to ASTM F2090-10 for additional information.
- If Window Sash Opening Limiting Devices are going to be installed, carefully follow all information provided with the Window Sash Opening Limiting Devices, including installation, operation and safety information. Proper installation of Window Sash Opening Limiting Devices, pursuant to applicable building codes, ASTM F2090-10, and the included installation information, along with application of tags/labels including the safety instructions left attached for the homeowner, allows these devices to be used as Window Opening Control Devices.
- Supervision is still required around windows where Window Sash Opening Limiting Devices have been installed.

National Window Safety Council Tips

- Keep windows closed and locked when not in use for ventilation.
- Avoid placing furniture that young children can climb on near windows.
- Do not lean on screens or rely on them to prevent a window fall – insect screens are designed to keep bugs out, not to keep children in the home.
- Supervise children to prevent them from playing near windows, balconies or patio doors.
- Install building code-compliant devices such as window guards (with quick-release mechanisms in case of fire).
- Create soft landing surfaces (i.e., bushes or plant beds) to help prevent serious injuries in case of a fall.
- Have and practice a family escape plan, and teach children how to safely use a window to escape during an emergency.
- When performing spring repairs, make sure windows are not painted or nailed shut, as you must be able to open them to escape in an emergency.

Visit the window safety section of the NSC website (www.nsc.org) to learn more.

Warranty Claim Procedure

If you have any questions regarding this warranty or have a claim under the provisions of this warranty (your "Claim"), please contact your local authorized independent Windsor distributor or one of our manufacturing facilities listed on the back of this brochure. To process a Claim, you must furnish the glass code (numbers and/or letters printed within/upon the insulated glass unit). If you have questions about locating the glass code, please contact one of the Windsor facilities OR REFER TO THE SUPPORT PAGE ON OUR WEBSITE. You must notify your local independent Windsor distributor or Windsor of any defects within a reasonable time, but no later than 30 days after the defect is discovered or reasonably should have been discovered, and within the period covered by the warranty. Windsor may require any defective parts be returned to Windsor or our closest distributor. In order to process a Claim, Windsor reserves the right to inspect the product before it is removed or modified in any way. Windsor field visits may result in service charges if a non-warranty site survey is required and/or requested.

Response by Windsor

Windsor will have 30 days to respond to your Claim, with an explanation of what Windsor is willing to do relative to your Claim. Please keep in mind that this response may include an explanation of some action Windsor would like to take, such as conducting further investigation, or it may state that Windsor is not willing to take any action. We point this out to make it clear that Windsor is committing to respond to your Claim, not agreeing to remedy the problems described in every Claim it receives. If you are in any way dissatisfied with Windsor's response to your Claim, you must follow the steps of Windsor's Dispute Resolution Process as outlined below.

ATTENTION! This document contains an arbitration agreement and jury-trial and class-action waivers that affect your legal rights. By purchasing, installing or using this product without opting out as provided below, you agree to arbitrate any dispute you may have with Windsor relating to your Windsor products and to waive your rights to a jury trial and to participate in class-action or class-arbitration proceedings relating to any such disputes. **YOU CAN OPT OUT OF THIS ARBITRATION AGREEMENT AND THESE WAIVERS AS SET FORTH BELOW.**

Dispute Resolution Process

You and Windsor agree that any Dispute arising out of or related to the Windsor products shall be resolved pursuant to the terms of the Dispute Resolution Process defined in this warranty. The term "Dispute" shall mean any and all claims based on any theory (including, but not limited to, contract, warranty, tort, product liability, strict liability, fraud, consumer protection, subrogation or any other applicable statute, regulation, ordinance or common law) arising out of or related to your Windsor products (including, but not limited to, the design, manufacture, sale, distribution, marketing, warranty, service, use, performance, installation or purchase of your Windsor products) and/or the validity or enforceability of this Warranty and/or the Arbitration Agreement.

Notice of Dispute

The first step in the Dispute Resolution Process is for you and Windsor to attempt to resolve your Dispute informally. To initiate the Dispute Resolution Process, you must provide Windsor with a Notice of Dispute. You can do so either by visiting www.windsorwindows.com/support, which will take you to a form that you need to complete, or by calling Windsor at 1-800-218-6186.

Response by Windsor

Windsor will have 60 days to respond to your Notice of Dispute by providing a written explanation of what Windsor is willing to do relative to your Dispute.

Arbitration Agreement and Jury-Trial and Class-Action Waivers

If you and Windsor are unable to informally resolve your Dispute to your satisfaction, you may seek to formally resolve your Dispute through arbitration. BY PURCHASING, INSTALLING OR USING THIS PRODUCT WITHOUT OPTING OUT AS PROVIDED BELOW, YOU AGREE TO ARBITRATE ANY DISPUTE YOU MAY HAVE WITH WINDSOR RELATING TO YOUR WINDSOR PRODUCTS AND TO WAIVE YOUR RIGHTS TO A JURY TRIAL AND TO PARTICIPATE IN CLASS-ACTION OR CLASS-ARBITRATION PROCEEDINGS RELATING TO ANY SUCH

DISPUTES. The full terms and conditions applicable to this Arbitration Agreement and these waivers are set forth in Windsor's "Arbitration Agreement," which is incorporated herein by reference and is available at www.windsorwindows.com/support or by calling Windsor at 1-800-218-6186.

Arbitration Opt-Out Option

YOU CAN OPT OUT OF THE ABOVE ARBITRATION AGREEMENT AND WAIVERS. To do so, you must notify Windsor within 90 calendar days of the date you purchased or otherwise took ownership or other interest in your Windsor products either by visiting www.windsorwindows.com/support and completing the Opt-Out Form located there, or by calling Windsor at 1-800-218-6186. Opting out of the Arbitration Agreement will not affect the coverage provided by any warranty applicable to your Windsor products.

Failure to Follow Procedures or Processes

The failure to follow any of the steps outlined in the Claims Procedures or Dispute Resolution Process sections of this document does not alter, waive or void any of the terms of this document. Opting out, as described above, is the only way to alter, waive or void the Arbitration Agreement and waivers described herein.

Applicable Law and Severability

This Dispute Resolution Process, including, but not limited to, issues related to its enforceability and effect, will be governed by the laws of the State of Minnesota without regard to conflict of law principles. If any term(s) of this Dispute Resolution Process, Arbitration Agreement and/or waivers is/are found to be invalid or unenforceable in any particular jurisdiction, that term will not apply to that issue in that jurisdiction. Instead, that term will be severed with the remaining terms continuing in full force and effect.

Effective on Pinnacle and Legend products manufactured after 1/15/2018.