PRL Glass/Aluminum systems
14760 Don Julian rd.
City of industry, CA. 91746
Phone: 877-274-8800

Operation and Maintenance Manual

For

PRL's Bi-Folding accordion door

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Operation:

These instructions are generic to a 3 door wide opening. The same principles apply to other openings with more or, less door leaves.

We assume the door is in the closed and locked position

This is the handle on the swing door and is shown in neutral and or locked position. If the door is locked turn the thumb-turn (lower part) and you will feel and hear the dead latch, unlock. In this case it would be an anti-clockwise turn. Opposite door will turn opposite.

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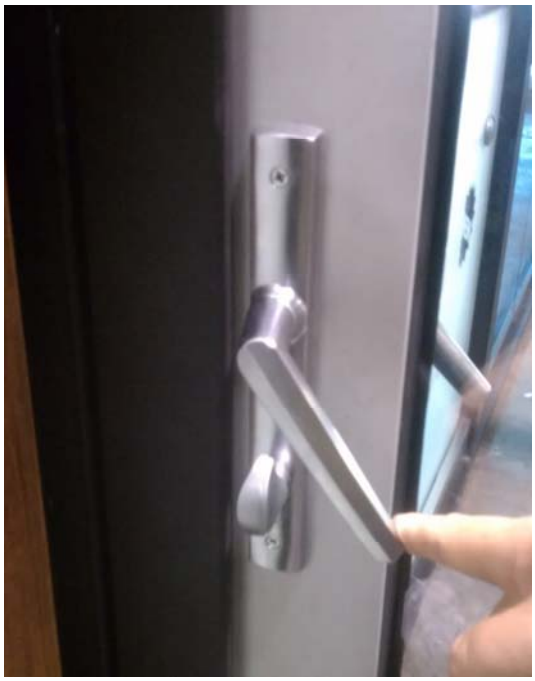
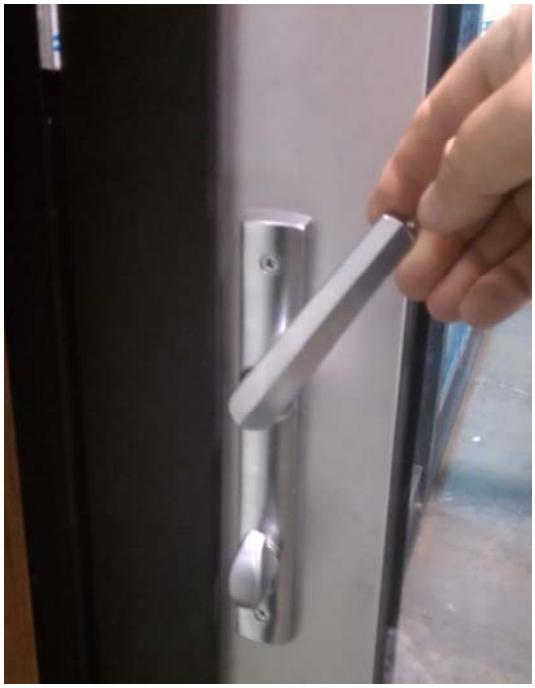


To open the door, after unlocking, push handle down and push door out.

To close the door, simply pull the door toward you with the handle in the neutral position.



To close the door tightly against the weather, pull the handle lightly toward you and turn handle up, as shown. You will feel and hear the dead bolts and shoot bolts engage.
To lock the door from intrusion you will turn the thumb-turn. In this case you will turn it clockwise, opposite hand will be opposite direction.

NOTE: you cannot lock the door from intrusion unless you have engaged the dead and shoot bolts as described above.

