



CREATIVE WINDOWS

Installation Advice

Installation Advice V.3 Page 1 of 12

DISCLAIMER

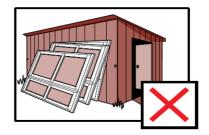
Whilst Creative Windows has made every effort to ensure the accuracy and effectiveness of this information, Creative Windows makes no representation as to the accuracy or effectiveness of the information and takes no responsibility for any loss, damage or injury which may be caused as a direct or indirect result of the use of this information.

Pre-Installation Care of Windows

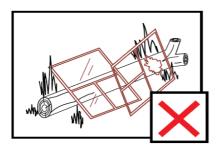
Windows should be stored in a clean, dry area away from cement, lime, paint, acid etc and must be protected from building materials and loose debris such as wet plaster, mortar, render, paint and welding or grinder spatter.

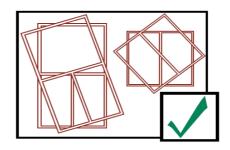
- Store in a protected area and cover where possible to protect against damage.
- Carry frames in the vertical position with sashes locked.
- Do not rack frames out of square.
- Do not remove any protective or bracing materials until prior to installation





Handle and stack frames carefully on site. Stand them upright on their sills (bottom of the window as installed), raised off the ground on pieces of timber or bricks. Stand them against a flat, vertical surface such as a shed and tie firmly in position.





Do not lean windows against a tree or post as they can be subject to permanent damage until installed into the building envelope. If the site is bare, lay frames flat on top of each other with weight evenly distributed to avoid buckling and distortion.

Installation Advice V.3 Page 2 of 12

INSTALLATION

Hint: Turn subsill on its edge and use it as a straight edge across the window opening.

Install so that the frames:

- Are plumb, level, straight and true within acceptable building tolerances.
- Install frames square. Keep sashes closed whilst installing frames. Check diagonals for squareness.
- Are fixed or anchored to the building structure in conformance with the wind loading requirements.
- Will not carry any building loads, including loads caused by structural deflection or shortening.
- Allow for thermal movement.
- Brace or adjust braces where required ensuring there is no bowing of frames.
- Ensure that frames are not twisted between the openings.

Installing Sliding Doors

- Doors must be wound up so they have minimum amount of 14mm cover in the head of the door.
- Check that the sill is <u>straight</u> and <u>level</u>. Pack each end first and then pack evenly at 500mm spacing.
- Put packers under the mullions NOT ANYWHERE AT RANDOM. Put packers 50mm from the edge of the daylight frame to support the weight of the glass.
- Sit the doors on packers and wind the wheels down taking care that they clear the interlockers prior to them being glazed to ensure the tracks don't get scratched.
- When packing bottom tracks the packers must be under the wheels when the door is closed otherwise the doors will not be plumb.
- Packers also need to be placed under the wheels when the door is fully open or the door stiles will not line up with the frame.
- Creative Windows' frames are required to have fixings at 500mm centres. Ensure that all fixing holes
 provided are used.
- Conceal all fasteners/fixings.
- Pack behind all fixing points with durable full width packing from front to rear.
- Top hung sliding doors are to be installed with sufficient fixings through the top track into the structure above as it takes all the load of the door.
- Sliding doors are to be installed with the door in the frame ensuring that the door tracks correctly and all margins are equal before fixing.
- The sill may need to be wedged at either end or the centre mullion to achieve the correct margins around the door in the closed position.
- Ensure the sill is fully supported at 500mm centres: failure to do so may result in sill roll on sliding windows.

Installation Advice V.3 Page 3 of 12

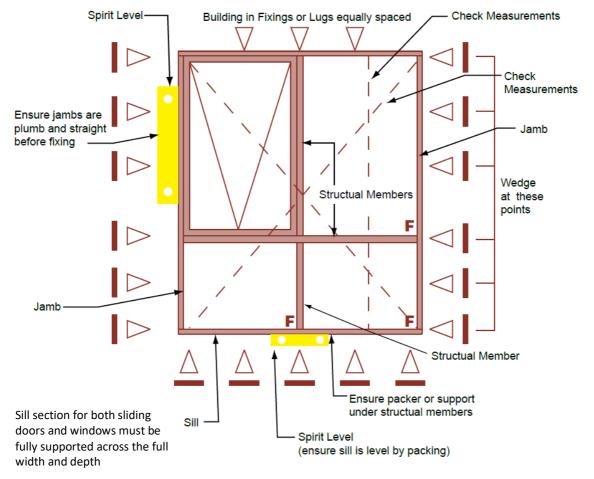
- Sills on all windows and doors must be straight and level and should be packed and secured.
- To ensure the satisfactory long-term performance of sliding doors, the sill should be fully supported.
 Where the sill projects during construction, the sill should be fully supported with a batten on the frame or an angle bracket.
- Ensure that the jambs are not bowed during the construction of the exterior cladding or the internal wall lining.

