



Caring for and maintaining your Milgard® Moving Glass Wall System will help ensure that all of the products within your home operate at the highest performance level possible. By properly caring for each of your products you can save time and money, as well as protect against nullifying your product warranties. Regular inspections and maintenance are the most effective way to ensure your doors stay in proper working condition.

Introduction

This Care & Maintenance Guide provides detailed information that will help keep your door systems operating smoothly for a long time. To protect your investment in these products it is imperative that you take time periodically to both clean and inspect your doors at the intervals identified in this guide.

This Care & Maintenance Guide includes the following sections:

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This Care & Maintenance Guide is intended only as a general handbook and does not contain all information relating to proper care and maintenance of Milgard® Moving Glass Wall Systems or every conceivable care or maintenance issue. For additional or more detailed service procedures,



installation instructions, product information, or to find a maintenance or service professional in your area, contact your Milgard Dealer.

The information contained herein is believed to be accurate and reliable. However, Milgard Windows & Doors assumes no responsibility for errors, omissions, or misinterpretations and therefore, reliance on the information provided herein is done so at the risk of the party so relying.

The information in this Care & Maintenance Guide may change periodically without notification. The most up-to-date version of this Care & Maintenance Guide is available at the above website.

Care During Installation

Protect Finished Products

All Moving Glass Wall Systems are classified as “finished products” and thus must be protected and handled with extreme care. Although all our finishes possess exceptional resistance to corrosion, fading, discoloration and wear, the product can be damaged by harsh chemicals, harsh elements, neglect and abuse. In an effort to protect the finished product and in particular their finished surface, extreme care must be taken to install the product properly, to protect it during construction, and to clean and maintain all windows and doors with the appropriate materials, as detailed below, for the life of the product. **Failure to properly maintain products can void the express limited warranties.**

Follow Installation Instructions

It is imperative that all Moving Glass Wall Systems be installed by an experienced installation professional. If you need assistance in locating an installer, please contact your Milgard Dealer. All Milgard products must be installed in strict compliance with American Architectural Manufacturers Association (“AAMA”) requirements and applicable codes and regulations for each product type. For help finding a Milgard Dealer please visit: www.milgard.com/dealers

Keep Your Windows and Doors Clean During Construction

Upon completion of installation of your Moving Glass Wall System it is critical that your product is cleaned thoroughly. You can do this yourself (following the instructions described below), or contact your Milgard Dealer who may recommend an experienced cleaning professional to provide a deep clean of your products.

Take Steps to Avoid Corrosion During Installation

In addition to following installation instructions, the following steps should be taken to avoid corrosion during installation and ensure proper performance of your Moving Glass Wall System:



1. Avoid galvanic corrosion by making sure that dissimilar metals are not placed in contact or close proximity to each other. Evidence of this type of corrosion exists when you see a white, chalky substance on your threshold or frame material. This white substance is typically formed as a result of these differing metals touching and reacting via some outside agent (typically water). To avoid galvanic corrosion, you can:
 - Separate any metals in the vicinity of our product with some form of static, non-moving material that protects against chemical reactions.
 - When cleaning your Moving Glass Wall System, make sure to dry the product thoroughly and ensure that sitting water is not left on product materials or any other metals in the vicinity.
2. Avoid caustic corrosion by protecting your windows and doors from chemicals that can damage the finish, hardware, or glass. In particular, you should seek to avoid any stucco or concrete splashing on the frame of your Moving Glass Wall System products. If these spills are not removed immediately, the caustic agents in these materials can permanently damage your doors and glass. Aluminum frames are susceptible to corrosion caused by various chemicals on a construction site. It is imperative that all products are cleaned carefully after installation is complete. In addition, it is recommended to protect door thresholds protective tape or box frames to keep caustic agents from damaging the aluminum in these areas.

Label Removal

All Moving Glass Wall Systems will come with a product label attached to the glass. Prior to completing your project, you will need to remove these labels. Please follow these steps for removal:

1. Slowly peel the label away from one corner.
2. If label tears or sticks, moisten with soapy water and gently scrape with plastic putty knife.
3. Stubborn labels can be soaked with soapy water and covered overnight with plastic wrap, and then removed the following day with a plastic putty knife.

Additional glass cleaning information may be available directly from the glass manufacturer. Contact your Milgard Dealer for details.

Cleaning Precautions and Recommendations

1. Never mix cleaners or solvents. Certain combinations can be dangerous and reduce effectiveness.
2. Do not lean on doors or door screens. They are not strong enough to protect against falling through.
3. Read and follow the safety information provided on p. 17.
4. Always use help when working with a large door to avoid injury.