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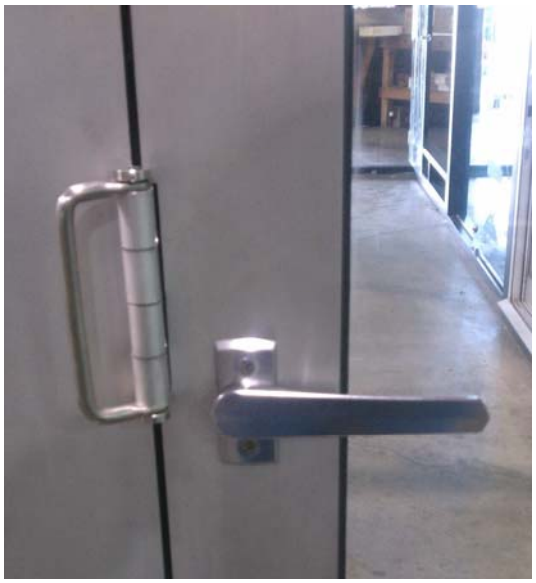
To operate folding leaves:
Shown is the lock handle and pull handle (left side).
The lock handle is shown in the locked position.



Unlocking the folding leaves is by turning the handle up and away from the door stile. Shown here it is turned to the right, opposite door will turn opposite. Once in this position you can push the stile away from you and the doors will start to fold. If your door has a swing door included, you must have unlocked the swing door. You will find that you get the best leverage to open the door by pushing the leaves to about 45 degrees open and then turning and pushing parallel to the track. Closing the folding leaves is the opposite from opening. Once into the near closed position you will pull the pull-handle lightly toward you and turn the locking handle down. This will engage the shoot bolts at the top and bottom.

WARNING:

Be cautious and do not allow others, especially children to be around the doors when opening or closing. Do not get fingers inside the door stiles when opening or closing. This could cause serious injury.
Be cautious when opening and closing doors as wind can catch the door the door and cause it to swing uncontrollably if you are not holding on tightly.

There is a minimum amount of maintenance required for the curtain wall provided on this project.
We have enclosed a copy of the A.A.M.A.'s care and handling of aluminum products for your information.

Refer to the glass manufactures instructions for care and cleaning of glass. Do not use harsh cleaners such as alkali's, thinners, or ammonia.

Recommended maintenance

Monthly

Clean all aluminum surfaces as described in the AAMA manual attached. The head and sill track should be swept clean and a light coating of silicone spray applied
All hinges should have a drop or two of a light oil applied so that it runs into the hinge pin and lubricates. Suitable oil for this application is "3 in 1" oil. Check all exterior weep holes are free of debris and insect infestation. Check that there are no signs of water infiltration or leaks.
Check corners of gaskets for shrinkage and potential water leaks. Caulk joint closed if open joints are found.

BI-annual

Repeat monthly maintenance procedures
Clean all painted surfaces as described in the AAMA attachment and apply car wax as you would for your vehicle.

Annually

Repeat all BI-annual maintenance.
All natural, synthetic rubbers and pile weather-strip will exhibit permanent set when held under compression. We have used only the best E.P.D.M./silicone rubbers and polyamide for your weather-stripping.
It may be necessary to change these gaskets annually if your doors are to continue to perform at their highest level.
All synthetic rubber caulking will degrade over time. You should inspect all caulked joints and if they show signs of hardening, flaking or if moisture is present, have a professional glazier remove and reapply as necessary.

Adjustment

Adjustment can be performed as shown in the installation instructions. We recommend that the adjustment be performed by able bodied glazing contractors who are familiar with this type of door.
WARNING: Doors are extremely heavy and can cause severe damage and even fatal injury if not installed or adjusted properly.

Replacement and spare parts

Aluminum extrusions are of proprietary design, manufactured by P R L aluminum. Replacement parts can only be obtained by contacting P R L aluminum.

Glazing gaskets are a proprietary design of P R L and supplied by Tremco of Ashland Ohio. Replacement parts can only be obtained by contacting P R L aluminum.

Thermal separator is a proprietary design of P R L and supplied by Ensinger, New York. Replacement parts can only be obtained by contacting P R L aluminum as they are integral to the extruded aluminum.

Hardware is a combination of commercially available and proprietary design specifically customized for P.R L. some of the hardware is supplied by Assa Abloy from Reno, Nevada; other parts are manufactured in house by P R L. Replacement parts can only be obtained by contacting P R L aluminum.

Anti-walk blocks and setting blocks are a commodity item and can be sourced from any good glazing supply company.

Assembly and installation screws, anchors, anchoring devices, anchor inserts etc where supplied by the glazing contractor. Please contact the glazing contractor for availability of replacement parts.

