



MAINTENANCE GUIDELINES

General Care And Maintenance

THE BEST WAY TO MAINTAIN ALL UNITS IN OPTIMAL CONDITION IS TO PERFORM REGULAR INSPECTIONS, CLEANING AND MAINTENANCE PROCEDURES.

CAOBA DOORS GENERAL CARE AND MAINTENANCE GUIDELINES

This document provides a general overview of the most important considerations and actions to take to maintain all Caoba Doors, Windows and General Millwork. These actions will help keep your doors and windows looking beautiful and operating properly for many years; keeping evidence that these actions are being performed will keep the factory warranty valid for the maximum period stipulated in Caoba's Limited Warranty.



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Caoba Doors

1. IMPORTANT GENERAL CONSIDERATIONS

- Cleaning schedule must start at the moment units are unpacked and installed.
- Wear necessary safety gear and follow safety measures during the maintenance procedures.
- Cleaning frequency may vary depending on the intensity of exposure to weather and elements.
- For cleaning, do not use hard materials like metal scrapers, knives, steel wool, sand paper or any other material that might damage, scratch, dent the surface, or any material that might pierce the surfaces.
- Do not use harsh and corrosive cleaning chemicals on finished and lubricated surfaces.
- Do not use silicone lubricants on complex mechanisms and plastic parts or covers. Always remember to clean off the excess lubricant applied.
- Do not use powder detergents when cleaning the units.
- Do not use a pressure washer.
- For all products used, follow all manufacturer's instructions and safety recommendations.
- If you have any questions, contact us at info@caobadoors.com, or visit our website, www.caobadoors.com.

2. FINISH MAINTENANCE GUIDELINES

2.1. Cleaning Surfaces

Cleaning schedule on finished wood surfaces must start at the moment units are unpacked and installed. Frequency will depend directly on the environment in which the doors, windows and millwork in general are to be installed. The main goal is to keep the surfaces clean and free of dust, chemical residues and mineral deposits of any kind.

2.1.1. Exterior Finished Wood Surfaces

Cleaning surfaces is the first step to keep all finished wood surfaces looking great over the years. Two types of cleaning are suggested for wood surfaces: light and deep cleaning.

LIGHT CLEAN: to perform a light clean on exterior surfaces, take a soft clean lint-free cotton or microfiber cloth, dampen in clean water and use it to clean the finished surfaces. Rinse the cloth as often as possible in clean water to remove any dust, sand, salt or mineral particles from it that might scratch the surface.

Alternatively, rinse the exterior surfaces thoroughly with enough clean water to remove any dust, salt and minerals accumulation off the surface. Do not use a pressure water washer directly over the finished surfaces. This will void the warranty.

DEEP CLEAN: to perform a deep clean on exterior surfaces, prepare a solution of neutral liquid soap (scentless, colorless, liquid neutral soap) with warm water, with just enough soap to be able to produce a light consistency foam. Use this solution over the finished surfaces to remove mineral, residues and other deposits off the finished surfaces; a clean microfiber cloth or other similar type of rag/sponge may be used to clean the finished surfaces. Rinse the cloth/rag/sponge as often as possible, to remove any hard particles from it that might scratch the surface. **DO NOT LEAVE ANY SOAP RESIDUES ON THE SURFACES TO DRY UNDER DIRECT SUN LIGHT.**

A MAINTENANCE SOLUTION (which may be purchased from Caoba Doors, please contact info@caobadoors.com) must be applied over doors, windows and general millwork with water-based finish once a year after a cleaning process. To apply the maintenance solution, use a microfiber cloth. Simply moisten a clean dry microfiber cloth and apply over the finished surfaces; work the product over in a circular motion, or following the wood grain, and let it dry.

Do not apply the maintenance solution on rainy days, under direct sun exposure or over hot surfaces. A temporary increase in the sheen level may be apparent over recently treated surfaces. This sheen may return to the previous level in a short period of time.

2.1.2. Interior Finished Wood Surfaces

All interior wood stain finished surfaces must be cleaned as often as needed, and could be included in a regular house cleaning routine. To this end, use a clean soft lint free cloth or microfiber cotton dampened in clean water to remove any dust off the surfaces. The main goal is to keep surfaces clean and beautiful.

A maintenance solution may also be applied to the interior wood finish surfaces every 2 years after a cleaning procedure has been performed.

2.1.3. Important Notes And Recommendations

- Do not use silicone or citrus based cleaners over water based finishes.
- Do not use any harsh chemicals to clean the finished surfaces.
- While using a soft cloth to clean the units, rinse the cloth in clean water as frequently as possible to prevent, accumulated dirt and hard particles from scratching the surface.
- Do not scour. Treat your windows and doors like a piece of fine furniture.
- Do not use a pressure water washer directly over wood surfaces. The use of pressure washers directly over the doors and windows may cause dents, damaging the wood and/or finish, voiding the warranty.
- Cleaning process must be performed on clear (stain) and opaque finished wood surfaces alike.