General Instructions

- Reveals on Aluminium windows and doors must be primed prior to installation into cavity brick construction to prevent moisture absorption.
- Protect doorjambs and sills during construction. Do not slide planks or tread on window frames.
- It is important to prevent any damage to the windows and doors during construction. Do not stand on the windows or doors or use them as a support for scaffolding, or slide material through the frame.
- Do not permit the weight of eaves or arch bars to bear on any window or doorframe. WINDOWS AND DOORS ARE NOT LOAD BEARING.
- Infills and doorstops are sent out taped to the side of the frames. They need to be installed immediately the frame is installed.
- Replacement infills and doorstops will be charged for and may be subject to delay.
- Make accurately fitted tight joints so that neither fasteners nor fixing devices such as pins, screws, adhesives and pressure indentations are visible on exposed surfaces.
- If priming is recommended, prime surfaces in contact with jointing materials.
- Ensure moving parts operate freely and smoothly, without binding or sticking, at correct tensions or operating forces and are lubricated.
- Make sure the doors will lock.
- Do not cover or smother drainage or weep holes.
- Protect all surfaces from brick cleaning acid and other harsh chemicals Remove cement mortar and plaster droppings from windows and doors immediately, taking care to avoid scratching glass and, or frames, as permanent damage can result. Immediate attention must be given to quickly and effectively washing off with water before the material sets. Failure to clean surfaces quickly and appropriately will void the product warranty.
- It is the builder's responsibility to ensure that windows and doors are installed to meet AS2047 and the wind loading and human impact safety glazing requirements of AS 1288.

Installation Advice V.3 Page 4 of 12

- Care should also be taken to protect the frames and glass from grinding or welding spatter. An effective protection method is to cover the face of the product with clear plastic or have an approved coating applied. Contact details for protection companies can be provide on request.
- In situ touch up. Polyester or fluoropolymer coatings: Contact the supplier for approval to apply touch up products otherwise replace damaged material.
- Install flashings/ weather bars/drips/storm moulds/caulking ad pointing so that water is prevented
 from penetrating the between the window frame and the building structure under the prevailing
 service conditions, including normal structural movement of the building.

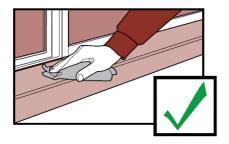


* Fix via building lugs, nails or shim at equally spaced arrow points.

Installation Advice V.3 Page 5 of 12

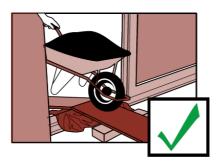
Post Installation Care

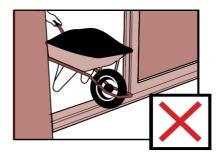
Soiling



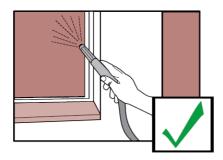


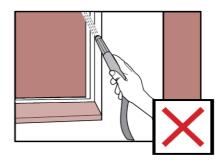
Door tracks & sills





Cleaning





Handover Maintenance and Care

- Window frames and doors, the external face of the window, door frames and doors should be washed with a mild detergent and clean water to remove deposits.
- If the product is exposed to salt air or industrial pollutants, it should be washed at least every 3 months
- Keep tracks free from dirt and grit to avoid premature wear and ensure the drainage slots at sills are kept clear to allow optimum drainage.
- Keep locks, hinges and wheels clean and lubricate regularly with silicone spray to ensure optimum
 performance. IMPORTANT: Cleaning and lubrication of hardware should be performed monthly in
 coastal areas.
- If using a hose or similar, to clean windows and/or doors do not use the full force of a hose/nozzle/jet setting. Use only a fine spray setting.
- To clean glass, flood the surface with a mild detergent solution and wipe the wetted surface with a clean, lint free towel or cloth. Do not scrub as scratching will occur.
- Wipe dry with a dry clean, lint free towel or cloth.

