Caring for your windows + doors

An owner's guide

Fixed Windows
Dual Action Tilt + Turn Windows
Dual Action Tilt + Turn Doors
Terrace Swing Doors
Tilt + Glide Doors

Version 1.0.3

innotech
windows + doors

Contents

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Beautiful living, for generations

At Innotech we take pride in our technology, quality and craftsmanship. Every day we seek to build products that will stand the test of time and provide years of service, protecting homes and providing their occupants with a comfortable and healthy environment.

Rest assured,

We are as committed to your satisfaction as we are to the quality of our products; not just for today, but for years to come.

We present you with this informative guide to help you get the most from your investment. With a little care and routine maintenance, your Innotech products will be sure to perform and look their best for many years.

We suggest you take a few minutes to read this guide so you feel comfortable operating, cleaning, and maintaining your new windows and doors.

In addition to the information in this guide you can find additional resources at **www.innotech-windows.com/clientcare** on topics such as operating modes, alarm contact installation, hardware adjustments, and so on.

At any time, if you require assistance or have questions, you may contact our head office toll free at 1.866.854.1122.

1 Maintenance and long term performance

Windows and doors are subjected to many kinds of dirt, debris and other contaminants over time. Ongoing care and maintenance at regular intervals helps to ensure that they attain their intended service life, maintain optimum performance, and are not subject to premature wear.

Failure to properly maintain the windows and doors may result in reduced air and water tightness, in premature wear of the operating components, and may void provisions of the warranty.

If you encounter cleaning, maintenance or operation problems not covered by this document, contact your Innotech dealer or Client Care at Innotech Windows + Doors.

1.1 Maintenance by other parties

WARNING!

Improper cleaning methods can permanently damage frame and glass finishes.

If ongoing care and maintenance are performed by parties other than the homeowner, these instructions must be provided to the responsible parties. It is not possible to describe every condition that maintenance and cleaning staff will encounter. If those responsible for maintenance and cleaning encounter problems not covered by this document, they must contact your Innotech dealer or Client Care at Innotech Windows + Doors.

1.2 Maintenance record keeping

Innotech recommends that you maintain and clean Innotech windows and doors at regular intervals, and that you maintain a record of actions performed in the event you have a warranty claim.

1.3 Maintenance intervals — typical properties

Tip

If you notice operational problems or damage to your windows or doors, or missing gaskets or other components that have been removed, contact your Innotech representative. An **simple service call** may solve the problem and prevent additional damage from affecting the performance of your windows and doors.

Typical maintenance includes the following items.

Typical maintenance schedule

Task	Frequency	Comment
Inspect window and door sills and clean if necessary. Ensure gaskets are clean and drainage holes are not obstructed.	12 months	Record
Lubricate hardware.	12 months	Record
Clean vision glass.	As needed	
Clean interior frame surfaces.	As needed	
Clean exterior of frames.	As needed	

1.4 Maintenance intervals — coastal properties

Coastal properties require additional maintenance as they are subject to salt deposits and wind driven sand. Typical maintenance concerns are inspecting for sand and dirt accumulation at window and door sills when sashes are open; inspecting and removing sand and salt deposits from operating hardware and exposed metal surfaces; and applying additional corrosion protection to exposed metal surfaces after cleaning. Perform maintenance at indicated frequency *or more often* if sand is accumulating in sills when sashes are opened.

Metal surfaces may develop whitish deposits from prolonged exposure to airborne and waterborne salt. This condition is not considered failure of the corrosion protection.

Coastal maintenance schedule — properties exposed to salt and/or wind-driven sand

Task	Frequency	Comment
Inspect window and door sills and clean if necessary. Ensure gaskets are clean and drainage holes are not obstructed.	2 months, more often if necessary	Record
Inspect exterior hinges and metal components, rinse off salt deposits and dry.	2 months, more often if necessary	Record
Inspect sash hardware and exposed metal surfaces. Wipe surfaces with a damp cloth to remove sand and salt deposits.	6 months	Record
Apply corrosion protection to operating hardware on sash edges, to lock keepers on frames, and to screen clips.	6 months	Record
Lubricate hardware.	6 months	Record
Clean exterior vision glass.	As needed	Record
Clean exterior of frames.	As needed	
Clean interior frame surfaces.	As needed	
Clean interior vision glass.	As needed	

2 Cleaning

2.1 Cleaning window and door frames

Caution

Do not wash frame or glass surfaces when they are hot. Glass can crack from sudden temperature changes and the rapid drying of wash water on dark, hot frames can leave deposits.