2.2. Maintenance Solution Application

To ensure the protection of the wood, the top coat film integrity is very important to maintain clear/stain coats, as well as opaque/solid paint colors. Film gauge may wear down if exposed to weather (directly or indirectly) and other factors such as dust, wind, sea breeze, pollution, regular use and direct sun.

Periodically, in addition to the cleaning and refreshing processes, a finish maintenance solution should be applied over all wood finished surfaces to restore the integrity of the film. (To purchase Caoba Maintenance Solution, please contact info@caobadoors.com)

2.2.1. Stain/Clear Finished Wood Surfaces

The maintenance solution must be applied directly after a deep cleaning process has been performed, and surfaces are clean, dry and cool to the touch. To apply the maintenance solution, the following basic supplies are needed:

- Paper (or other suitable material) to protect surfaces around finished wood

- Painter's tape or similar adhesive tape
- Special (gray) cleaning fibers*
- Water based Caoba Maintenance Solution* (code for this product may vary depending on sheen)
- Synthetic fine bristle brush*

*Supplies may be purchased from Caoba Doors

Follow these steps to apply the maintenance solution:

- Cover any glass, metal and any other surfaces to protect them during the maintenance solution application.
- Using the special (gray) cleaning fiber, softly wipe the surface, following the wood grain direction, to prepare the surface.
- Mix/stir the finish maintenance solution thoroughly before and during use.
- Use a clean fine bristle brush to apply the finish maintenance solution. Apply it over the clean dry surfaces, making single long strokes following the wood grain. Leave an even coat with a smooth surface.
- Let the applied maintenance solution dry for 1 hour and evaluate the appearance; if necessary, apply a second coat. Let final coat dry for at least 4 hours.
- Make sure the maintenance solution applied is dry before closing the windows/doors or before contact with any other hard surface.

2.2.2. Opaque (Solid Color) Finished Wood Surfaces

The maintenance material must be applied directly after a deep cleaning process has been performed, and surfaces are clean, dry and cool to the touch. To apply the maintenance solution, the following basic supplies needed are:

- Paper (or other suitable material) to protect surfaces around finished wood
- Painter's tape or similar adhesive tape
- Special (gray) cleaning fibers*
- Water based Caoba Maintenance Solution* (code for this product may vary depending on color)
- Synthetic fine bristle brush*

*Supplies may be purchased from Caoba Doors

For opaque finishes the maintenance solution is clear, but depending on the case, it could be slightly tinted to match the finish to maintain and give it a hue similar to the finish color. Follow these steps to apply the maintenance solution:

- Deep clean the surfaces as described above. Cover any glass, metal and any other surfaces to protect them during the maintenance solution application.
- Using the special (gray) cleaning fiber softly wipe the surface, following the wood grain direction to prepare the surface.
- Mix/stir the Clear Top Coat maintenance solution thoroughly before and during use.
- Use a clean fine bristle brush to apply the maintenance solution. Apply it over the clean dry surfaces, making single long strokes following the wood grain. Leave an even coat with a smooth surface.
- Let maintenance solution dry for 2 hours and a second coat may be applied if needed. Let final coat dry for at least 6 hours.

Make sure the maintenance solution applied is dry before closing the windows/doors or before contact with any other hard surface. Note that for tinted maintenance solution, coats must be as even as possible to prevent differences in the color tone.

2.2.3. Important Notes And Recommendations

- Do not use harsh abrasive fibers over the finished surfaces.
- Do not apply maintenance solution with temperature lower than 15oC (59oF).
- Do not apply maintenance solution under direct sunlight or over hot/warm surfaces. This will make the solution dry too quickly, not giving the maintenance film enough time to extend evenly over the treated surfaces, leaving an uneven look and a weak protection over some areas.
- To assure the protection of the wood, the top coat film integrity is very important.
- Maintenance solution can be stored for up to 12 months, from the moment received. Optimal storage conditions include, storing the solution out of direct sunlight, in a climate controlled, cool and dry environment, with container lid perfectly closed.

- Directly after finishing the application of the maintenance solution, soak the used brush in clean water and leave it submerged for several minutes. Wash the brush using regular soap/detergent. Rinse thoroughly.
- The product code of the appropriate maintenance solution will depend on the sheen of the original factory finish applied, ask your Caoba Doors representative for assistance or contact Caoba directly at info@caobadoors.com.
- Look for any seal damages between walls and windows and doors jambs. Repair any broken seal to avoid any water infiltration and potential water damage in the future, using proper sealing/caulking material.

2.3. Maintenance Schedule – Suggested Program

Depending on the finish (clear or opaque) and the environmental exposure, frequency of the various maintenance processes performed, parts of the general finish maintenance program may vary. The following chart shows some suggestions/parameters to help establish periodicity in the maintenance program. For this document two major areas are defined:

- Normal Area: areas where sun exposure is mild and no harsh environment is present.
- Coastal Area: areas within 1 mile from a sea front, in the presence of marine environment, heavy sun exposure, sea breeze and / or other harsh agents.

Interior finishes are considered to be surfaces unexposed or with limited exposure to UV rays and mostly isolated from exterior weather in general, usually in cool, closed environments. Interior face of exterior doors and windows may be considered as interior surfaces. All cleaning for interior finishes should start 6 months from installation date for stain / clear finishes, and 12 months from installation for opaque / solid color finishes.

