

Operation & Maintenance Manual

Window, door and curtain wall systems



SENIOR ARCHITECTURAL SYSTEMS

Introduction

Senior Architectural Systems offers a complete range of windows, doors and curtain wall systems.

This document is intended to provide assistance with a range of operational and maintenance areas. For further information or support please contact us on 01709 772 600 or email info@sasmail.co.uk.

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Warranty Conditions

In order to maintain the warranty, it is important that the information in this booklet is followed carefully. The below bullet points are a list of terms, guidance and advice that must be adhered to, in conjunction with the information on the page for the specific system supplied.

A qualified technician must execute all major adjustments, replacements or maintenance works. Failure to carry out these actions without the correct resources or product awareness could result in personal injury or damage to the mechanism, which may result in the product being unsafe and the warranty being void.

All products should be checked for defects regularly with particular attention paid to moving parts. Any damaged or faulty parts should be reported to the relevant person immediately and the window or door should be secured and not operated.

Window, door and curtain walling frames, as well as associated hardware, must be fully protected during the building stage to prevent damage, dust, debris and building materials from contacting the frame and hardware surfaces.

Life safety products (such as, but not limited to, escape/panic doors) may need to be checked and maintained more frequently than outlined within this document. The frequency of maintenance will depend on many factors from frequency of use, to location. A responsible person will need to assess products on a project specific basis and implement suitable maintenance intervals to ensure products are safe and operate as require and expected, in case of emergency.

All cleaning, maintenance and operational checks must be carried out, as detailed within this document and at building handover stage.

Additionally to the cleaning frequencies contained in this document, if any surface contaminants are observed, cleaning and maintenance must be carried out as detailed within this document immediately.

Aggressive environments, commonly defined as 5 kilometres from the coast, estuaries, tidal rivers or industrial areas, or products that are within spa facilities (swimming pools, saunas, etc.), as well as any other aggressive atmospheres or environments, may have differing cleaning, maintenance, warranty periods, methods. Some aspects of the window/ door/curtain walling may also need additional considerations, such as the use of certain material in certain environments.

Windows and doors should not be left in the open position unattended. This may allow the window/door to freely swing open or slam shut causing damage.

Windows and doors should be opened and closed in a controlled manner. They should not be pushed open and allowed to swing open or slammed shut in an uncontrolled manner.

Never leave windows in the wash position. Windows should not be left open in a position that is not one of the pre-set restriction positions. Do not leave windows open unattended and ensure they are fully closed in adverse weather conditions and when not in use.

The product must be fabricated and installed in keeping with the relevant SAS documentation, which is available on our website or upon request.

Misuse negates the warranty. There are many aspects of misuse, as a result this will be defined on assessment.

SAS will not accept responsibility for claimed defective parts where SAS have not been provided with the opportunity to inspect the parts concerned on site and in situ.

SAS will not accept claims for parts that they have not been paid for (unless payment is still due under their standard terms).

Certain products will fade due to sunlight exposure. This is not a sign of failure and does not necessarily mean replacement parts are required. Fading is to be expected from certain components.

The warranty covers only parts purchased from SAS in the form they are purchased. It does not cover fabrication and installation; this is not carried out by SAS.

The warranty starts from the date of purchase from SAS.

The warranty does not cover things like damage due to burglary or accidental damage.

The warranty only covers the cost of the replacement part and delivery. It does not cover additional loss, damage or costs incurred.

The warranty will begin on date of delivery.

Before operating a window/door, ensure it is safe to do so and it is possible to carry out operation in a safe and controlled manner.

Appropriate PPE must be used when using cleaning products.

Care must be taken to ensure carrying out maintenance and cleaning is done safely.

The entire contents of this document must also be read in conjunction with a copy of our terms and conditions, which are applicable at all times and available from our website.

Casement Windows

SPW300 / SPW600 / PRe® Window / Ali VU

OPERATION

Despite having a variety of configurations, hinge and locking methods; the casement window is operated in the same manner. To operate the casement window, insert the key and depress the button (depending on the handle type) and rotate the handle through 90° to disengage the locking mechanism and open by pushing outwards. To lock the window, reverse the process.

CONFIGURATIONS

- **Top-hung:** the vent opens from the bottom of the window.
- **Side-hung:** the vent opens from a vertical side of the window.

HINGE OPTIONS

The casement window utilises either friction stays or butt hinges.

FRICTION STAYS

- **Standard Friction Stays** allow a quick and easy one handed operation which doesn't incorporate any sort of restrictor.
- **Restrictor Stays** open to a certain angle that is determined by positioning and fixing a slide bar to a pre-set position, which can permanently restrict the window to an opening angle or dimension.
- **Egress/Easy Clean Stays** have the same initial opening of a standard friction stay but will open to a wider angle. To move the window to the cleaning position, push down and slide the purple slide along. Push the vent away from the jamb. Use extreme care to ensure the vent stays square when opening. Failure to do so may cause damage to the stay. Fully closing the vent will reset the stay to its normal function. This applies to side hung windows only.

RESTRICTOR ARMS

- On outward opening windows supported by either standard butt hinges or friction stays, a pair of restrictors can be added. These are independently fixed and are used to restrict the window and provide ventilation and safety.
- Our restrictors can be overridden with a key.

BUTT HINGES

Butt hinges aren't adjustable and are visible externally where the frame and vent meet.

LOCKING OPTIONS

On all configurations, the three main methods of locking on a casement window are:

- Espagnolette Locking
- Cockspur Locking
- Shoot-bolt Locking

Espagnolette Locking

Espagnolette locking systems have a handle fitted in the centre of the vertical or horizontal stile, which operates gearing located within the window section. When the handle closes, the mushroom heads move into recessed keeps and engage, locking the window securely. When closed, the handle will sit vertical on the side hung and horizontal on a top hung.

The handle can be locked with a key supplied by the installer (depending on the handle type). To operate, unlock using the key depress the button and rotate the handle through 90° to disengage the locking component and open the window. To lock, simply reverse the process.

Cockspur Locking

This is a surface mounted handle and engages against a nylon wedge on the visible upstand of the outer frame.

To operate, depress the button and rotate through 90° to open the vent. To lock, simply reverse the process.