Tip

Do not use a dry cloth to wipe the frame. This will charge the frame with static electricity which will attract dust and dirt to the frame.

WARNING!

Use of high pressure water jets to clean windows and doors can permanently damage finishes and lead to water intrusion problems.

WARNING!

Do not use metal scrapers to remove deposits from glass. Use of scrapers to clean the glass surface may lead to permanent scratches and glass breakage.

Open each window and door sash. Inspect the interior surfaces of the frame and remove sand, dirt and other debris. Make sure the weep holes in the bottom of the frame are not blocked and are free of debris.

Remove surface deposits carefully to avoid damaging the finish. Use a soft brush or a damp cloth to gently remove abrasive materials. Avoid scraping, vigorous rubbing, or scratching the surface of the window or door. Never use abrasive methods, sand paper, or steel wool.

If necessary, wash frames with mild soap or neutral pH diluted detergent and water. Use soft cloths or sponges that are free of abrasive material. Do not use cleaners containing pumice or abrasive compounds, or any kind of chemical solvent. Solvents can permanently damage the frame finish. Do not use vinegar or acidic solutions as they may affect the hardware finish.

Inspect the flexible gaskets. Use a damp cloth to wipe off dirt or other deposits. The gaskets should be soft and flexible and free of surface deposits.

> **Note.** If the gaskets appear to be removed, dislocated or damaged, or if the sashes do not open or close properly, contact your Innotech dealer or representative.

Water under high pressure, such as a high-pressure hose or pressure washer, should not be used to wash or rinse windows and doors. High pressure water jets can result in scratches and premature wearing of exterior finishes and drive water into the wall assembly.

Scratches or dents can only be repaired by qualified service personnel.

2.2 Cleaning glass

Clean glass with mild soap or neutral pH diluted detergent and water, conventional window cleaning solution, or isopropyl alcohol. Retail glass cleaning products such as Windex ® are acceptable, as are Norwex ® brand glass cleaner and cloths. **Do not use vinegar or organic solvents such as acetone or paint thinner as they may damage the frame and metal finishes.**

Apply the cleaning solution by spray or using a soft, clean, grit-free cloth. Use light to moderate pressure, using a circular motion, when wiping the cleaning solution on the glass surface.

Rinse immediately with clean water, removing excess water with a squeegee or lint-free cloth.

After renovations, remove surface paint, plaster, cement, or other deposits carefully to avoid damaging the surface finish. Small areas of paint or sealants may be removed from glass with careful use of a new, sharp razor blade. Avoid scraping, vigorous rubbing, or scratching the glass.

3 Ventilation and condensation

Innotech windows and doors are highly energy efficient, ENERGY STAR ® qualified, and resistant to condensation. However if your home is not equipped with a fresh air ventilation system, you may need to open your windows regularly to ensure adequate fresh air and to prevent condensation from occurring on the indoor surfaces of the glass and frames.

You will find ventilation is most effective and comfortable with windows opened in the Tilt position.

Tip

To achieve a low air flow "trickle ventilation" effect, turn the handle between the Tilt and Turn positions at an angle of approximately 45° and pull towards you slightly.

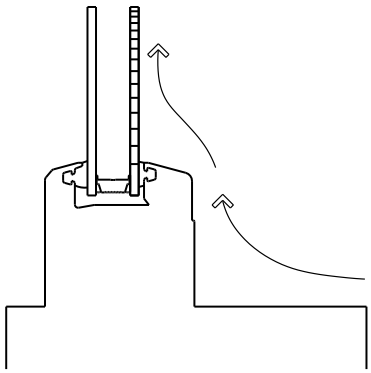
Condensation occurs when warm, moist air comes into contact with a cold surface and the moisture in the air reverts to its liquid form. Condensation can occur on both indoor and outdoor surfaces.

While energy efficient windows are significantly more resistant to condensation, it can still occur if the indoor humidity is sufficiently high. The table below shows the relative improvement in center of glass condensation resistance between dual and triple pane energy efficient windows.