Interior Finishes	Cleaning	Frequency
Stain / Clear	Light C.	Every year
	Deep C.	Every three years
	Refresh	Every year
Opaque / Solid Color	Light C.	Every two years
	Deep C.	Every four years
	Refresh	Every year

Interior Finishes – Cleaning Program

Exterior Finishes Stain / Clear	Cleaning Type	Frequency
Normal Area	Light C.	Every two months
	Deep C.	Every six months
	Refresh	Every year
Coastal Area	Light C.	Every month
	Deep C.	Every three months
	Refresh	Every eight months

Exterior Finishes – Stain – Cleaning Program

Exterior Finishes Opaque / Solid Color	Cleaning Type	Frequency
Normal Area	Light C.	Every three months
	Deep C.	Every six months
	Refresh	Every year
Coastal Area	Light C.	Every six weeks
	Deep C.	Every three months
	Refresh	Every year

Exterior Finishes – Opaque – Cleaning Program

Frequency for the cleaning process will depend entirely of the location of the doors and windows and exposure to weather elements. Frequency may have to be increased, if necessary, to maintain the surfaces clean.

Perform regular inspections promptly after every cleaning procedure; this will help to establish if the maintenance procedure applied meet the expected results. If you deem excessive exposure, you should adjust to a more frequent maintenance schedule.

Interior Finishes	Maintenance Frequency
Stain / Clear	Every three years
Opaque / Solid Color	Every four years

Interior Finishes – Maintenance Program

Exterior Finishes	Maintenance	
	Area	Frequency
Stain / Clear	Normal	Every two years
	Coastal	Every eighteen months
Opaque / Solid Color	Normal	Every five years
	Coastal	Every three years

Exterior Finishes – Maintenance Program

2.4. Water Based Finish Restoration Process

In case stain finished wood surfaces show damage in the integrity of the top coat film (or deeper into the finish) a restoration process should be performed, using the Caoba Restoration Solution, a thicker, more resistant product to restore the top coat. Before starting this process, carry out an overall inspection of the surface to be restored and look for any physical damage on wood. If there is any sign of minor damage (e.g. rupture, deep scratch, etc.), repair the surface using a suitable commercially available wood filler; note that more serious damage might call for the replacement of the door, window or millwork piece. Do not use wood putty on visible areas; instead use a burn filler stick following the manufacturer's instructions and recommendations.

After repairing any minor damages (if necessary), follow the corresponding procedure below to restore the finish. For both, stain and opaque finishes, notice the following considerations:

- The finish process must be performed in a clean, dust free, cool environment. If necessary make the arrangements to reproduce these conditions as much as possible around the finished areas to restore.
- Use appropriate protective and safety gear during the whole process.
- Read this section thoroughly before starting the process.
- Do not apply the finishing products over hot surfaces or directly under the sunlight.
- Test the whole process, on a small section or a piece of wood of the same species, to become familiar with the products, the staining and finishing techniques.
- Do not let the units get wet before the restoration process is complete, and the top coat has completely dried.

2.4.1. Restoration Process – Clear / Stain

Basic supplies needed are:

- Paper (or other suitable material) to protect surfaces around finished wood
- Painter's tape or similar adhesive tape
- Fine grit sandpapers; could go between 220 and 320 grit. Fine sanding sponges or other similar fine sanding tool may also be used
- Water based Caoba Restoration Solution* (code for this product may vary depending on sheen)
- Synthetic fine bristle brush*

*Supplies may be purchased from Caoba Doors

To restore clear finishes on wood, follow the steps below:

- a) Use paper and painter's tape, or any other appropriate adhesive tape, to protect the surrounding surfaces of the area to be worked on; this includes, but not limited to: walls, glass, floors, hardware, etc.
- b) The finish restoration process must be performed over bare wood. This means removing old / damaged finish product layers from the surface. This may be done using sand paper to remove the old finishing coat. In case only the top coat is heavily damaged, but the color is even (no matter if it has faded or not), it may not be necessary to strip the finish off. In this particular case, simply remove the loose damaged top coat by sanding the surface with 180-grit or similar sand paper. This will prepare the surface to be restored.
- c) Lightly sand the surface again using a 220-grit or similar sand paper, to further remove loose chips and deteriorated finish layers and obtain a smooth even surface.
- d) If you sand through to the bare wood, or if color fading is evidenced due to lack of maintenance, a fresh stain should be applied to color the wood. To that end, use two lint free rags; one for applying the stain and another to remove excess stain off the surface. Thoroughly shake/mix/stir the staining solution and moisten the first rag with it (squeeze excess out). Apply a thin, even layer over the surface and immediately use the dry rag to thoroughly wipe off excess stain. Work over areas smaller than 1 square foot at a time and try to keep a wet edge during the staining process. Do not apply heavy amounts of stain and do not let bare wood absorb too much stain or color will turn too dark.