5. Use caution when cleaning the exterior side of windows and doors above the ground level.
6. Carefully follow directions for all commercial cleaning products, including all warnings, cautions, disposal instructions, ventilation, safety gear, etc.
7. Never use a power washer or garden hose to spray at your doors. The pressure from these water sources can cause seal failure and allow water to penetrate through your doors.
8. Avoid using metal tools, razor blades, or abrasive cleaners. These methods can damage frames and scratch your glass.
9. Never allow aggressive cleaners to spill onto vinyl, aluminum, or wood frames. Rinse and dry off immediately.
10. Do not allow cleaners to puddle or collect on the edges of your glass or glazing materials.
11. Annual maintenance should be performed in temperate weather conditions.
12. Avoid excessive rubbing or scouring, which can scratch glass or damage materials.
13. Clean and rinse one panel at a time, to avoid cleaning agents sitting too long on materials.
14. After market tints or films are not recommended, as they can cause damage to the glass or the sealant used to secure the glass to the frame thus voiding your warranty.
15. The cleaning described in this Care & Maintenance Guide should be performed a minimum of once per year and should be performed once per month if the units are installed within two (2) miles of salt water ("Coastal Applications") or other areas exposed to extreme weather, including heavy rain, snow, hail, wind, sandstorms, or flooding.



Cleaning Materials

The following are essential tools and cleaning materials that will be needed to properly clean and maintain your Moving Glass Wall System.

Soft bristle brush	Baby shampoo, mild soap and water (except on hardware)
Spray bottle	Soft, non-abrasive, absorbent chamois or dry cloths
Vacuum cleaner	Commercial glass cleaning products (use only for difficult to remove stains)
Sponge	Plastic putty knives (for paint or putty removal)
Denatured alcohol Solvent	Plastic wrap (for label removal)

Cleaning Glass

Below you will find directions for cleaning the glass surfaces of your Moving Glass Wall System.

General Cleaning

Milgard recommends that you do a general cleaning of all your glass surfaces a minimum of once per year and once per month in Coastal Applications or other areas exposed to extreme weather. Please follow these steps for general cleaning:

1. Prepare cleaning solution (1 tsp baby shampoo or mild soap to one gallon of water).
2. Rinse surface with clean water from top to bottom (do not use a high pressure hose).
3. Clean with mild soap and water and sponge or soft brush with uniform pressure horizontally, then vertically.
 - Be sure to quickly rinse and dry any run-down. Do not allow cleaning solutions to collect or puddle on surfaces of your doors.
4. Promptly rinse thoroughly with clean water (often sponging while rinsing can be effective). Do not allow the cleaning solution to dry on the surface.
5. Wipe dry the window frame and sill with dry cloth or chamois (do not use same cloth used on glass).
6. If necessary, repeat steps above until clean.

Stubborn Stain Removal

For more stubborn stains on your glass surfaces, a commercial glass cleaning product may be necessary. Please follow these steps for stubborn stain removal:

1. Apply a small amount of commercial glass cleaner directly to the stain. Avoid spilling or dripping down the glass.



2. Some persistent stains may need higher strength cleaning solutions that contain active ingredient chemicals such as mineral spirits. Take special care to follow instructions carefully when using these types of cleaners.
3. Rinse thoroughly with clean water and dry.

Paint Removal

Removing paint from glass can also be difficult. Please follow these steps for removal:

1. Soak dried latex paint drips with warm water and baby shampoo solution.
2. Wipe with a damp cloth or sponge.
3. If needed, scrape gently with a plastic putty knife. Repeat soak and scrape.
4. If necessary, repeat steps above until clean.



Cleaning Aluminum

Below you will find information on cleaning the aluminum surfaces on your Moving Glass Wall System. Your products will either have a painted finish or an anodized finish. Milgard recommends that you inspect and clean these aluminum surfaces a minimum of once per year and once per month in Coastal Applications or other areas exposed to extreme weather. Please follow these instructions for inspection and cleaning:

1. Inspect all aluminum surfaces for scratches or cracks in the finish.
2. Pay close attention to bare aluminum (edges and weep holes) and areas of no finish.
3. Bare aluminum will oxidize over time (oxidation is a natural occurrence that produces a coating that wipes off as a dark, metallic-looking residue). Always address oxidation:
 - Dust or vacuum residue and wipe clean with damp cloth.
 - For optimum protection against oxidation, apply a coat of high quality car wax over the finish.
4. To clean the painted finish or anodized aluminum surfaces:
 - Wipe with sponge and water.
 - Dry with a soft cloth.
5. If soil still adheres, try these additional steps:
 - Sponge or lightly brush with mild soapy water.
 - Rinse and wipe dry with soft cloth.
6. If stubborn soil is still an issue, try these additional steps:
 - Wipe with mineral spirits and a clean soft cloth or non-abrasive nylon cleaning pad to remove grease, sealant, or caulking compounds.
 - Dry with a separate clean cloth.
 - Clean residue with sponge, mild soap and water, rinse, and let dry.