The handle can be locked with a key supplied by the installer. (Depending on the handle type.)

Shoot-bolt Locking

Shoot-bolt locking works and operates in the same way as espagnolette locking, but has shoot-bolts situated at the corners of the opening vents of the windows, which locate into the keeps fitted on the frame of the window.

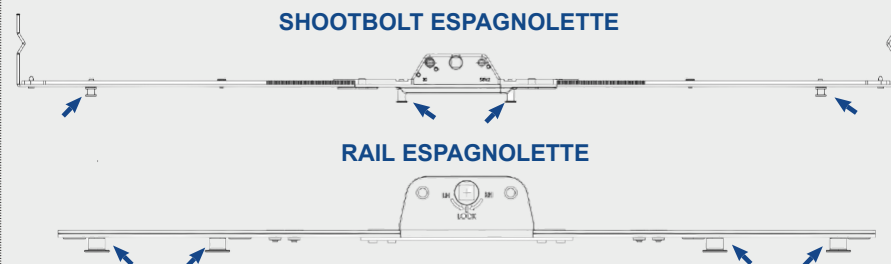
FOLDING OPENERS

To operate, the top arm operating eye is to be moved upwards to disengage the folding opener. Then push this towards the window, which should extend the folding opener arms, moving the operating eye into the middle; at this point, move the operating eye down so the opener is secured. To close the vent, the top arm operating eye is to be moved upwards, then the tandem eye needs to be rotated away from the window. Pull the top arm down to re-engage the folding opener.

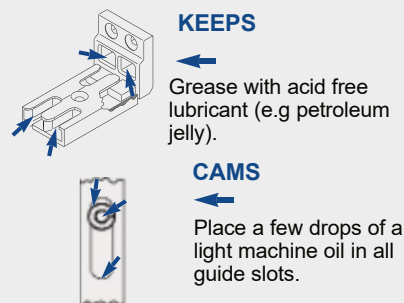
MAINTENANCE

ESPALETTE LOCKING MECHANISMS

To ensure that your window espagnolettes function correctly, it is important that the maintenance procedure (shown in the adjacent diagrams) is carried out in keeping with the table on the following page.



Arrows indicate lubrication points.



KEEPS

Grease with acid free lubricant (e.g petroleum jelly).

CAMS

Place a few drops of a light machine oil in all guide slots.

ESPAG LOCKING MECHANISMS CONTINUED...

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table below:

- All fittings must be inspected to ensure that they are firmly fixed. Where necessary fixing screws should be tightened.
- All locking mechanisms must be lubricated as shown above and detailed below:
 - All residues of old lubricants should be removed prior to maintenance.
 - Locking mechanisms and keeps should be wiped down with a soft damp cloth and dried with a soft clean cloth. A smear of petroleum jelly should be applied to the keeps as shown on the previous page. Silicone spray should be applied to all moving parts on the locking mechanism. Never use solvent-based lubricants (such as degreasing spray, ammonia based or abrasive cleaning fluids).
- To prolong the serviceable life of the window, care must be taken not to scratch or damage the surfaces of the window hardware during maintenance/cleaning. Always use soft cloths for cleaning - do not use wire wool or scouring agents.

FOLDING OPENERS

Ensure the following maintenance is carried out in keeping with the table below. All components should be cleaned and free from any foreign objects or obstructions. The moving parts should be checked for ease of movement and if you feel resistance when opening or closing them, stop and inspect for obstructions.

All moving parts should be lubricated using a non-staining 3 in 1 multi-purpose oil or similar which lubricates, cleans and prevents rust.

The anodised surfaces should be cleaned in keeping with the table below. This should be carried out using a non-alkaline detergent in warm water and dried down with a cloth such as a chamois leather.

An unobtrusive area should be test cleaned before work begins. The cleaner should be in the same concentration and will be used and applied in the same manner. The cleaner should be allowed to dry on the surface to judge the effect on the finish.

After all cleaning, surfaces should be washed down to prevent deposits remaining on the finish. Do not use a high pressure hose or steam cleaners, solvent based cleaners or abrasive materials.

COCKSPUR HANDLE

The handle must be cleaned using water or a mild detergent on a damp cloth, in keeping with the table below.

Do not use acid, alkaline, solvent or abrasive cleaning agents or materials.

COCKSPUR HANDLE

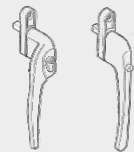


HANDLES

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table below:

- Clean to remove dirt and surface contamination.
- Painted finishes should be cleaned using only warm water with a small amount of domestic detergent added (less than 5%) and applied using a soft cloth or sponge.
- Once cleaned, the furniture should then be dried thoroughly with a soft clean cloth. Do not use any abrasive cloths or cleaning agents on a painted surface.
- Satin Nickel/Brushed Stainless effect and polished chrome products should be cleaned with a damp soft cloth then dried with a clean duster. Non- abrasive wax polish can be applied to the surface to help maintain its appearance. Under no circumstances should an abrasive cloth or cleaning agent be used.

HANDLES



FRICTION STAYS AND RESTRICTORS

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table below:

- Lubricate all pivot points with light machine oil and wipe away excess, one drop per pivot is sufficient. We suggest one of the following lubricants or equivalent: general light engineering oil with corrosion inhibitors or 3 in 1 oil.

Note: Solvent based aerosol sprays e.g. Degreasing sprays are not suitable for this application.

- Care must be taken not to damage the surface of the hardware. Abrasive cleaning agents must be avoided.
- Clean any dirt or debris from the hinge and clear any obstructions from the pivots, sliding shoe and track (we recommend using damp cloth and a mild solution of warm soapy water. Apply with a soft cloth and dry thoroughly afterwards).
- All fittings must be inspected to ensure that they are firmly fixed. Where necessary fixing screws should be tightened.