Sealants for the system and perimeter sealants where supplied by the glazing contractor. Please contact the glazing contractor for type of sealants used and for availability or manufacture to ensure compatibility.

VOLUNTARY GUIDE SPECIFICATION FOR CLEANING AND MAINTENANCE OF PAINTED ALUMINUM EXTRUSIONS AND CURTAIN WALL PANELS

1. SCOPE

This recommendation covers procedures for cleaning a and maintenance of painted aluminum extrusions and curtain wall panels. The procedures are intended for application with painted, architectural aluminum extrusions such as window frames, door frames, railings and trims as well as curtain wall panels, column covers, spandrels, mullions, louvers, vertical trim, etc.

2. PURPOSE

These recommendations are intended to assist architects, contractors, owners, building managers, et al., who are concerned with the care and maintenance of painted, architectural aluminum. The information contains suggested methods as an aid in establishing safe, sound and maintenance procedures.

3. GENERAL

3.1

Organic coatings on aluminum do not normally show an appreciable amount of dirt collection. In many atmospheres dirt or soil would not indicate a detrimental risk to the coating, but cleaning and surface care may be desirable for the sake of appearance. Cleaning may become desirable in areas where heavy industrial deposits have dulled the surface, where materials from constructions processes have soiled the surface or where cleaner run-down from other surfaces should be removed. Local atmosphere conditions as well as building location within a geographical area quite naturally have an on cleanliness. Very often, rainfall may be sufficient to keep exterior surfaces appearing clean and bright. These factors coupled with owner attitude regarding surface appearance probably would determine cleaning schedules. Areas that are in direct sight at lower levels would more likely be cleaned. Less obvious areas would be less frequently cleaned or in some instances, hardly at all. Cleaning of painted aluminum may be scheduled with another cleaning. For example, glass and painted aluminum components can be cleaned at the same time.

3.2

Cleaning will be more often required in areas of low rainfall (i.e. Los Angeles) or in heavily industrialized areas. Foggy coastal regions with frequent cycles of condensation and drying may tend to give a buildup of atmospheric salts and dirt. In any climate, sheltered areas such as overhangs, may become soiled because of lack of rain washing. Through rinsing is especially important after cleaning of these sheltered areas.

3.3

If automatic wall cleaning equipment is to be used on a building, a test should be made early in equipment design to ensure that the cleaning solutions, brushes, as well as the frequency of cleaning should be taken into consideration to ensure that there is no detrimental effect on the coating.

4. CLEANING PROCEDURES AND CARE AFTER INSTALLATION

Construction soils, including concrete or mortar, etc., should be removed as soon as possible. The exact procedure for cleaning will vary depending on the nature and degree of soil. Try to restrict cleaning to mild weather. Cleaning should be done on the shaded side of the building or ideally on a mild, cloudy day. Method of cleaning, type of cleaner, etc., of one component of the building must be used with consideration for other components such as glass, sealants, painted surfaces, etc.

4.1.1

The simplest procedure would be to apply the water rinse with moderate pressure to dislodge the soil. If this does not remove the soil, then a concurrent water spray with brushing or sponging should be tested. If soil is still adhering after drying, then a mild detergent will be necessary.

4.1.2

When a mild detergent or mild soap is necessary for removal of soil, it should be used with brushing or sponging. The washing should be done with uniform pressure, cleaning first with horizontal motion and then with vertical motion. Apply cleaners only to an area that can be conveniently cleaned without changing position. The surface must be thoroughly rinsed with clean water. It may be necessary to sponge the surface. The rinsed surface is permitted to air dry or is wiped dry with a chamois, squeegee or lint free cloth.

4.1.3

Rundown of cleaner (from any operation) to the lower portions of the building should be minimized and these areas should be rinsed as soon as and as long, as necessary to lessen streaking, etc. from unavoidable run down, lower areas should be kept wet or flooded with water. Do not allow cleaning chemicals to collect on surfaces or to “puddle” on horizontal surfaces, crevices, etc. These should be flushed with water and dried. Always clean coated surfaces down from the top to bottom and follow with a thorough rinsing with clean water. (With one story or low elevation buildings, it is recommended to clean from bottom up and rinse from top down).