When working to clean aluminum surfaces it is very important to remember that you are cleaning a “finished product”. Be very careful to not do further damage to your finish by cleaning too aggressively. Be certain to not use any chemicals or other similar substances that can remove the color or gloss of the paint. Warning labels on cleaning products will identify them as such, and be sure to avoid use of these materials.



Wood Care

Timeliness in painting and finishing of wood is very important. After a unit is installed and has been exposed to the weather and/or interior humidity, it can be difficult to dry the wood sufficiently for good finish adhesion or damage may already have taken place. Unfinished wood surfaces will discolor, deteriorate, swell, or may bow and split. Exposed interior or exterior wood must be finish-coated immediately after receipt to control moisture gain and movement, which can cause warping and other problems.

Moisture is the enemy of wood. The primary purpose of finishing, in addition to aesthetics, is to protect the wood from moisture. During installation of the products, there may be a penetration of the wood by nails or other fasteners. It is very important to seal these, or any other penetrations, so as to reduce moisture invasion. This protection must also be continued as a maintenance item.

All pieces of wood are unique. Some pieces of wood will have more pronounced grain patterns than others. These are not defects in the wood or the finish. Stain color inconsistencies due to natural wood properties are not wood defects and can be controlled with proper finishing.

Be sure to follow the finish manufacturer's recommendations for finishing before applying finish to your door. Read and follow the manufacturer's safety recommendations and warnings on the container. When caring for your doors, always make sure to use adequate hand, eye, and ventilation protection.

Veneered Parts

Some interior surfaces are not solid wood, but covered with veneer, or a thin piece of wood. Veneered parts are engineered for enhanced strength, warp-resistance and surface consistency when applying paint or stain. Many times, it will not be obvious if a part is veneered or not. Due to the nature of veneer, all wooden parts should be treated as though they are veneered. Finishing veneered products is the same as finishing solid wood except it is possible to sand through the veneer. Components receive a factory finish and should not require further sanding. If light sanding is necessary, use closed grit 240 or finer.

Cleaning Hardware

Cleaning your hardware helps to maintain and restore smooth operation to moveable parts of your Moving Glass Wall System, as well as corrosion protection. Milgard recommends that you inspect and clean your hardware anytime doors are not opening or closing properly or a minimum of twice per year and once per month in Coastal Applications or other areas exposed to extreme weather.



When cleaning and maintaining your hardware, always do the following:

1. Clean any dirt/debris
2. Tighten any loose screws
3. Replace damaged hardware
 - Contact your Milgard Dealer for repair or replacement. **Please note that hardware replacement and related costs (including the cost of labor, installation, sales tax, finishing, and other associated costs) may not be covered by the express limited warranties.**

The following substances may damage protective hardware finishes. **Do not use:**

1. Vinegar-based cleaners
2. Citrus-based cleaners (lemon, etc.)
3. Paint removers
4. Window cleaners
5. Brick/siding washes
6. Any other industrial or abrasive cleaners

Cleaning

As stated previously, Milgard recommends that you clean your hardware a minimum of twice per year and once per month in Coastal Applications or other areas exposed to extreme weather.

Please follow these general steps for cleaning your hardware on your Moving Glass Wall Systems:

1. Use mild soap and water on a soft cloth or sponge; rinse and wipe dry. For stubborn dirt, use a soft bristle brush to gently scrub.
2. Apply high quality, non-abrasive car wax.
3. Re-install hardware.



Lubricating Hardware

Lubricating your hardware helps to maintain and restore smooth operation to moveable parts of your Moving Glass Wall System. Milgard recommends that you inspect and lubricate your hardware anytime windows are not opening or closing properly or a minimum of once per year and once per month in Coastal Applications and other areas exposed to extreme weather.

Always thoroughly clean all hardware before lubricating.

Lubricant Types

Different hardware requires different types of lubricants. The instructions below will identify the suggested lubricants as well as specifics on which types to use and how to apply them to individual Moving Glass Wall System products.

1. White or Lithium Grease
 - Protects metal surfaces against corrosion, reduces friction and wear on moving parts, and is an excellent multi-purpose lubricant.
2. Light Oil (such as 3-In-One)
 - Use for sliding or rotating joints.
3. Graphite (spray black carbon powder)
 - Use for door lock key ways and hinges. Apply carefully to avoid possible staining of parts.