- e) Check the general color appearance of the entire stained surface; a second thinner layer of lighter stain may be applied using the same technique to even up and/or adjust the color. To formulate a lighter version of the stain, take some original stain solution and add to it up to 40% of demineralized or bottled drinking water. Let the original stain dry for at least 1 hour before applying the diluted stain (if necessary). In case some dark spots are visible, sand very lightly using a 500 grit or finer sand paper to remove excess stain; be careful not to sand through the adjacent stained surface. Let the stained surface dry for at least 1 hour.
- f) Once dry, clean off the surface from dust or any other particles or fibers. Apply the restoration solution (code for this product may vary depending on sheen to apply) using a fine bristle brush or spray gun. Make sure to leave a smooth surface. Let it dry for at least 2 hours.
- g) Lightly sand the finished surface using a 400 or finer grit sand paper to smoothen out the surface and eliminate any bumps and lumps that might show after the first coat. Be careful not to sand through the finish product layer. Dust off the area and leave a clean smooth surface ready to receive a next coat.
- h) Apply a second coat of restoration solution directly over the sanded clean surface; try to leave a smooth even coat. Let it dry for at least 2 hours. If the finished area is too exposed to sunlight, harsh or coastal environment, apply one additional coat following the same process.
- i) Let the finished restored surfaces dry for at least 4 hours after the application of the last coat. Make sure the applied top coat is totally dry before operating the units, or before contact with any other hard surface.

2.4.2. Restoration Process – Opaque / Solid Colors

Basic supplies needed are:

- Paper (or other suitable material) to protect surfaces around finished wood
- Painter's tape or similar adhesive tape
- Fine grit sandpaper between 220 and 320 grit. Fine sanding sponges or other similar fine sanding tool may also be used
- Water based Caoba Colored Restoration Solution* to match records or by request
- Synthetic fine bristle brush*

*Supplies may be purchased from Caoba Doors

To restore solid color finish on wood, follow the steps below:

- a) Use paper and painter's tape, or any other appropriate adhesive tape, to protect the surrounding surfaces of the area to be worked on; this includes, but not limited to: walls, glass, floors, hardware, etc.
- b) Remove all worn down and damaged finish layers using 120-grit or similar sand paper. Special attention should be paid over most damaged areas until good looking wood gets exposed.
- c) After the whole surface has been sanded, complete the preparation process by lightly sanding again using a 220-grit or similar sand paper.
- d) Repair and fill all damages shown on the wood surface, like wholes, cracks, gaps, etc., using appropriate filler material. Let it dry following manufacturer's instructions.
- e) Apply Restoration Solution using a fine bristle brush or spray gun. Make sure to leave a smooth surface. Let it dry for 2 to 4 hours. Then, apply a second even coat in the same way as before, no additional sanding is required.
- f) Let the finished restored surfaces dry for at least 6 hours.

2.4.3. Important Notes and Recommendations

- Use appropriate protective gear during the whole process.
- Read the procedures thoroughly before any action is taken.
- Test the whole process on a small section or a piece of wood of the same species, to become familiar with the products, the staining and finishing techniques.
- Make sure the applied top coat is totally dry before operating the units, or before contact with any other hard surface.
- Do not apply the finishing products over hot surfaces or directly under the sunlight.
- Do not let the units get wet before the restoration process is complete, and the top coat has completely dried.

2.5. Aluminum Clad Finish Maintenance

To this end any property within (1) miles of a sea front is also defined as being in a 'coastal

environment' and is therefore under the same kind of atmosphere and harsh environment as those directly on sea fronts. Those properties are situated in atmospheres with much higher than average organic chemical contents- higher levels of alkaline, moisture, salt and corrosive deposits from the sea. Additionally, properties in those locations are constantly exposed to higher than normal wind speeds. All of the above conditions require additional and more frequent maintenance procedures to safeguard the integrity of your product.

In order to ensure durability in the face of harsher natural chemicals of the coastal environment, special coatings are applied to the aluminum frame to protect it against corrosion and damage from the external environment.

No paint coating can be 100% maintenance free – however our aluminum coat lifespan can be extended considerably by following some basic maintenance guidelines.

In areas with the influence of salt water (coastal residences or adjacent to a busy, gritted road) or nearby to other sources of heavy emissions (motorways, industrial areas) it is recommended that coated aluminum should be cleaned at minimum every three months. In less harsh environments cleaning every six months is sufficient.

Wash coated aluminum surfaces with warm water mixed with a non-alkaline liquid detergent. This can be a specific aluminum cleaning detergent / soap or a normal household detergent / soap with a PH value of less than 7 (or a general PH neutral soap based detergent).

- Do not use pressure washing, brick wash, razor blades or other inappropriate cleaners or chemicals.
- Use a non-abrasive cloth or sponge with plenty of water. Wash the coated aluminum surface to remove grime, salt and any deposits. Wash out all ridges, grooves and joints, where salt and dirt can collect – which will also prevent corrosion from occurring in the future.
- Remove any build-up of salt deposits, bird droppings, mold and other contaminants that can interact with surface coatings.
- Salt-blown areas that are not washed by the rain need particular attention
- Rinse thoroughly with clean water and dry using a soft cloth or chamois leather.