WARRANTY

Below shows the warranty for each part:

CASEMENT WINDOW SPW300 / SPW600 / PURE® Window / Ali VU	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING /MAINTENANCE FREQUENCIES
ESPAG LOCKING MECHANISMS	10 YEARS	N/A	12 MONTHS
ESPAG RODS (SPW6EX RANGE)	10 YEARS	240 HOURS SALT TESTING	MONTHLY
FRICTION STAYS	10 YEARS	480 HOURS SALT TESTING	*SPRING & AUTUMN
ESPAG HANDLES	10 YEARS	2 YEARS	*SPRING & AUTUMN
RESTRICTORS	5 YEARS	5 YEARS	*SPRING & AUTUMN
FOLDING OPENERS	5 YEARS	5 YEARS	QUARTERLY
COCKSPUR HANDLE	2 YEARS	10 YEARS	*SPRING & AUTUMN

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.



Tilt & Turn / Inward Opening Windows

SPW600 / PRe® Window

OPERATION

These versatile, inward opening windows are capable of two methods of operation: tilt mode to allow ventilation and a turn mode to allow cleaning on the external face and emergency exit. These windows may also be Tilt only or Turn only. Locking is achieved by a series of cams, which are positioned on a sliding mechanism around the periphery of the window.

The handle is rotated to one of three positions – 'Closed', 'Tilt' or 'Turn'. Ensure that the window is completely shut before changing the handle position.

To operate the window, turn the key to unlock if a locking handle has been fitted.

To select 'Tilt', from the 'Closed' position, rotate the handle through 90° until the handle is horizontal and pull inwards. The top of the window will tilt inwards to allow ventilation.

To select "Turn" from the "Tilt" position, close the window and rotate the handle upwards and pull inwards. The side of the window will turn inwards to allow cleaning on the external face and emergency exit.

To lock the window, push the window shut and rotate the handle downwards until it reaches the 'Closed' position. This is pointing downwards. Lock the handle using the key and ensure that it is removed when not in use. (Do not attempt to open the window when the handle is in between any of the three positions.)

If an offset handle (handle is not in the middle of the vent frame) or tall windows have been installed, it may be necessary to use two hands to close the vent; one hand to operate/close using the handle and one hand further up the vent to ensure the vent is fully closed in all areas before operating the handle. Take care not to trap your fingers in between the vent and the frame when doing this.

MAINTENANCE

All aspects of the gearing should be visually checked and adjusted if necessary if keeping with the table below:

- Fixings of link arm, handle, hinges, corner transmission and wedges should be checked and tightened if required.
- Ensure that the link arm friction is sufficient to keep the window in the Tilt position without affecting the normal operation of the window. If necessary the friction can be adjusted by the adjustment screw.
- Check the working of the mishandling device. The handle should only be turned a few degrees when the window is in open position, certainly do not force the handle.

LOCKING MECHANISMS

All moving parts must be lubricated, in keeping with the below table using a light grease such as petroleum jelly, or similar.

HANDLES

Window handles should be cleaned with a soft, dry cloth in keeping with the below table. If further cleaning is required use a mild solution of warm, soapy water on a soft cloth and dry thoroughly afterwards.

WARRANTY

Below shows the warranty for each part:

TILT & TURN / INWARD OPENING WINDOW SPW600 / PRe® Windows	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING /MAINTENANCE FREQUENCIES
LOCKING MECHANISM	10 YEARS	480 hours salt testing	12 MONTHS
HANDLES	10 YEARS	2 YEARS	*SPRING & AUTUMN

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.

Winkhaus has a 10 year mechanical & 2 year finish (handles).

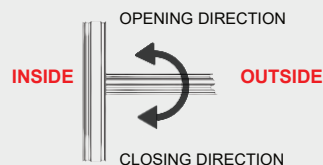
Mila has a 10 year mechanical & 10 year finish warranty on black and white handles & 5 year finish warranty on plated finished handles.

Overswing (Reversible) Windows

SPW300 / SPW600 / PRe® Window

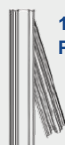
OPERATION

Overswing windows are fully reversible windows, which are top hung and protrude outwards. When in operation, the opening vent is always situated on the outside of the outer frame, as shown in the illustration below.



RESTRICTOR POSITIONS

When the window is being opened and closed, there are 3 restriction positions (see illustrations below as a rough guide).



1. SAFETY POSITION



2. VENTILATION POSITION



3. WASH POSITION

GENERAL OPERATION

Before operating the window, please read the following carefully. Do not overreach when pushing the window open. If you cannot operate the window via the handle without overreaching, continue the operation by gripping the head section of the vent and pulling; ensure the vent opens evenly, without twisting. This needs to be considered when operating the window to ensure safe operation and maintenance.

To operate the Overswing window, insert the key into the handle, turn the key and depress the button to unlock (if non-locking handles are installed, this is not required.) With the button depressed, rotate the handle 90° upwards to disengage the locking mechanism and open by pushing outwards. The window will open to the safety position (as shown above in illustration 1).

To put the window in to the ventilation position (as shown above in illustration 2) depress the release lever; this is in the hinge channel within the outer frame— this is shown in further detail in the illustration on the right and may require key override. (Also shown on the right). With the release lever depressed, push the window into the ventilation position.

To open the window into the wash position (as shown in illustration 3), again depress the release lever; this is in the hinge channel within the outer frame and while it is depressed, push the bottom of the window out as far as possible – do not overreach when doing this. Continue the reversal by gripping the top of the vent with two hands spaced equally to ensure the vent opens evenly, without twisting, and pull downwards until the vent restricts into the wash position. Ensure the release lever has located before carrying out any cleaning.

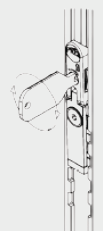
Never leave the window in the wash position. Windows should not be left open in a position that is not one of the pre-set restriction positions.

To close the window, reverse the process, pressing the restriction device at each restriction point.



OVERRIDE OF RESTRICTOR

The restrictor lever can be found on the left-hand hinge (viewed from inside) and must be pressed at each restriction position. This is only found on module sizes M6.0 and above.



KEY OVERRIDE OF RESTRICTOR

Insert the supplied key into the restrictor (in the channel of the hinge arm within the outer frame) and rotate 90° anti clockwise to release restriction. Reverse this procedure to restrict.