Plastic Hardware

Most hard-plastic hardware parts (i.e. sash retainer latches) require periodic cleaning for smooth operation. Please follow the general cleaning method described above. Plastic hardware DOES NOT require lubrication.

Sliding Door Tracks and Jamb Liners

Sliding door tracks and jamb liners can become dirty and difficult to operate. Please follow these steps for cleaning/lubricating sliding door tracks from Milgard:

1. Carefully remove panels on sliding doors (hire a professional if this is too difficult).
2. Vacuum track or wipe with a soft cloth.
3. Apply spray silicone to dry, soft cloth. Wipe onto track, jamb liner, and/or weatherstrip. Do not apply silicone to pile (fuzzy) weatherstrip.
4. Re-install panels and slide back and forth to check for improved operation.



Sliding Door Rollers and Multi-Point Locks

It is important to clean/lubricate your sliding door rollers and all of your multipoint locking hardware for sliding doors and hinged doors.

1. Carefully remove door panels on sliding doors (hire a professional if this is too difficult).
2. Tip the door panel for better access to the rollers on the bottom.
3. Lubricate the rollers where the shaft goes through the middle of the wheels with light oil.
4. Lightly oil the multi-point lock at each latch point.
5. Spray the keyway (of all keyed cylinders) with graphite lubricant.
 - Contact your Milgard Dealer for assistance with lubricating, repairing, or replacing your hardware. **Please note that hardware replacement and related costs (including the cost of labor, installation, sales tax, finishing, and other associated costs) may not be covered by the express limited warranties.**



Inspections and Maintenance

Below you will find directions for basic inspections and cleaning techniques for your panels, weatherstrip, and weep systems.

Door Panels

Milgard recommends that you inspect and clean door panels, as described below, a minimum of once per year and once per month in Coastal Applications or other areas exposed to extreme weather.

1. Inspect stiles and rails for any visible damage.
2. Check glass for any cracks.
 1. For insulating glass units, look for moisture or fogging between the glass panes. Generally, this type of fogging is most visible on cold mornings.
 2. Check the sealant at the lower corners of the frame to ensure that it is still intact. Repair as necessary with 100% silicone sealant.
 3. Replace or repair damaged or failed glass.
 - Contact your Milgard Dealer for repair or replacement. **Please note that product replacement and related costs (including the cost of labor, installation, sales tax, finishing, and other associated costs) may not be covered by the express limited warranties.**

Bug Screens

Milgard recommends that you inspect and clean your screens a minimum of once per year. Please follow these instructions:

1. Inspect your screens for cuts, scratches, holes, or looseness.
2. Replace or repair damaged screens.
 - Contact your Milgard Dealer for repair or replacement. **Please note that product replacement and related costs (including the cost of labor, installation, sales tax, finishing, and other associated costs) may not be covered by the express limited warranties.**
3. Remove the screen.
4. Gently spray with water and lightly brush with a soft bristle brush until clean.
 - For dirt that is more difficult to remove, gently scrub with a soft bristle brush and with mild soap and water.
 - Rinse the screen material with a gentle spray.
4. Reinstall the screen when dry.



Weatherstrip

Milgard recommends that you inspect and clean your weatherstrip on doors a minimum of once per year and once a month in Coastal Applications or other areas exposed to extreme weather. Damaged weatherstrip can allow water to penetrate into your house and also causes energy loss due to air infiltration. It is imperative that you replace weatherstrip that is missing, torn, cracked, brittle, discolored, gummy, or that no longer “bounces back” when pressed down on. To inspect, clean, and repair please follow these instructions:

1. Avoid the use of sharp items near any weather stripping.
2. For cleaning:
 - Clean with a damp cloth or mild soap and water.
 - Rinse and dry thoroughly. Repeat if necessary.
3. For repair or replacement:
 - Carefully remove loose or damaged weatherstrip.
 - Reinstall weatherstrip.
 - Hold in place with tape for 24 hours.
 - Carefully remove the tape.
 - Contact your Milgard Dealer for repair or replacement. **Please note that the weatherstrip replacement and related costs (including the cost of labor, installation, sales tax, finishing, and other associated costs) may not be covered by the express limited warranties.**

Weep Systems

Milgard recommends that you inspect and clean your weep systems on Moving Glass Wall Systems a minimum of once per year in Coastal Applications or other areas exposed to extreme weather to ensure proper water drainage. Failure of water to quickly drain from the sill through the weep system may result in damage to the surrounding structure. To inspect and check the weep holes for blockage please follow these instructions:

1. Routinely clean the sill track with a vacuum or wipe thoroughly with a damp cloth.
2. Pour a small amount of water (approximately 1 cup) into interior sill track. If water drains out through the exterior weep holes the system is clean and clear. If not, continue to Step 3.
3. Insert a thin wire into the exterior weep hole in the frame or track. Be careful to not push the wire further than necessary to remove the blockage to avoid risk of damaging the glass.
4. Repeat step one until water runs clear to the exterior.
 - Contact your Milgard Dealer for repair or replacement. **Please note that the weep system replacement and related costs (including the cost of labor, installation,**



sales tax, finishing, and other associated costs) may not be covered by the express limited warranties.