3. CLEANING GLASS

All glass surfaces must be cleaned during construction activities and as a part of a general maintenance program in order to keep visual clarity and aesthetic appearance. Since glass products can be permanently damaged if improperly cleaned, glass producers and fabricators recommend strict compliance with the following procedures to properly clean glass surfaces. As dirt and residues appear, glass surfaces should be thoroughly cleaned. During construction or remodeling jobs, concrete or mortar on glass can be especially damaging and should be washed off as soon as possible. Cleaning process must begin at the top of the building/construction and move down to the lower levels to avoid leaving residues and cleaning solutions on glass at the lower levels.

Cleaning processes during construction/remodeling activities should begin with soaking the glass surfaces with clean water and soap solution to loosen dirt or debris. Apply a mild, non-abrasive commercial window washing solution, following the manufacturer's instructions and safety recommendations. Immediately following the application of the cleaning solution, a squeegee should be used to remove all of the cleaning solution from the glass surface.

Make sure no metal parts of the cleaning equipment touch the glass surface and that no abrasive particles are caught between the glass and the cleaning equipment. All water and cleaning solution residue should be dried from window gaskets, sealants, frames and other surfaces to avoid potential deterioration of these materials as a result of the glass cleaning process.

A large percentage of damaged glass results from non-glass related trade activities performed in proximity of glass surfaces. This will include painters, ironworkers, landscapers, carpenters and others who are part of the construction/remodeling processes, who may inadvertently lean tools against the glass, strike glass with other materials, splash materials over it and/or clean it incorrectly, etc., any of which can permanently damage it.

3.1. Difficult Stains On Glass

When paint, mortar or other construction materials cannot be removed with normal cleaning procedures, the use of a new 1 inch razor blade may be needed; this should be used only over non-coated glass surfaces. Razor blades should only be used on small spots. The scraping action should be done in one direction only and at a slanted angle. Do not scrape in a back and forth motion, this could trap particles under the blade causing scratches on the glass. **(WARNING: these procedures come with the risk of permanently damaging the glass surface if**

not performed correctly and must be done under the home owner or administrator’s responsibility.)

Quick-Reference Guide to Cleaning Architectural Glass Products*

<i>The following are the TO DO actions</i>	<i>The following are the “NOT” TO DO actions</i>
<ul style="list-style-type: none"> ○ Clean glass when dirt and residue appear. ○ Start cleaning at the top of the building and continue to lower levels. ○ Soak the glass surface with a clean water and soap solution to loosen dirt and debris. ○ Use a mild, non-abrasive commercial window cleaning solution. ○ Use a squeegee to remove all of the cleaning solution. ○ Dry all cleaning solution from window gaskets, sealants and frames. ○ Caution other personnel onsite against other materials coming in contact with the glass. ○ Watch for and prevent conditions that can damage the glass. 	<ul style="list-style-type: none"> ○ DO NOT use scrapers of any size or type to clean glass. ○ DO NOT allow dirt and residue to remain on glass for an extended period of time. ○ DO NOT allow water or cleaning residues to remain on glass or adjacent materials. ○ DO NOT begin cleaning without rinsing excessive dirt and debris off the glass surface. ○ DO NOT use abrasive cleaning solutions or materials. ○ DO NOT allow metal parts of cleaning equipment to contact the glass. ○ DO NOT trap abrasive particles between the cleaning materials and the glass surface. ○ DO NOT allow other personnel on site lean tools or materials against the glass surface. ○ DO NOT allow splashed materials dry on the glass surface.

*Partial list, extracted from: Cardinal IG Company. (2016). Technical Service Bulletin: Bulletin #IG12-01/16 Glass Cleaning Recommendations. Retrieved October 13, 2017, from http://www.cardinalcorp.com/source/pdf/tsb/ig/IG12_01-2016.pdf

4. WEATHERSTRIP MAINTENANCE

From the moment units get installed, **CLEAN AND INSPECT EVERY SIX MONTHS ALL WEATHERSTRIPPING** around window sashes / exterior door slabs. Look for any signs of deterioration, mildew stains, damage, cracks, discoloration or any change on the weatherstripping’s appearance.

4.1. Weatherstrip Cleaning

To clean, use a soft lint free cotton or microfiber cloth dampened in fresh water. Remove all dirt, dust, salt or any other mineral deposits around weatherstripping. A mild scent free liquid

soap and water solution may be used; remember to rinse down after cleaning. Dry the unit thoroughly.

4.2. Weatherstrip Replacement

In case anything irregular is found during the inspection, and weatherstrip must be replaced, report immediately to your Caoba Doors representative requesting replacement weatherstripping for the unit. Typically, weatherstripping in our units have a barb that is inserted into a groove/kerf. If the weatherstrip goes into the jamb, there must be overlapping segments on the corners; use independent segments for each jamb leg and head sections. To weatherstrip sashes, the ends of each weatherstrip piece should be cut in a 45 degree angle.