Installation Advice V.3 Page 6 of 12

COMPLETION

CLEANING OF GLASS

PROFESSIONAL CLEANERS

Professional glass cleaners have significant experience and access to equipment, materials and methods, which the general public may not. As professional glass cleaners are acknowledged experts in the cleaning of glass, Creative Windows offers the information on this page as general advice only for the professional glass cleaner to consider as part of the development of their own cleaning processes.

ABOUT THIS CLEANING ADVICE- DISCLAIMER

This information is offered as a general guide only and specific advice should always be sought from a reputable glazier or professional window cleaner before undertaking any cleaning. This guidance does not preclude the use of other methods, materials or equipment, however the user should undertake careful evaluation and make suitable enquiries of the suitability of alternative methods, materials or equipment, before using them.

INSTRUCTIONS TO ALL TRADES AND INDIVIDUALS

Always follow manufacturer's installation and cleaning instructions.

- It is recommended that glass be protected from contamination caused by building materials and methods during construction as this will greatly simplify the glass cleaning task at the end of the project. If the glass is not protected during construction then the glass and frames should be cleaned frequently during construction.
- Construction dust, leachate from concrete and rusting from steel can contribute to the formation
 of mild chemicals, which may stain or otherwise damage the glass.
- Glass should be cleaned using only cleaning materials which are free of grit and debris (to avoid scratching and marking of the glass surface).
- Only detergents and cleaning solutions which are recommended for cleaning glass should be used.
 Mild detergents are preferable.
- Extra care is necessary where high performance reflective glass is installed. The coated surface can
 be susceptible to stains and scratches and therefore requires vigilance during the full construction
 process.
- Temporary screens should be installed if welding, sandblasting, floor sanding, cuffing or other
 potentially damaging construction practices takes place near the glass.
- Glass installations which are adjacent to concrete (e.g. concrete slab floors) require extra care and cleaning due to the abrasive nature of concrete dust.
- All tradesmen should be advised to be aware of damaging glass and windows and to leave in place any materials protecting the window or glass.

Installation Advice V.3 Page 7 of 12

TOUGHENED GLASS

The cleaning of toughened glass requires special care. The glass surface opposite the standards compliance stamp, may, as a consequence of the manufacturing process, have 'pickup' on the surface. 'Pickup' is a deposit of very small particles of glass which are fused to the glass surface. A cleaning method which does not dislodge these particles should be employed otherwise scratching of the glass surface may result. Blades or scrapers have been known to dislodge 'pickup' from the glass surface. A soft cloth, which will not dislodge 'pickup', should be used. It is suggested that professional cleaners consult with their suppliers as to the suitability of available cleaning equipment, materials and methods.

SPECIAL PRODUCTS

Some products such as low-e glass, in particular require specific cleaning procedures.

Please consult either the Viridian website http://www.viridian.com.au/

or the AGG website http://www.australianglassgroup.com.au/care-cleaning-maintenance

for further information.

WHAT NOT TO DO

- Do not use cleaners that contain Hydrofluoric or Phosphoric acid as they are corrosive to the glass surface.
- Do not clean the glass when the glass is hot or in direct sunlight.
- Do not allow cleaning solutions to contact the edges of Laminated glass, Insulating Glass Units or Mirrors.
- Do not store or place other material in contact with the glass. (This can damage the glass or create a heat trap leading to thermal breakage).
- Abrasive cleaners, powder based cleaners, scouring pads or other harsh materials should not be used to clean windows or other glass products.
- Avoid causing extreme temperature changes to the glass as this may lead to thermal fracture of the glass, i.e. do not splash hot water on cold glass or freezing water on hot glass.
- Some tapes or adhesives can stain or damage glass surfaces. Avoid using such materials unless they are known to be easily removed.

Installation Advice V.3 Page 8 of 12

IF DAMAGE OCCURS

If glass is damaged or broken on-site ensure that experienced glaziers are engaged to rectify the situation. Glass can be a safety hazard if not handled properly.

NOTE TO THE PAINTER!