Safety Information and Warnings

Fire Safety & Security

WARNING: In the event of an emergency, the inability to open and operate windows or doors can lead to serious injury or death.

1. Ensure all windows and doors can be opened in the event of an emergency:
 - Repair any broken hardware, including locks, sashes, balances, and other operating components as quickly as possible.
 - Do not nail or use paint or weatherstrip to permanently shut windows.
2. Make an emergency escape plan that includes at least two possible paths from each room.
3. Install smoke detectors and test monthly.
4. Close and lock windows and doors to discourage intruders.

Safety

WARNING: Falling through a window, door or screen can cause serious bodily injury or death.

1. Exercise extreme care when maintaining or cleaning doors and windows, especially when using a ladder or scaffolding, or when children are present.
2. Do not lean on windows, doors or door screens. They are not strong enough to prevent adults or children from falling through.
3. Do not allow unattended children to play near open windows and doors.
4. Position children's beds and furniture away from windows

WARNING: Mishandling glass can lead to serious bodily injury or death.

1. Follow all installation instructions when unpacking, installing, or repairing glass.
2. Wear gloves when handling broken glass.

Ensure old products are safely removed and properly disposed of or recycled. Visit www.epa.gov/recycle for more information regarding recycling glass products.

For additional safety information, visit the Window Safety Task Force of the National Safety Council at www.nsc.org and consult AAMA regulations and safety information, local building codes and rules, and local fire and police department safety information.



Please note: Homes and condominiums built before 1978 may have lead-based paint which can pose serious health hazards during removal. Information and instruction regarding proper management of lead paint is available at www.epa.gov/lead.

10 Things To Know About Condensation

Condensation is evidence of too much moisture in the air. When moist, warm air meets a surface temperature lower than the dew point (when the air can't hold its moisture any longer), condensation forms.

Condensation can appear in many forms. A foggy mirror after a hot shower, a glass of iced tea "sweating" in the summer, and your breath visible on a cold day are all types of condensation. Water that forms on the interior or exterior of the glass in your home is condensation too.

The moisture on the outside of glass doors is exterior condensation, or dew. It's the same water buildup you might find on grass in the morning. How often you're likely to experience it depends on the season (usually spring and fall) and where you live.

Exterior condensation is completely natural. Your glass doors aren't malfunctioning; they're actually showing you how energy efficient they are by reducing the flow of heat to the outdoors.

On the other hand, interior condensation could be a warning sign of excessive humidity. Water and ice on the inside panes of glass doors may be an indication of excessive indoor humidity, or moisture, in your home.

Excessive humidity is not a good thing. If excessive humidity is creating interior condensation on your glass doors, it may be causing other problems in your home like blistering paint, damp spots on the ceiling, and mold or mildew.

Control indoor humidity by reducing moisture sources. Turning off the humidifier and not air-drying clothes indoors can help to control indoor humidity. So can things like fixing plumbing leaks or drainage issues and, if you have a forced-air furnace, making sure your home is well ventilated by installing a fresh air intake.

Interior condensation is most common in the winter. Because of the extremes between outdoor and indoor temperatures, condensation is more likely to occur in the winter when the air outside is cold.

Raising the temperature inside your home can help control condensation. Increasing the air temperature inside your home and directing warm-air ducts towards windows can help reduce the conditions that cause condensation.



Increasing ventilation can also help. Running kitchen and bathroom exhaust fans longer and more frequently, opening the windows for a short time each day (especially after activities like showering, laundry and cooking), and making sure blinds and drapes are open so that the flow of warm air to the glass isn't restricted can also aid in minimizing condensation.

Warranty Note

It is imperative that all customers follow the care and maintenance instructions identified in this guide. Implementing and following these procedures will ensure your Moving Glass Wall System will provide you with great customer satisfaction and optimal performance. **It is important to note that failure to follow these instructions will void the Milgard express limited warranties.**

For a copy of our express ,limited warranties please visit our website at: www.milgard.com/warranty

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