Humidity levels that can cause indoor glass condensation [1]

Outdoor temperature		Single pane clear glass	Dual pane clear glass	Dual pane low E argon	Triple pane dual low E
0°C	32°F	35%	60%	77%	86%
–10°C	14°F	19%	47%	67%	81%
–20°C	-4°F	12%	38%	58%	75%
–30°C	-22°F	6%	30%	48%	68%
–40°C	-40°F	4%	22%	38%	63%

1. The data is interpolated from graphs published by the Efficient Windows Collaborative at www.efficientwindows.org and represents the minimum relative humidity that would cause condensation on the center of glass under controlled simulation conditions. Because of variations in air flow and edge of glass conditions it does not predict the exact point at which condensation will occur in any given home.



Indoor condensation typically occurs within one or two inches of the bottom of the glass. This is because warm air rises, making the bottom of the window the coldest part, and because air flowing past the window cannot reach the bottom edge of the glass where it steps back from the face of the window frame.

3.1 Indoor condensation

Occasional instances of indoor condensation are normal. Persistent, long term condensation is a sign of excessive humidity and lack of ventilation, and can affect health by encouraging the growth of mold and lead to deterioration of building finishes.

What are some of the causes of humidity in the home? Warm temperature, for one: warm air holds more moisture than cold air. Plants are another source as they release large amounts of water vapour into the air. Steaming and boiling food without adequate ventilation also releases moisture into the air, as do humidifiers, aquariums, interior fountains, and clothes dryers not vented to the exterior.

Fact

Newly constructed homes have higher than normal humidity levels for the first year or two as construction materials such as concrete, wood and gypsum board release moisture acquired during construction. These higher-than-normal humidity levels stabilize after one or two heating seasons.

Persistent condensation on indoor surfaces of Innotech windows or doors is a sign of excessive humidity in the home, insufficient ventilation, and/or a lack of air flow which can occur when windows have deep sills or are covered with curtains or blinds.

If indoor condensation persists, we suggest you contact a certified heating, ventilation, and air conditioning (HVAC) contractor who may be able to suggest solutions to improve your home's ventilation.

To prevent condensation from occurring on windows, interior window accessories such as curtains, blinds and valances must not inhibit or impede the movement of air at the surface of the window. Any restriction of air movement will reduce the condensation resistance and thus increase the possibility of "sweating" on the window. Ensuring adequate room ventilation and conditioned air flow over window and door surfaces can reduce the potential for condensation.

3.2 Indoor condensation on replacement windows

Reducing or eliminating indoor condensation is one reason people replace old and drafty windows and doors. After window and door replacement the home is warmer and more air tight, however condensation can still occur.

Properly installed replacement windows and doors are much more air tight than the products they replace. While this increases comfort and saves energy, the reduced air leakage may result in inadequate ventilation. This can contribute to higher humidity levels and occasional condensation.

3.3 Outdoor condensation

The moisture that sometimes forms on the outdoor side of high performance windows and doors is dew, the same kind of condensation that you can see many mornings on your car windshield or on lawn furniture. Dew occurs naturally when the temperature becomes cold enough for moisture in the air to condense on cold surfaces. Outdoor condensation is most likely to occur in the Spring and Fall when warmer days are followed by cold, clear nights. Depending on where you live, it may only occur a few times a year.

Why does condensation appear on the outside of better windows and doors?

Windows and doors that are more effective at keeping heat indoors are colder on the outside. Why? Because less heat escapes through them to warm the outer surfaces. The cold outer surfaces indicate that the windows and doors are doing a good job of keeping the heat indoors, where it belongs.

Why does exterior condensation form on some surfaces and not on others?

Not all exterior surfaces are at the same temperature. Exterior surface temperature can be affected by many things such as sunlight warming some areas more than others, heat given off by nearby warmer materials or laundry vents, localized air currents, and so on.

Can exterior condensation damage the windows or doors?

Innotech windows and doors are unaffected by exterior moisture. Exterior condensation has no effect on their performance or exterior finishes.

Should I be worried about exterior condensation?

Not at all. Dew is a natural phenomenon and doesn't mean the windows or doors are malfunctioning or leaking air. It is, in fact, a sign that your windows and doors are very energy efficient, doing a good job of keeping the heat indoors when it is cold outside.