MAINTENANCE

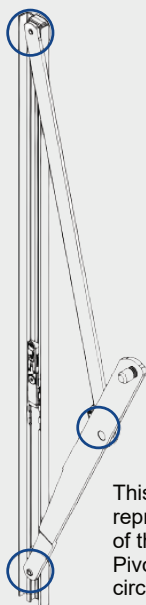
OVERSWING HINGE ARMS

Slider channels should be lightly lubricated with a white neutral grease (e.g. Petroleum Jelly) in keeping with the table on the following page. All pivot points in the hinge should be kept lightly oiled with 3 in 1 oil (degreasing spray must not be used) to ensure long life of the components, in keeping with the maintenance frequency on the following page.

All fittings must be inspected in keeping with the table on the following page, to ensure they are tight. Where necessary, fixing screws should be tightened.



This is a cross section of the slider channels. The arrows are showing what needs lubricating.



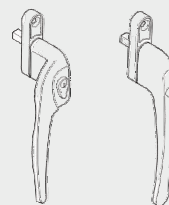
This is a representation of the hinge. Pivot points are circled.

HANDLES

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table overleaf:

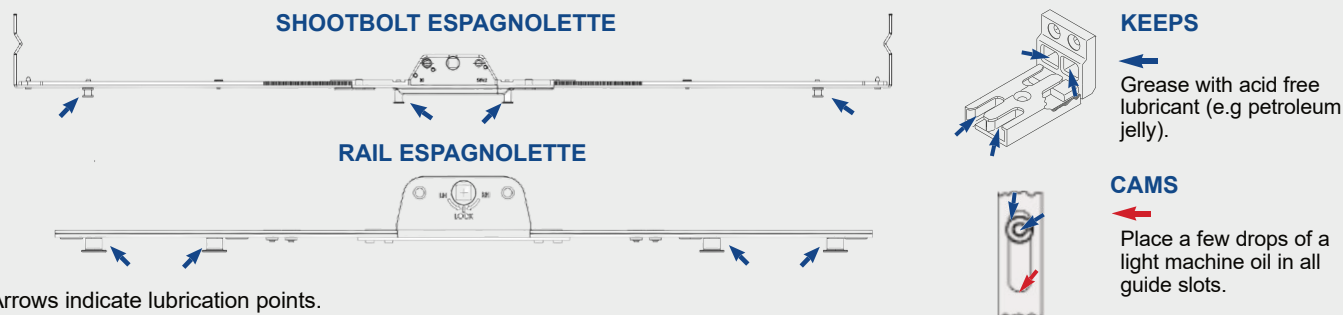
- Clean to remove dirt and surface contamination.
- Painted finishes should be cleaned using only warm water with a small amount of domestic detergent added (less than 5%) and applied using a soft cloth or sponge.
- Once cleaned, the furniture should then be dried thoroughly with a soft clean cloth. Do not use any abrasive cloths or cleaning agents on a painted surface.
- Satin Nickel/Brushed Stainless effect and polished chrome products should be cleaned with a damp soft cloth then dried with a clean duster. Non- abrasive wax polish can be applied to the surface to help maintain it's appearance. Under no circumstances should an abrasive cloth or cleaning agent be used.

HANDLES



ESPAG LOCKING MECHANISMS

To ensure that your window espagnolettes function correctly, it is important that the maintenance procedure (shown in the adjacent diagrams) is carried out. In keeping with the table below.



Arrows indicate lubrication points.

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table below:

- All fittings must be inspected to ensure that they are firmly fixed. Where necessary fixing screws should be tightened.
- All locking mechanisms must be lubricated as shown above and detailed below:
 - All residues of old lubricants should be removed prior to maintenance.
 - Locking mechanisms and keeps should be wiped down with a soft damp cloth. A smear of petroleum jelly should be applied to the keeps as shown on the previous page. Silicone spray should be applied to all moving parts on the locking mechanism. Never use solvent-based lubricants (such as degreasing spray, ammonia based or abrasive cleaning fluids)
- To prolong the serviceable life of the window, care must be taken not to scratch or damage the surfaces of the window hardware during maintenance/cleaning. Always use soft cloths for cleaning - do not use wire wool or scouring agents.

COCKSPUR HANDLE

The handle must be cleaned using water or a mild detergent on a damp cloth, in keeping with the table below.

Do not use acid, alkaline, solvent or abrasive cleaning agents or materials.

COCKSPUR HANDLE



WARRANTY

Below shows the warranty for each part:

OVERSWING (REVERSIBLE) WINDOW SPW600 / PURe® Window	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING / MAINTENANCE FREQUENCIES
ESPAG LOCKING MECHANISMS	10 YEARS	N/A	*SPRING & AUTUMN
OVERSWING HINGE ARMS	10 YEARS	1 YEAR	*SPRING & AUTUMN
ESPAG HANDLES	10 YEARS	2 YEARS	12 MONTHS
COCKSPUR HANDLE	2 YEARS	10 YEARS	*SPRING & AUTUMN

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.

Parallel Windows

SFFP / PRe® Window

OPERATION

PRe® PARALLEL WINDOW OPERATION

HANDLE OPERATION

The window is operated by inserting the key into the window handles, on both sides of the vent, and turning the keys to unlock the handles (this depends on the handle type – if non-locking handles are used this is not required). Remove the keys before proceeding.

Depress the button on the handles and rotate both through 90° (so the handles point towards each other) to disengage the locking mechanism. Taking both handles with both hands, open by pushing the vent outwards. Ensure that the vent is pushed open parallel and that the window is not twisted or opened unevenly when pushing. To lock the window, simply reverse the process.

SFFP PARALLEL WINDOW OPERATION

FOR VENTS LESS THAN 1200mm HIGH AND WIDE

The window is operated by inserting the key into the window handle and turning the key to unlock the handle (this depends on the handle type – if non-locking handles are used this is not required).

Rotate the handle through 90° (so the handle points inwards/away from the glass) to disengage the locking mechanism. Open the vent by pushing outwards with the handle. Ensure that the vent is pushed open parallel and that the window is not twisted or opened unevenly when pushing. To lock the window, reverse the process.

FOR VENTS LARGER THAN 1200mm HIGH AND/OR WIDE

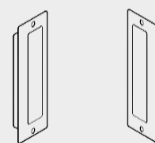
The window is firstly unlocked by inserting the keys into the window handle/s and turning the keys to unlock the handle/s (this depends on the handle type – if non-locking handles are used this is not required). Rotate the handle/s through 90° (so the handle/s points inwards/away from the glass) to disengage the locking mechanism.