To replace the necessary pieces, remove the existing weatherstripping using a pair of needle-nose pliers to pull out the strip from its ends (at each corner of the jamb/sash/slab). If pulled out in one piece, the old weatherstrip could be used as a template to cut the replacement or measure the length and cut the necessary piece to fit. Make sure the groove/kerf is clear of any old weatherstripping that may obstruct the installation of the new piece. Take the new cut piece and align it with the groove/kerf all along the unit. Push the new weatherstrip piece inside the groove/kerf making sure the barb is fully inserted.

It is important to have the correct weatherstripping profile intended for the specific door or window. Using wrong weatherstripping could result in leaks, inappropriate seal, or even damages to the unit. In case units are over exposed to sea breeze, dust, sun exposure, inspections should be performed more frequently (every three months).

5. HARDWARE MAINTENANCE

5.1. General Operation

All hardware must be fully OPERATED AT LEAST ONCE EVERY MONTH. This regular operation will help keep operational hardware in working smoothly, and will act also as regular inspection to detect areas that require immediate attention, such as cleaning/lubrication in advance.

5.2. Important Considerations for Hardware

Maintenance

- Taking into account the various environments our units may be exposed to, periodical cleaning of the hardware is necessary.
- Dust, salt and other particles may cause units (windows, doors, etc.) to be harder to operate and may cause premature corrosion and even hardware malfunction.
- Periodical inspection of hardware is essential in a good maintenance program.
- Good cleaning and lubrication procedures restore the smooth operation of the hardware.
- Among other benefits, proper lubrication forms a protective barrier that helps to delay the natural corrosive process in metals.
- Although parts made of Stainless-steel perform considerably better than plated steels, they are still susceptible to corrosion unless maintained / protected periodically.
- All hardware needs to be submitted to a maintenance process (cleaning and lubrication).

5.3. General Actions To Take for Hardware Maintenance

- Hardware exposed to exterior / harsh environments must be kept as clean as possible. Frequency of the cleaning depends strictly on the environment. The main goal is to keep hardware free of dust, dirt, salt, grime build up, etc. To clean any hardware use a clean cloth dampened in fresh water or a liquid soap and water solution.
- To clean soiled hardware surfaces, wipe off with a clean soft cloth dampened in a mild soap and warm water solution; then rinse it off by wiping the surface with a clean moist rag.
- Use light mineral oil or similar lubricant on hinges and other hardware with articulated joints.
- To lubricate hardware parts with bearings, gear drives and channels, use lithium grease as lubricant; this product is the best suited due to its waterproofness. Petroleum jelly can be use instead in emergency cases if a better suited lubricant is not available at the time of performing the hardware maintenance program, note however that it is not as durable as lithium grease.

- For track and bearings use a spatula or similar tool (not bare finger) to apply lithium grease or similar lubricant on the track. Make sure wheels run over the lubricant and distributed evenly on the track. Apply extra lubricant around bearings.
- If hardware is exposed to severe environments apply a corrosion preventive product over the surfaces; product may be wiped on over the needed surfaces.

5.4. Lubricating Hardware

Clean all hardware from dirt, grime build up and any other substances/particles every three months. Clean operating hardware using a soft cotton or microfiber cloth dampened in clean water; dry thoroughly when done. Do not use vinegar, citrus or any other harsh chemical cleaners.

After cleaning and drying operating hardware, apply lubrication to all window and door hardware. For all gear drives (such as operators and locks) apply a small amount of lithium grease.

For sliding or rotating joints (e.g. rollers, pivots, brackets, hinges and chains) products like WD40 or CD2 may be applied. Also light oil (as 3-In-One) can be used in sliding or rotating joints. Do not use silicone based lubricants, or lubricants that contain resins or solvents.

Do not use silicone based lubricants; they may cause plastic parts to become brittle. Remove all excess lubricant (that includes all the lubricants described before) off the surfaces.

To lubricate hinges a high quality mineral oil may be used. Wipe off any excess oil to avoid dirtying hands or clothing when in contact with the hardware. Excess oil will eventually become grime when left in contact with dust etc.

To clean lockset mechanisms, a penetrating, non-corrosive or solvent type lubricant may be used to loosen up hard to operate components. Then good quality lithium grease or Teflon based lubricant may be used to protect and lubricate the interior surface.

For key cylinders, graphite dust or Teflon based lubricants may be used; this may also help to loosen up stuck or jammed cylinders. Do not use oil or silicone based lubricants in the cylinder.

Do not use petroleum based lubricants in the cylinder keyway. Silicone or oil based lubricants will collect dirt and mineral residues (like salt in coastal environments), and liquids may even freeze in the lock if weather is cold enough (this may vary on the type of products used).

5.5. Lubricating Folding Hardware (Centor or Similar)

Before any lubrication is applied, clean all exposed surfaces. Clean track and exposed surfaces using a soft cotton or microfiber cloth dampened in a neutral liquid soap and warm water solution; then wipe clean with a clean cloth and dry thoroughly.

Lubrication of the hardware must be done **EVERY THREE MONTHS**. To lubricate track, using a spatula or similar tool, apply a small amount of suitable lubricant to the inner lip of each side of the track (lithium grease, petroleum jelly [Vaseline] or similar lubricant may be used). Make sure that the wheels pass through the lubricant and that it is evenly distributed along the track.