Paint spots have been traditionally removed using a sharp razor blade. The use of a blade can in some cases cause damage to the glass. As an alternative, investigate solvents or graffiti removal materials, ensuring that they will not damage the glass. If a blade or scraper is used then the risk of damage can be reduced by using a scraper which has a clean edge and is held at an angle of 30 degrees to the glass. Consult the supplier of the blade or scraper as to how it is best used to clean glass. However, surface coated, modified or tinted glass requires special care. Seek cleaning advice from your local glass merchant.

FRAME CLEANING

DISCLAIMER

Whilst Creative Windows has made every effort to ensure the accuracy and effectiveness of this information, Creative Windows makes no representation as to the accuracy or effectiveness of the information and takes no responsibility for any loss, damage or injury which may be caused as a direct or indirect result of the use of this information.

PERIMETER FRAMING

Your aluminium windows and doors have been manufactured using the highest quality materials available to the Architectural industry. Constructed from Architectural grade aluminium and high quality stainless steel hardware, these products are highly corrosion resistant and exceptionally strong. With a moderate amount of maintenance, they will retain their good looks and resist the elements for years to come.

They have been designed to resist corrosion and rusting, but as with all external elements on the building require some maintenance to keep them looking good and performing well. Depending on how harsh the environment elements are, the maintenance period will vary.

As a general guide, if the windows and doors are exposed to salt air or industrial pollutants, they should be washed at least every three (3) months.

Aluminium windows and doors should only ever need to be washed down with a soft bristled brush using warm water and mild detergent. Rinse well with fresh water and remove any detergent residue. Care should be taken to avoid excessive amounts of water entering the roller and locking system. Strong detergents and abrasive cleaners should never be used to clean the aluminium as they may scratch or damage the surface finish.

Installation Advice V.3 Page 9 of 12

Information Extracted from Australian Window Association Technical Bulletin February 2004

ALERT!! Aluminium Windows Finishing and Corrosion

Powdercoated Surfaces

All powdercoatings gradually change their appearance when exposed to the weather. The changes that take place occur to different rates, the rates depending on the aggressiveness of the environment and on the ability of the powdercoatings to resist those changes.

Erosion of the powdercoating by natural weathering depends very much on exposure conditions. Products facing north or west and installed at an angle from the vertical, can be expected to deteriorate at up to twice the rate that would occur for products installed vertically and facing south or sheltered from the elements. Due to the powdercoating's thickness and low erosion rate, which rarely exceeds 3 um/year, powdercoatings generally have a long-life expectancy.

Cleaning is essential if the fine finish of powdercoated aluminium is to be preserved and the original performance characteristics are to be maintained.

Deterioration of the coating occurs, mainly as a result of ultraviolet light, grime deposition and attack by contaminated moisture, which in the coastal environment contains chlorides and in an industrial or urban environment contains chlorides and sulphur compounds. Deposited grime absorbs moisture like a sponge and holds it against the powdercoated surface; this permits corrosive attack to proceed, thereby damaging the coating.

Recommendations for the frequency of cleaning are as follows:

- a) In a rural atmosphere, where grime and deposition and pollution are at a minimum, the leaning every six months may be sufficient to remove deposits and restore the appearance.
- b) In industrial and marine environments, monthly cleaning is advisable, however the maximum period between cleanings should never be more than three months. Under the worst conditions involving heavy grime deposition and atmospheric pollution by both sulphur compounds and chlorides, more frequent cleaning is advisable if deterioration of the coating is to be prevented.
- c) Generally, for outdoor applications, powdercoated aluminium or its alloys should be cleaned at the same frequency as is required for windows, using a non- abrasive ph- neutral detergent solution. Surfaces should be thoroughly rinsed after cleaning to remove all residues. Solvent solutions should not be used for cleaning powdercoated surfaces.

The effect that the environment has on the life of a coating system is highly important. It should be appreciated that corrosive environments do not necessarily affect bare metal in the same way as they affect coatings. Environments that would not be considered particularly corrosive to metal, such as hot dry climates with a high amount of (UV) radiation, can cause early break down of some coatings. Tropical environments, with high humidity and rainfall, which promote mould and fungal growth, are high aggressive to organic coatings. Furthermore, the colour of the coating may influence its performance in some environments.