Depending on the specific arrangement, the vent may have a handle on both vertical edges or one handle on the bottom edge and a flush pull handle on both vertical edges (see illustration).

To open the vent, take both handles or flush pull handles, on the vertical edges, with both hands and open by pushing the vent outwards. Ensure that the vent is pushed open parallel and that the window is not twisted or opened unevenly when pushing. To lock the window, reverse the process.

IMPORTANT: Do not use a handle on the bottom edge to operate the vent as this may twist the vent. The window should be operated using the handles or flush pull handles on the vertical edges ensuring the vent is opened/closed parallel and that the window is not twisted or opened unevenly when pushing/pulling.

FLUSH PULL HANDLES USED TO OPEN AND CLOSE VENTS



ALTERNATIVE OPERATION METHOD (FOR PRe® & SFFP)

It may be that an alternative means of opening and closing the window has been used, for example a push bar.

These are generally used to make it easier to operate the window without twisting or opening unevenly.

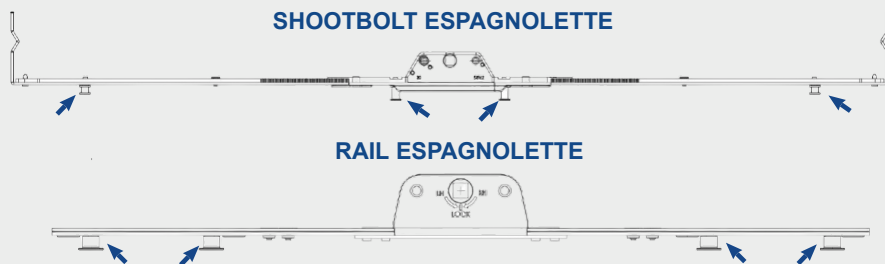
If this is the case, unlock the handle/s and turn them through 90° (so they point inward on SFFP or towards each other on PRe) to disengage the locking mechanism. Then, with two hands spaced equally to ensure the vent opens evenly and without twisting, grip the push bar and push the vent open.

To lock the window, reverse the process.

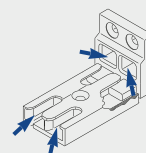
MAINTENANCE

ESPAG LOCKING MECHANISMS

To ensure that your window espagnolettes function correctly, it is important that the maintenance procedure (shown in the adjacent diagrams) is carried out in keeping with the table on the following page.



Arrows indicate lubrication points.



KEEPS

Grease with acid free lubricant (e.g petroleum jelly).



CAMS

Place a few drops of a light machine oil in all guide slots.

ESPAG LOCKING MECHANISMS CONTINUED...

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table below:

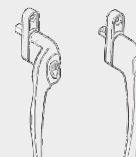
- All fittings must be inspected to ensure that they are firmly fixed. Where necessary fixing screws should be tightened.
- All locking mechanisms must be lubricated as shown above and detailed below:
 - All residues of old lubricants should be removed prior to maintenance.
 - Locking mechanisms and keeps should be wiped down with a soft damp cloth. A smear of petroleum jelly should be applied to the keeps as shown on the previous page. Silicone spray should be applied to all moving parts on the locking mechanism. Never use solvent-based lubricants (such as degreasing spray, ammonia based or abrasive cleaning fluids)
- To prolong the serviceable life of the window, care must be taken not to scratch or damage the surfaces of the window hardware during maintenance/cleaning. Always use soft cloths for cleaning - do not use wire wool or scouring agents.

HANDLES & SFFP HANDLES

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table below:

- Clean to remove dirt and surface contamination.
- Painted finishes should be cleaned using only warm water with a small amount of domestic detergent added (less than 5%) and applied using a soft cloth or sponge.
- Once cleaned, the furniture should then be dried thoroughly with a soft clean cloth. Do not use any abrasive cloths or cleaning agents on a painted surface.
- Brushed Stainless/Satin Nickel effect and polished chrome products should be cleaned with a damp soft cloth then dried with a clean duster. Non-abrasive wax polish can be applied to the surface to help maintain it's appearance. Under no circumstances should an abrasive cloth or cleaning agent be used.

PURE® HANDLES



SFFP HANDLES



PARALLEL FRICTION ARMS

We recommend the below maintenance, cleaning and checks are carried out at intervals in keeping with the table below:

- Lubricate all pivot points with light machine oil and wipe away excess, one drop per pivot is sufficient. We suggest one of the following lubricants or equivalent: general light engineering oil with corrosion inhibitors or 3 in 1 oil.
Note: Solvent based aerosol sprays e.g. Degreasing sprays are not suitable for this application.
- Care must be taken not to damage the surface of the hardware used. Abrasive cleaning agents must be avoided.
- Clean any dirt or debris from the hinge and clear any obstructions from the pivots, sliding shoe and track (we recommend that using a damp cloth and a mild solution of warm soapy water. Apply with a soft cloth and dry thoroughly afterwards).
- All fittings must be inspected to ensure that they are firmly fixed. Where necessary fixing screws should be tightened.

WARRANTY

Below shows the warranty for each part:

PARALLEL WINDOW SFFP / PURE® Windows	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING / MAINTENANCE FREQUENCIES
ESPAG LOCKING MECHANISMS	10 YEARS	N/A	*SPRING & AUTUMN
PARALLEL FRICTION ARMS	12 YEARS	12 YEARS	*SPRING & AUTUMN
ESPAG HANDLES	10 YEARS	2 YEARS	12 MONTHS
SFFP HANDLES	1 YEAR	1 YEAR	*SPRING & AUTUMN

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.

Rebated Door Systems

SPW600 / PRe® FOLD / Ali FOLD / PRe® Commercial Door

OPERATION

GENERAL

Rebated doors are available in a variety of styles and configurations. The doors are rebated meaning they are single action, opening either inwards or outwards.

SINGLE AND MASTER DOOR OPERATION

Master Door - The master door is the primary door and is used as the main point of entry/exit as part of a double door set.