4 Attaching accessories

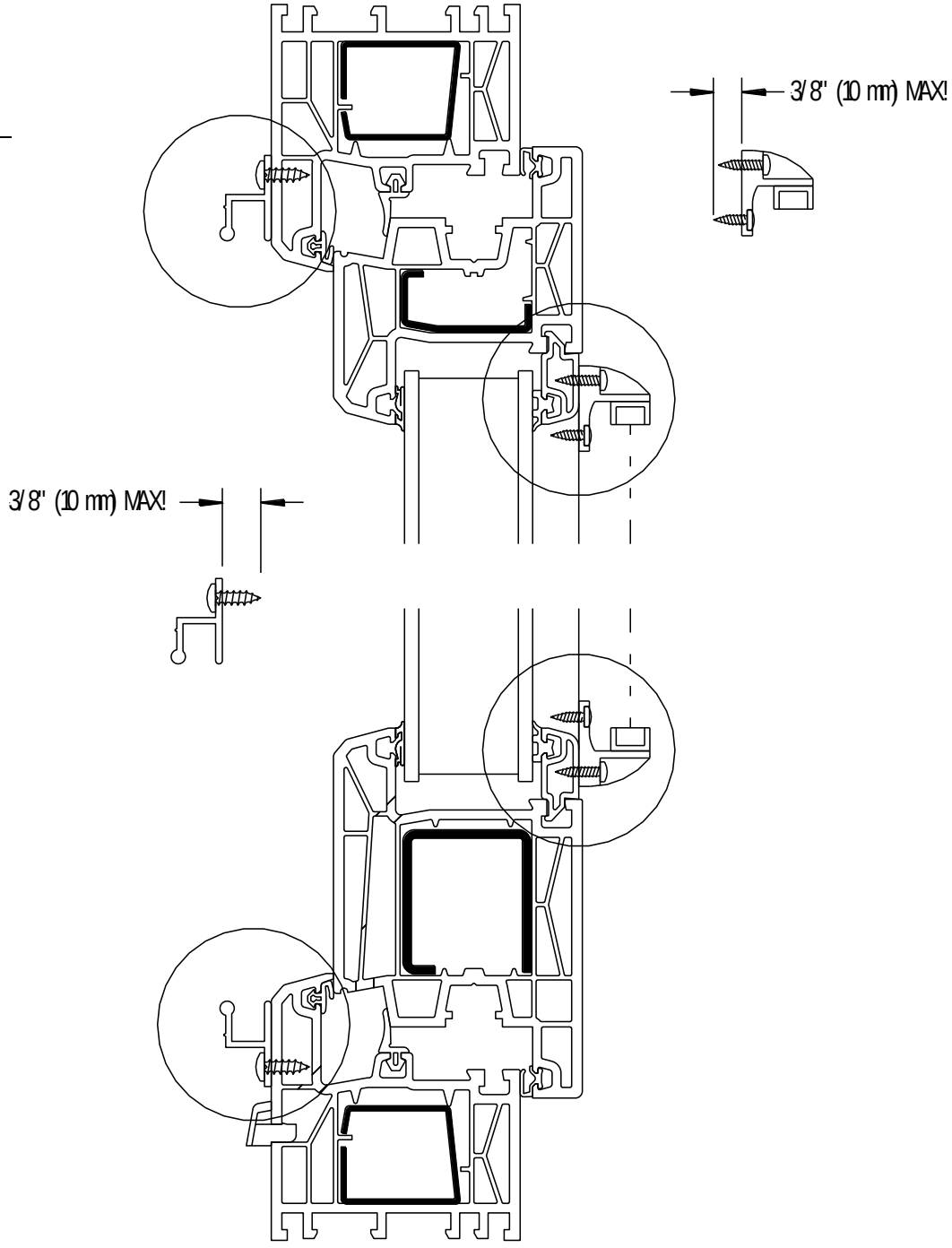
WARNING!

Do not drill holes deeper than 3/8" (10 mm) into frames. Drilling deeper may lead to air or water tightness problems not covered by warranty.

Tip

To prevent screws from stripping frame material, predrill holes slightly smaller than screw size, use coarse threaded screws, and turn them by hand.