A thin layer of a corrosion preventive product (such as CRC Marine 66, Innox or WD40) may be applied over the surface of the track; apply with a soft cloth dampened in the corrosion preventive product. For hangers, pivots and brackets, spray a corrosion preventive product lightly over the exposed surfaces and wipe lightly with a dry clean cotton or microfiber cloth. For hinges, apply a thin film of light machine oil or a corrosion preventive product. Be careful not to get any lubricating product on the timber, glass, clad or other surfaces, wipe off if necessary.

Dropbolts may be sprayed with a suitable lubricant (such as CRC Marine 66, Innox or WD40) on the pin inside the bolt and the lock cylinder. A tube attached to the nozzle will help to direct the spray where is needed. Use the access holes/slots on Centor products. Stainless steel parts also require cleaning and lubricating as part of a maintenance program.

5.6. Hinge Finish Care

Finishes on metal hinges, are produced to ensure they remain in great condition year after year. However, some finishes may deteriorate if exposed to corrosive vapors, coastal environment, salt spray or high humidity. Brass finishes are susceptible to tarnishing if in contact with moisture or wet paint, particularly in exterior locations.

A great way to counter this exposure is to coat all external brass finishes with a non-abrasive furniture or car wax immediately after installation. As part of the cleaning routine wipe with a soft or microfiber cloth, occasional polishing with a nonabrasive furniture or car wax (frequency of this polishing will depend on the exposure of the hardware and the environmental conditions). Not scratching the protective finish on brass fittings will also help prevent tarnishing.

PVD, lacquered or clear-coated finishes can simply be cleaned by wiping with a soft, clean, damp (not wet) microfiber cloth. A mild liquid neutral soap solution may be used if the surface is

too dirty.

Oil rubbed bronze finishes may be wiped with a small amount of clear mineral oil on a microfiber cloth. Wipe off any excess to avoid dirtying hands or clothing and grime buildup.

A mild liquid neutral soap solution may be used if the surface is too dirty; test this cleaning method on a small spot to make sure it does not damage a particular finish. After cleaning, the surface may be rubbed with a wax paste, leaving a protective coat on the finished surface.

Bright, satin and chromed finishes may be cleaned with a soft, clean, damp microfiber cloth. A high grade chrome polish product may be used (following the product manufacturer's instructions) to clean and restore the original sheen.

5.7. Multi-Point Lock (For Doors and Windows)

Cleaning multi-point surfaces must be done at least ONCE EVERY THREE MONTHS. Clean surfaces using a soft cotton or microfiber cloth dampened in fresh clean water.

Lubricate the interior of the lock ONCE A YEAR after cleaning exterior. To lubricate multi-point locks, use Teflon based dry film lubricant or dry PTFE spray. Do not use silicone or petroleum based lubricants or those containing solvents or resins.

5.8. Exterior Shutter and Barn Door Hardware

Clean all exposed surfaces on this type of hardware as often as necessary. Clean all surfaces using a soft cotton or microfiber cloth, dampened in clean water. Do not lubricate, unless any difficulty in the operation of the hardware is detected. To lubricate if necessary, use a light film of lithium grease, removing any excess after application.

5.9. Window/Door Sills and Tracks

Some windows and doors may have sills or tracks with weep holes and draining systems. Inspect draining systems on sills/tracks at least ONCE EVERY SIX MONTHS. If necessary, clean the draining channels on the sill; make sure water on the draining system drains freely. Remember to keep the draining channels and weep holes free of obstructions.

Certain tracks may be equipped with an open cell foam strip which should be inspected at this time. If cleaning is necessary, pull strip out from one end, pulling softly as close from the

ground as possible to not damage or break the strip. Do not pull in one go, pull and advance in short extensions. Clean with a cloth damp with mild soap and water. Dry and insert back into position. The strip should be replaced if it is no longer in good condition (available for purchase from Caoba Doors, please contact info@caobadoors.com).

5.10. Important Notes and Recommendations for Hardware Maintenance

- Do not use harsh solvents, lacquer thinners, caustic soaps, abrasive cleaners or polishes on lacquered or clear finish coats; these could damage the coating eventually resulting in tarnishing.
- Test any cleaning technique on a small hidden area of the surface to make sure it does not damages the particular finish on the surfaces that are being cleaned.
- Hardware maintenance programs must be performed as often as possible to prevent premature deterioration of hardware. As a maintenance frequency guideline, take as reference a period of 6 months for “regular environments” and 3 months for “harsh environments” (marine, industrial or other harsh environments).
- Do not use vinegar, citrus, or chlorine based cleaners, as well as industrial strength or abrasive cleaners.
- Do not over lubricate hardware. Excessive lubrication may lead to functionality problems.
- Be careful during lubricant application due to possible unwanted staining on surfaces. Immediately wipe off any lubricant excess.
- If an area was originally lubricated with a specific lubricant, like grease, use only that product to re-lubricate the area. If the type of lubricant is going to be changed, make sure to thoroughly clean the surface to be re-lubricated; also, make sure that the selected substitute lubricant is compatible with the previous product and is the best suited for the purpose.
- Do not use silicone based lubricants were plastics are present; these may cause some

plastics to become brittle.