Lever Operated Doors - To unlock the door, insert the key into the cylinder and turn it 360° away from the door keep to retract the central dead bolt, then remove the key from the cylinder. Push the handle down to disengage the rest of the locking mechanism and, while holding the handle down, open the door outwards/inwards (depending on the configuration).

To lock the door, ensure the door is fully closed so that the latch engages into the keep. Lift the handle upwards to engage the central dead bolt. Release the handle, insert the key into the cylinder and turn it 360° towards the door keep to engage the remaining locking points, then remove the key from the cylinder.

Key Wind Doors - To unlock the door, insert the key into the cylinder and turn two full turns away from the door keep to retract the locking mechanism. These type of doors are usually fitted with a roller latch, which means the door can then be simply opened outwards/inwards (depending on the configuration). If a roller latch is not fitted, and a standard latch is used, the key will need to be turned slightly away from the door keep, to retract the latch from the keep, with the key still turned, the door can be pushed/pulled open (depending on the configuration). Do not use the key to pull/push the door open.

To lock the door, ensure the door is fully closed so the roller latch/latch engages into the keep. Insert the key and turn two full turns towards the door keep to engage the remaining locking points, then remove the key from the cylinder.

Panic Doors - To unlock the door from the inside, simply push the panic bar, which will disengage all the locking points, and maintain this motion to push the door open. Once the door is closed and the keep and lock are correctly aligned, the door will self-lock. If external access has been provided, to operate the door from the outside, operate the door as a key wind door would be operated (see above). With a panic door however, there is no need to lock the door as once the door is closed and the keep and lock are correctly aligned, the door will self-lock.

SLAVE DOOR

A slave door is part of a double set and abuts the master door. It is not used as much as the master and can be operated in a few different ways; lever operation, key wind operation, panic operation (all of which will operate in the same way as explained above) as well as finger lever operation.

When operating a double door set, the master may require opening before the slave door (depending on the configuration).

See above for guidance on operating the master door.

Finger Lever Operated Doors - Once the master door is open, to open the slave, locate the finger lever bolt operator (see illustration) which is located on the inside of the leading edge of the slave door. To disengage the slave lock, move the lever up. The door will then be unlocked and can be pushed/pulled (depending on configuration) to open.

To lock the door, ensure the door is closed correctly. Locate the finger lever bolt operator (see illustration) and move the lever down. This will throw the bolts and secure the door. On closing, the slave door should always be closed and locked before the master. The master door is then closed, depending on the operation type, as above.

FINGER LEVER



ACCESS CONTROL DOORS

There are many types of access control that can be used with the Senior Architectural Systems electronic lock.

To operate the door, activate the access control system in keeping with the recommendations of the access control provider. This will disengage all locking points allowing the door to be pushed/pulled open (depending on the configuration).

Access control doors may also have alternative means of operating the door, such as a lever handle, see above for guidance.

DOOR CLOSERS

Door may have a face mounted door closer attached. When the door is in the open position, the closer will automatically revert the door leaf to its neutral, closed position, unless a hold-open device has been installed. In this case, if the door is opened to the pre-set hold open position, the door will hold and remain open until pushed in the direction of closing. The speed of this will depend on how the door closer has been set. The closing speed can be adjusted to suit. This is not designed to hold the door open when additional loads (such as wind) are applied. The door should be closed when not in use.

GENERAL OPERATION ADVICE

Regardless of door type, the key should never be used to pull/push the door open/closed, a handle should always be used. Doors should never be slammed shut or swung open, operation should be controlled and careful. Doors should never be left open unattended and fully closed in adverse weather conditions or when not in use.

MAINTENANCE

CYLINDERS

Clean the cylinders with a moist cloth in keeping with the table overleaf. At no point should any form of cleaning agents be used. It is important not to scratch the cylinder as this will result in the warranty for the finish being void.

The internal workings of the cylinder should be lightly sprayed with a silicone spray every 3 months - degreasing sprays must not be used.

DOOR CLOSER

Safety-related components of door closers must be checked every 3 months for tightness and signs of wear. Fixing screws must be re-tightened and defective components replaced.

In addition, the following maintenance work must be carried out every 6 months or, in the case of door closers with special functions (hold-open devices and hold-open systems), the below must be carried out every 3 months:

- Grease all moving parts on the link arm. Wipe away any excess grease with a clean, dry, non-abrasive cloth.
- Check the door closer settings e.g. the closing speed and adjust if required.
- Check that the door is able to move correctly, with a suitable force. Adjust the closer to achieve this.

When surface contaminant build up is observed, the closer will need to be cleaned. Do not use any cleaning agents that contain corrosive or damaging ingredients or any abrasive cleaning products. Use a clean, dry, non-abrasive cloth.



DOOR LOCKS AND KEEPS / ACCESS CONTROL DOOR LOCKS

The following maintenance must be carried out in keeping with the table below.

All items must be checked for security of fixing and wear. Fixing screws must be tightened, and worn parts replaced where required.

All moving parts and striker plates must be checked for correct operation, lubricated using a light machine oil and cleaned with a soft damp cloth.

DOOR HINGES

DOOR HINGES (PURE® FOLD / Ali FOLD)

The following maintenance should be carried out in keeping with the table below.

The hinges should be cleaned and checked for ease of movement and, if you feel resistance when opening or closing the doors, stop and inspect the hinges for any debris or obstructions. Hinges should be wiped clean and lubricated using 3 in 1 multi-purpose oil or similar which lubricates, cleans and prevents rust.

Surfaces must be cleaned with a soft damp cloth to remove any dust or grime, taking care not to scratch the surface, in keeping with the table below.

**PURE®
FOLD / Ali FOLD**



DOOR HINGES (SPW600 TYPE 1)

The following maintenance should be carried out in keeping with the table below.

Clean all the moving parts of the hinge and all the fastenings with neutral soap and water. Only use a soft cloth.

The accumulation of contaminants on the components, when combined with water, can ruin the surface finish. As such parts may need cleaning more frequently at the first sign of contaminant build-up.

Aggressive vapours in the environment (due, e.g., to formic or acetic acid, ammonia, amine or ammonia compounds, aldehyde, phenol, tannic acid, etc.) in combination with condensation can cause corrosion of the mechanisms. When there are these aggressive vapours, it is necessary to provide sufficient ventilation to prevent this and wipe down components if condensation build up is observed.