You can attach accessories such as retractable screens and window blinds to the interior and exterior surfaces of Innotech window and door frames provided the drill bit and screws **do not penetrate the frames more than 3/8" (10 mm)**. The illustration shows some typical attachment conditions.



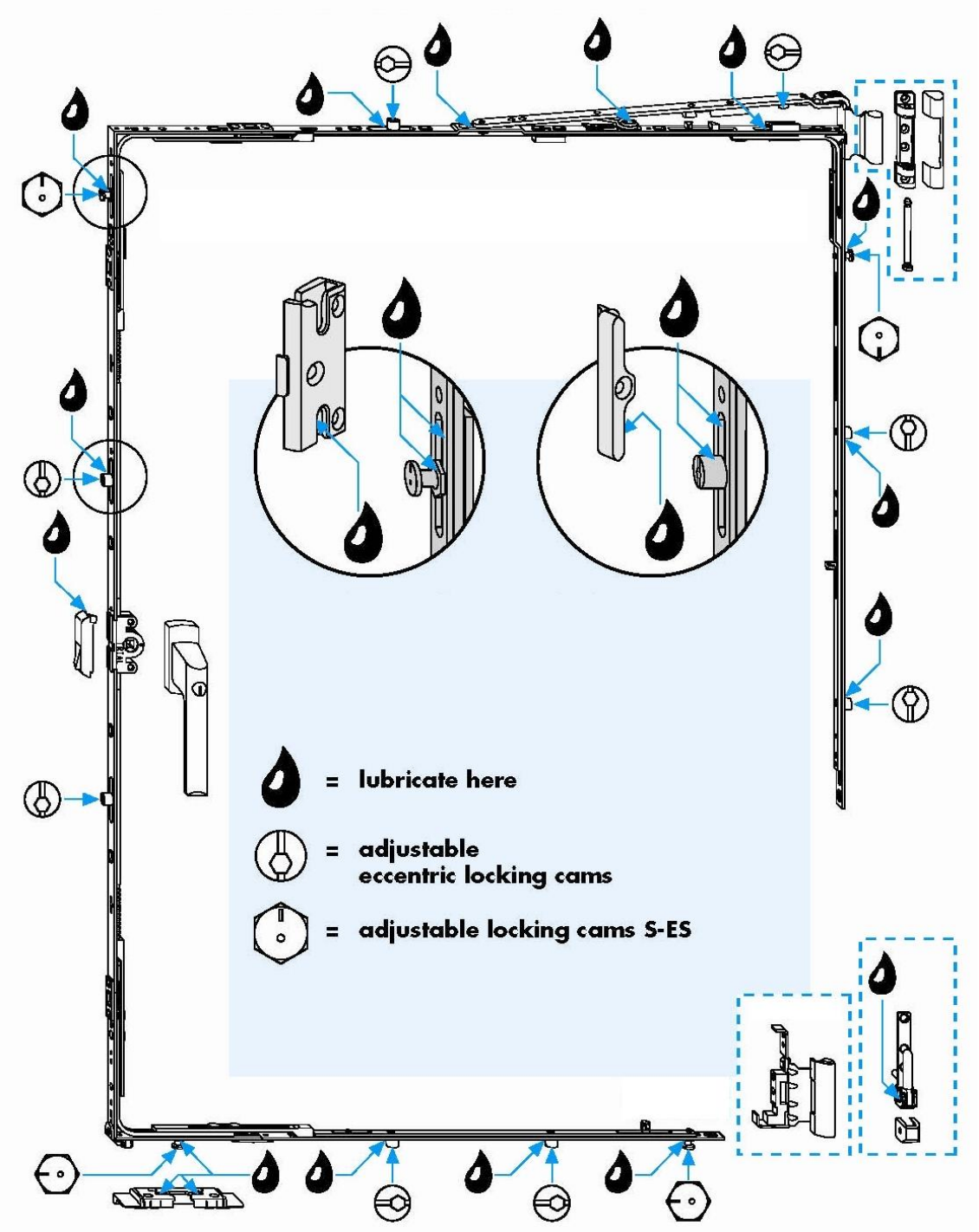
5 Maintaining hardware

WARNING!

Do not use lubricants containing silicone OR graphite. Use of such products may permanently damage product finishes.