- Do not use resin oil.
- Locking mechanisms, lock strikers and/or other locking elements of multi-point hardware should not be painted over with low mechanical resistance paint.
- Silicon lubricant may be used moderately over some types of hardware (avoid using it over elements with complex mechanisms); a better and more effective option are dry Teflon based lubricants.
- All lubricant products have pros and cons; select the most appropriate product for each specific job considering manufacturer instructions, recommendations and warnings before using it. Always follow manufacturer's safety recommendations.

6. STAINLESS STEEL MAINTENANCE GUIDELINES

6.1. Important Considerations for Stainless Steel Maintenance

- This document does not apply to decorative hardware with polished finishes or selective polished patterns. Request additional information regarding (stainless steel) hardware maintenance with polished finishes.
- Stainless steel is protected from corrosion by a thin passive layer of chromium oxide film, which results from the combination of oxygen in the atmosphere and chromium on the stainless steel alloy. Any contamination of the surface by dirt or other materials may trap corrosive agents (like salt from the environment), reducing corrosion protection. A cleaning routine is necessary to maintain the integrity and appearance of the surface.
- Stainless steel surfaces can remain in great condition with frequent cleaning. Perform a frequent cleaning routine of the surfaces to keep them from corroding.

6.2. Stainless Steel Cleaning Options

Stainless steel can be easily cleaned using different methods and types of cleaners such as clean water, mild detergent, solvent cleaners, household cleaners or commercial cleaners.

- Clean Water: is the simplest way to clean stainless steel surfaces. Use a soft microfiber/cotton cloth with warm water; this can be mixed or not with a mild detergent.
- Solvent cleaners: organic solvents may be used to remove grease and oils (that have not yet oxidized or decomposed) from stainless steel surfaces. If solvents are chosen to clean, select one that does not contain chlorine (like acetone, methyl alcohol, or mineral spirits).
- Household cleaners: these could be (non-abrasive) detergents or abrasive cleaners. The abrasive products are more aggressive, as such take care not to scratch the surface.
- Commercial cleaners: Many available commercial cleaners are composed of phosphates, synthetic detergents, and alkalis; these are used to clean severely soiled or stained stainless steel surfaces. Used correctly (see cleaner's manufacturer instructions and safety recommendations), these cleaners can safely clean stainless steel surfaces.

6.3. Stainless Steel Cleaning Process

- Dust off all surfaces with a clean microfiber or cotton cloth.
- If water is used, wipe down all stainless steel surfaces with the chosen solution. If other cleaner was chosen, follow the manufacturer's instructions.
- All cleaning should be followed by rinsing with clean water, preferably hot. Dry all wet surfaces thoroughly using a dry microfiber or cotton cloth.

6.4. Important Recommendations for Stainless Steel Maintenance

- Ordinary carbon steel wool or steel brushes shouldn't be used as they may scratch and leave particles embedded on the surface which can lead to rusting.
- To prevent any scratches, avoid the use of abrasive cleaners unless absolutely necessary.
- Many cleaners may contain corrosive ingredients. Rinse off with water after using these cleaners.
- If solvent cleaners are chosen, select one that does not contain chlorine (like acetone,

methyl alcohol, or mineral spirits).

- Avoid wiping using oily or greasy rags.

7. SCREEN MESH CLEANING AND MAINTENANCE

7.1. Important Considerations

- Do not use pressured water washers to clean mesh. The excessive force will damage the mesh.
- If the screen is removable, it is suggested to remove the unit. In case the screen is removed, use some painter's tape or temporary label to identify the unit to which the screen belongs.
- If a vacuum cleaner is used, do not place the hose directly over the mesh. This could loosen and damage the screen.
- For cleaning in general, it is best to work from top to bottom.
- Do not beat the screen mesh with cloths, pallets or any other object to clean it.

7.2. Regular Mesh Cleaning

Remove dust off the screens at least once a week. A light dusting should be enough to keep screens looking neat and delay the appearance of built up dirt and grime. A vacuum cleaner may be used, with the correct attachment (dusting brush nozzle). Gently use the vacuum cleaner over the mesh to get dust off the surface.

A fine bristle brush may also be used to gently clean the mesh if a vacuum cleaner is not available. Cleaning may be done on both sides of the screen on dustier surfaces.

7.3. Maintenance Mesh Cleaning

Screen mesh may be washed if needed. Firstly, if the screen may be taken off the unit (door/window), remove it and rinse it with water. A neutral liquid soap and water mix may be used on the screen; the use of a soft bristle brush may be used to gently brake up and remove grime or dirt. Remove any soap cleaning solution residues off the mesh with the help of a



MAINTENANCE GUIDELINES

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dampened microfiber cloth. Make sure no excess moisture is left on the screen kerfs and corners; dry thoroughly.

Please confirm that you have read and accept the conditions stated on this document.

Signature

Name:

Date:

Caoba Doors