**SPW600
TYPE 1
DOOR
HINGE**

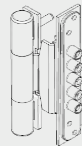


DOOR HINGES (PURE® COMMERCIAL DOOR)

Hinges should be cleaned with a soft, dry cloth in keeping with the table below.

If further cleaning is required use a mild solution of warm, soapy water on a soft cloth and dry thoroughly afterwards

**PURE®
COMMERCIAL
DOOR HINGE**



DOOR HINGES (SPW600 TYPE 2)

All pivot points must be lightly lubricated with PTFE based grease, fixings checked and wiped with a clean dry cloth in keeping with the table below.

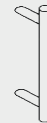


**SPW600
TYPE 2
DOOR
HINGE**

PULL HANDLES

Surfaces must be cleaned with a soft damp cloth to remove any dust or grime in keeping with the table below.

Ensure a suitable cloth is used that does not scratch the surface. Take care not to scratch the surface during use.



**PULL
HANDLE**

LEVER DOOR HANDLES

Door handles should be cleaned with a soft, dry cloth in keeping with the table below.

If further cleaning is required use a mild solution of warm, soapy water on a soft cloth and dry thoroughly afterwards.

WARRANTY

Below shows the warranty for each part:

REBATED DOOR SYSTEMS SPW600 / PURE® FOLD / AliFOLD / PURE® Commercial	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING / MAINTENANCE FREQUENCIES
DOOR LOCKS & KEEPS	10 YEARS	240 HOURS SALT TESTING	*SPRING & AUTUMN
ACCESS CONTROL DOOR LOCKS	1 YEAR	240 HOURS SALT TESTING	*SPRING & AUTUMN
LEVER DOOR HANDLES	10 YEARS	5 YEARS	*SPRING & AUTUMN
DOOR HINGES (PURE® Commercial)	1 YEAR	2 YEARS	*SPRING & AUTUMN
DOOR HINGES (Ali FOLD / PURE® FOLD)	10 YEARS	5 YEARS	EVERY 3 MONTHS
DOOR HINGES (SPW600 Type 1 & Type 2)	1 YEAR	240 HOURS SALT TESTING	*SPRING & AUTUMN
DOOR CLOSER	2.5 YEARS	2.5 YEARS	SEE ABOVE
CYLINDERS	2 YEARS	2 YEARS	MONTHLY
PULL HANDLES	10 YEARS	5 YEARS	*SPRING & AUTUMN

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.

Non - Rebated Door Systems

SD / SPW501

OPERATION

GENERAL

Non-rebated doors are available in a variety of styles and configurations. The doors are generally double action, meaning they will open both inwards or outwards, unless a stop has been installed, which will mean they are single action and will only open inwards or outwards.

SINGLE AND MASTER DOOR OPERATION

The master door is the primary door and is used as the main point of entry/exit as part of a double door set.

Hook Lock Swing Doors - To unlock the door, insert the key into the cylinder/s and turn it 360° away from the door keep, retracting the hook lock, then remove the key from the cylinder. Then simply open the door outwards/inwards (depending on the configuration).

The majority of commercial doors will have a face mounted or concealed door closers. When the door is in the open position, the closer will automatically revert the door leaf to its neutral, closed position, unless a hold-open closer is used. In this case, if this door is opened past 90°, the door will hold and remain open until pushed in the direction of closing. The speed of this will depend on how the door closer has been set. The speed can also be adjusted to suit. This is not designed to hold the door open when additional loads (such as wind) are applied. The door should be closed when not in use.

To lock the door, when the door is in the closed position, insert the key into cylinder/s and turn 360° towards the door keep, engaging the locking mechanism. Then remove the key from the cylinder/s.

Panic Doors - To unlock the door from the inside, simply push the panic bar, which will disengage all the locking points, and maintain this motion to push the door open. Once the door is closed, the door will self-lock. Some panic doors can also be fitted with rim cylinder for external access or an access control system. See "Panic Bars With Motorised Latch Retraction (MLR)" for access control systems, rim cylinder access is operated by inserting and turning the key one third of a turn (60%) to disengage the locking mechanism; the door will then be operated as normal."

SLAVE DOOR

A slave door is part of a double set and abuts the master door. It is not used as much as the master and can be operated in a few different ways; panic operation (which operates as above), finger lever operation or key wind operation.

When unlocking a double door set, the master may require opening before the slave door (depending on the configuration). See above for guidance on operating the master door.

Flush Bolt Operated Doors - Once the master door is open, to open the slave, locate the flush bolt operators (see illustration) which are located on the inside of the leading edge of the slave door – there will be one top and one bottom.

To disengage the slave lock, move the levers away from the centre of the door (top lever up, bottom lever down). The door will then be unlocked and can be pushed/pulled (depending on configuration) to open.

To lock the door, ensure the door is closed correctly. Locate the flush bolt operators (see illustration) and move the levers in the opposite direction to when opening. This will throw the bolts and secure the door. On closing, the slave door should always be closed and locked before the master. The master door is then closed and locked, depending on the operation type, as above.

Security Slave Gear - Once the master door is open, to open the slave, insert the key into the cylinder and turn it 360° away from the door keep, retracting the shoot bolts, then remove the key from the cylinder. Then simply open the door outwards/inwards (depending on the configuration).

To lock the door, when the door is in the closed position, insert the key into the cylinder and turn 360° towards the door keep, engaging the shoot bolts. Then remove the key from the cylinder. The master door is then closed and locked, depending on the operation type, as above.

The majority of commercial doors will have a face mounted or concealed door closers. When the door is in the open position, the closer will automatically revert the door leaf to its neutral, closed position, unless a hold-open closer is used. In this case, if this door is opened past 90°, the door will hold and remain open until pushed in the direction of closing. The speed of this will depend on how the door closer has been set. The speed can also be adjusted to suit. This is not designed to hold the door open when additional loads (such as wind) are applied. The door should be closed when not in use.