A significant acceleration of corrosion rate can occur in the following circumstances:

- a) At locations where the metal surface remains damp for an extended period, such as where surfaces are not freely drained or are shaded from sunlight.
- b) On unwashed surfaces, i.e. surfaces exposed to atmospheric contaminants, notably coastal salts, but protected from cleansing rain.

Installation Advice V.3 Page 10 of 12

Anodized Surfaces

Regularity rather than intensity is the key to efficient maintenance and aluminium, more than most materials, responds to this approach. Regular cleaning is essential if the finish of anodizes aluminium is to be preserved over the years. Deterioration of the anodic oxidation coating can occur, mainly as a result of grime deposits and subsequent attack by moisture. Deposited grime can retain contaminated moisture on the anodized surface, permitting corrosion to proceed ad thereby damaging the anodic oxide coating. Deposits should not be allowed to build up within the sill so weep slots should remain free for water to drain.

The frequency with which cleaning should be carried out will range from monthly to six monthly intervals according to the environment and recommended maximum cleaning intervals are given in AS 1231:2000 – Appendix H, Table H1. The cleaning method depends o the degree of deterioration that may already have occurred and on the scale of the operation. Hand rubbing is often used for small work but large expanses of anodized surfaces, as occur in multi-storey buildings, call for carefully controlled methods to loosen deposits.

The anodized aluminium should be washed with warm water containing a suitable wetting agent or with a mild soap solution. Fibre brushes may be used to loosed attached grime but the use of emery paper, sand paper, steel wool or other highly abrasive materials and acid or alkaline cleaners is not rev=commended as they damage the anodic oxide coating. The use of a mild abrasive such as pumice powder and water may sometimes be necessary. It is essential to rinse thoroughly after cleaning using copious applications of clean water, particularly where crevices are present. Where greasy deposits are present, cleaning may be carried out using a soft cloth dipped in white spirit. Since emulsion cleaners or proprietary chemical agents may attack the coating, they should never be used except in consultation with companies that specialize in the cleaning of anodized aluminium. After cleaning, the anodized aluminium may be treated with a good quality wax.

TABLE H1
RECOMMENDED THICKNESS GRADES AND WASHING REQUIREMENTS

Description	Atmospheric classification (See Appendix I)	Thickness grade	Cleaning intervals, months Maximum
Interior			
Mild	1	AA5	12
Moderate	2	AA10 and AA15	12
Severe*		AA20	6
Very severe*	_	AA25	3
Exterior			
Mild	3	AA15	12
Moderate	3	AA15, AA20 and AA25	9
Tropical	4	AA25	9
Severe	5	AA25	6
Very severe*	_	AA25	1 to 3
	1		

^{*} These environments are not defined in this Standard. A severe or very severe interior environment could occur as a result of high moisture condensation, e.g. resulting from an indoor swimming pool.

Very severe exterior environments usually occur at or near the beachfront in regions of rough seas and surf beaches.

Installation Advice V.3 Page 11 of 12

HARDWARE MAINTENANCE

DISCLAIMER

Whilst Creative Windows has made every effort to ensure the accuracy and effectiveness of this information, Creative Windows makes no representation as to the accuracy or effectiveness of the information and takes no responsibility for any loss, damage or injury which may be caused as a direct or indirect result of the use of this information.

Track and bearings

- Keep tracks free from dirt and grit to avoid premature wear and ensure that drainage slots in sills are kept clear to allow optimum drainage.
- Any lubrication should be done with Silicon Spray ONLY. DO NOT use oil-based sprays or lubricants such as WD40 or petroleum jelly as these attract dirt particles and cause damage.
- Creative Windows recommends the use of Curtain Track Lube supplied by Wurth.

Hangers, pivots and brackets

A light spray application of Silicon Spray, followed by a light wipe with a dry cloth to remove excess
is recommended. Exposed surfaces should first be wiped down with warm soapy water and soft
rag and then rinsed clean before applying the preventative.

Hinges

Wipe down the visible surfaces with warm soapy water on a soft rag and then rinse off by wiping
with a clean damp rag. Application of a thin film of Silicon Spray will help to maintain the original
lustre of the metal finish.

Locks

 Periodic lubrication of the lock plus any auxiliary lock components should be carried out using Silicone Spray only.

Installation Advice V.3 Page 12 of 12