Inspect the metal operating hardware mechanism on all four sides of each operating sash. Use a soft brush or a damp cloth to wipe away dust and construction debris. Apply a high quality light sewing machine oil, silicon spray or silicon synthetic grease to the mechanism as shown in the diagram.

This diagram shows typical hardware lubrication points. Apply several drops of oil at all locking cams and strike plates.



6 Glossary

The following terms are used in Innotech window and door publications. Many are common to all windows and doors. Definitions particular to Innotech are underlined.

Anchor. A device used to attach a window or door to the building structure.

Anchoring method. A method for structurally attaching a window or door to a building's structure. Innotech products may be installed using several anchoring methods. The most common are Strap Anchors and Sill Angles.

Brick molding. A style of molding commonly used between the edges of a window or door frame and the exterior finish.

Drain cap. A cap that shields the drainage holes at the sill of a window or door frame from wind and flowing rainwater. Also called a **wind cap**.

Drywall return. A type of molding applied to the interior edges of a window or door frame to receive gypsum board.

Coupling or Coupling Mullion. A type of mullion that connects (couples) two separate frames.

Flange or Mounting Flange. A fin extending from the edge of a window or door to help the installer position it in the wall. The flange is not to be used for anchoring an Innotech window or door to the building structure.

Frame. The structural member that surrounds the window or door and retains glass. A frame has a head (top member), sill (horizontal bottom member) and jambs (vertical members on the left and right edges). A frame may also have mullions, vertical members that span from the head to the sill; and transoms, horizontal members that span between mullions or jambs.

Grid. A decorative bar that simulates the appearance of a muntin bar (narrow bar that separates panes of glass in single pane wooden windows). Innotech has three types of grids:

- **In-glass grids.** Aluminum bars in between the panes of glass in a sealed insulating glass unit.
- **On-glass grids.** PVC bars applied to both sides of the surface of the glass.
- **Combined In-glass/On-glass grids.** To simulate the appearance of true divided lites separated by muntins.

Head. The horizontal frame member at the top of the window or door.

Insulated panel. An opaque panel composed of rigid foam insulation bonded to thin sheets of aluminum or plastic. Panels are installed in window or door sashes in the same way as insulating glass.

Insulating glass, Insulating Glass Unit (IGU). A glass panel composed of two or more panes of glass assembled with spacers and sealants.

Jamb. Vertical members on the left and right edges of a window or door.

Lite or Light. An individual panel of glass in a window or door sash. A sash may have a single lite, or be subdivided into multiple lites.

Mullion. A vertical member that spans from the head to the sill.

Muntin. A vertical or horizontal bar that divides panes of glass in a wooden window sash. Innotech windows and doors use grids to simulate the appearance of muntins. Muntins are used to create divided lites, the effect produced when the lite in a sash is divided with decorative bars.

Rail. One of the two horizontal members that bound a sash: the top rail and the bottom rail.

Sill. The horizontal frame member at the top of the window or door.

Sash. The operable element of a window or door that is opened and closed. A sash is composed of top and bottom rails (horizontal members), as well as stiles (vertical members). The hinge stile is the stile with hinges and the lock stile has the handle.

Sash bar. A vertical or horizontal framing member that divides the glass in a sash into separate pieces of glass. Like a muntin, a sash bar divides lites of glass. A sash bar is wider than a muntin because it protects the edges of the insulating glass units. A sash bar is like a mullion or a transom in a sash.

Sill Angle. A 1-1/2" x 1-1/2" 18 GA galvanized steel angle used to attach the sill of a window or door to the building structure.

Stile. One of the two vertical members that support glass in a sash: the hinge stile and the lock stile.

Strap Anchor. Flat galvanized steel attachment clips designed to engage the edge of Innotech window and door frames. Strap Anchors are clipped to the window or door frame before it is placed in the rough opening and are attached to the building structure with screws.

Transom. A horizontal member that spans between mullions or jambs.

7 Additional resources

Additional resources are available on the Innotech website at **www.innotech-windows.com/clientcare**, including but not limited to:

Alarm Contact Installation

Final Cleaning Instructions

Hardware Adjustments

Installation Instructions

Operating Modes

Pre-Installation Planning Instructions

For more information on these quality products please contact:

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