4.1.4

Mild Detergents – Mild soaps or detergents ruled safe for bare hands should be safe for coated aluminum. Stronger detergents such as some dishwasher detergents should be carefully spot tested. Some of the latter would necessitate rubber gloves, long handled brushes, etc. With any, the finish should be thoroughly rinsed with clean water and dried. Some mild cleaning solutions, which would compromise of selected wetting agents in water solutions, are available for automatic building washing machines.

5.1 CLEANING OF MEDIUM TO HEAVY SOIL

5.1

Some type of mild solvent such as mineral spirits may be used to remove grease, sealant or caulking compounds. Stronger solvent or solvent containing cleaners may be deleterious or softening effect on paints. To prevent harm to the finish, these types of solvent or emulsion cleaners should be spot

tested and preferably the coating manufacture should be consulted. Care should be taken to assure that no marring of the surface is taking place in this manner since this could give an undesirable appearance at certain viewing angles. Cleaners of this type are usually applied with a clean cloth and removed with cloth. Remaining residue should be washed with mild soap and rinsed with water. Use solvent cleaners sparingly.

5.1.1

It may be possible for solvents to extract materials from sealants, which could stain the painted surface or could prove harmful sealants; therefore, these possible effects must be considered. Test a small area first.

5.2

If cleaning of a heavy surface soil has been postponed or in the case of an especially tenacious soil, stubborn stains, etc., a more aggressive cleaner and technique may be required. Cleaner and technique should be matched to the soil and painted finish. Some local manual cleaning may be needed at this point. Always follow the recommendation. Test clean small area first. Cleaners should not be used indiscriminately. Do not use excessive abrasive rubbing as such may alter surface texture or may impart a "shine" to the surface.

5.2.1

Concrete spillage that has dried on the painted surface may become quite stubborn to remove. Special cleaners and/or vigorous rubbing with non-abrasive brushes or plastic scrapers may be necessary.

Diluted solutions of Muriatic Acid (under 10%) may be effective in removing dried concrete stains, however, a test area should be tried first, and proper handling precautions must be exercised for safety reasons. Also, effective proprietary cleaners for concrete and mortar staining are available. See supplier sections for reference companies under 8.1.

5.3

Never Mix Cleaners – The mixing of cleaners may not be ineffective, but also very dangerous. For example, mixing of chlorine containing materials such as bleaches, with other cleaning compounds containing ammonia, can result in poison gas emission.

5.4

Always rinse after removal of heavy surface soil

6. SUMMARY OF GENERAL CLEANING TIPS

6.1
Over cleaning or excessive rubbing can do more harm than good.

6.2
Strong solvents or strong cleaner concentrations can cause damage to paint surfaces.

6.3
Avoid abrasive cleaners. Do not use household cleaners that contain abrasives on painted surfaces.

6.4
Abrasive material such as steel wool, abrasive brushes, etc., can wear and harm finishes.

6.5
Avoid drips and splashes. Remove run downs as quickly as possible.

6.6
Avoid extreme temperatures. Heat accelerates chemical reactions and may evaporate water from solution. Extremely low temperature may give poor cleaning effects. Cleaning under adverse conditions may result in streaking or staining. Ideally, cleaning should be done in shade at moderate temperature.

6.7
Do not substitute a heavy duty cleaner for a frequently used mild cleaner.

6.8
Do not scour painted surfaces.

6.9
Never use paint removers, aggressive alkaline, acid or abrasive cleaners. Do not use trisodium phosphate or highly alkaline or highly acid cleaners. Always do a test surface.

6.10
Follow manufacturers recommendations for mixing and diluting cleaners.

6.11
Never mix cleaners. (See 5.3 for precautions).

6.12
To prevent marring, make sure cleaning sponges, cloth etc., are grit free.

6.13
"An ounce of prevention is worth a pound of cure."

7. GENERAL INSPECTION AND PRECAUTIONS

7.1 Inspection

It is suggested that the building owner provide a qualified inspector who will see that the desired effect is being obtained with the use of sound procedures. Inspections should commence early in the cleaning procedure.

7.2 Building Surroundings

Consideration must be given to possible effects of run down on shrubbery, personnel, equipment, etc., located below. These factors may require consideration toward methods of timing.