FLUSH
BOLT

Open/
Close



GENERAL OPERATION ADVICE

Regardless of door type, the key should never be used to pull/push the door open/closed, a handle or push pad should always be used. Doors should never be slammed shut or swung open, operation should be controlled and careful. Doors should never be left open unattended and fully closed in adverse weather conditions or when not in use.

PANIC BAR WITH MOTORISED LATCH RETRACTION (MLR)

There are many types of access control that can be used with 'Senior Architectural Systems' Panic Bar with Motorised Latch Retraction. The door can be operated in one of two ways, via the panic bar (see "Panic Doors" – this is from the inside only) or via the access control system.

To operate the door via the access control system, activate the access control system in keeping with the recommendations of the access control provider. This will disengage the panic bar locking points allowing the door to be pushed/pulled open (depending on the configuration).

MAINTENANCE

CONCEALED OVERHEAD TRANSOM CLOSERS, FACE MOUNTED TRANSOM CLOSERS & OFFSET TOP ARM SLIDE CHANNEL

The below maintenance must be carried out by a suitable person every three months.

The door should be checked to ensure it closes and aligns correctly, adjustment is achieved by changing the speed of the closing action as shown in the fitting instructions. Cycle test the door at least twenty times to check it. It should be noted that changes in external weather conditions can influence the operation of the door.

In keeping with the table on the following page, the following maintenance must be carried out by a suitable person.

Remove the door to expose the closer. Tighten all fixing screws and bolts. Inspect the bottom pivot and wipe away any debris, check the bearing rotates freely and the bolt is secured firmly. Lubricate with grease. Tighten all fixings, including the screws to the bottom rail of the door securing the pivot shoe. Replace the cover plate and remount the door. Tighten all the top arm fixings, particularly the clamp block screws and centre locking screw. Replace the name plate.
Please note; it is recommended that, when screws are removed and refitted, a suitable threadlock is used.

Maintenance records must be kept.

If doors are cycled more than 10,000 times per month, maintenance needs to be carried out every 3 months instead of what is defined in the table overleaf.

SECURITY PANIC EXIT DEVICE

The below maintenance should be carried out in keeping with the table on the following page.

Wash all of the exposed areas of Stainless Steel with a mild detergent warm water and a soft sponge followed by a clear water rinse, finally wiping dry with a soft duster or chamois leather. All moving parts and strike plates or door keeps should be kept free of dirt and debris at all times, cleaning should be increased if this is an issue.

Please ensure all fixings are tightened correctly.

DOOR LOCKS

We recommend door locks are lubricated with a degreasing spray or equivalent lubricant every 20,000 cycles or one a year.

SECURITY SLAVE GEAR

We recommend security slave gears are lubricated with a degreasing spray or equivalent lubricant in keeping with the table on the following page.

DOOR HINGES

All pivot points must be lightly lubricated with PTFE based grease, fixings checked and wiped with a clean dry cloth in keeping with the table below.

CONCEALED PANIC EXIT DEVICE

The below maintenance should be carried out in keeping with the table on the following page.

Check that the emergency exit hardware operates and the door can be opened in the correct manner. Ensure the door operates smoothly.

With the door open depress the bar or paddle handle and release, the bolts should remain retracted whilst the door is in this open position. The top bolt should clear the underside of the transom. With the door still open activate the trip mechanism, positioned at the top of the door on the closing face, the bolts should throw immediately. It is important that the catch operates correctly, especially in the case of escape doors and alarmed door which will otherwise remain ajar or unlocked.

If adjustment is necessary remove the screws securing the nylon guide block in place. Take care not to allow it to drop down inside the stile. Remove the nylon block and lubricate the steel catch until the spring and catch operate freely. If the bolt position requires height adjustment, turn the bolt head until the correct projection is achieved. Ensure the bolt retracts completely when depressing the panic bar or handle. Refit the guide block by reverse procedure. Adjustment to the bottom bolt can be carried out in the same way. Check the housing to both door stiles for the push bar type or the single housing for the push paddle type. The housings can be removed by slackening the screws with a 3mm Allen key. The active housing can be removed from the door by sliding out the connecting pin from the actuator pin. This will present the 2 No. shoulder bolts which should be secured firmly. If an outside rim cylinder has also been fitted 2 No. Screws should also be visible, check these screws are secure taking care not to over tighten.

The operating mechanism should be lubricated with a spray grease through the actuator pin slot and the housing reinstated by reverse procedure.

KEYED/RIM CYLINDERS

Clean in keeping with the table overleaf with a moist cloth. At no point should any form of cleaning agents be used. It is important not to scratch the cylinder else the warranty for the finish is not applicable.

The internal workings of the cylinder should be lightly sprayed with a silicone spray every 3 months - degreasing sprays must not be used.

FLUSH BOLTS

The below maintenance should be carried out in keeping with the table on the following page.

Wipe with a clean, dry cloth that will not scratch the surface. If build up of contaminates is seen, clean more frequent.

WARRANTY

Below shows the warranty for each part:

NON - REBATED DOOR SYSTEMS SD / SPW501	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING / MAINTENANCE FREQUENCIES
AX CLOSERS	2.5 YEARS	2.5 YEARS	*SPRING & AUTUMN
SD CLOSERS	2.5 YEARS	2.5 YEARS	EVERY 3 MONTHS
CONCEALED PANIC EXIT DEVICE	1 YEAR	1 YEAR	*SPRING & AUTUMN
SECURITY PANIC EXIT DEVICE	2.5 YEARS	2.5 YEARS	MONTHLY
DOOR LOCKS	3 YEARS	3 YEARS	SEE ABOVE (IN THE MAINTENANCE SECTION)
KEYED CYLINDERS	2 YEARS	2 YEARS	MONTHLY
RIM CYLINDERS	1 YEAR	1 YEAR	*SPRING & AUTUMN
DOOR HINGES	1 YEAR	N/A	*SPRING & AUTUMN
OFFSET TOP ARM SLIDE CHANNEL	1 YEAR	1 YEAR	EVERY 3 MONTHS
FLUSH BOLTS	1 YEAR	1 YEAR	EVERY 3 MONTHS
SECURITY SLAVE GEAR	3 YEARS	3 YEARS	EVERY 3 MONTHS

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.

Folding Sliding Door

PUR^e® FOLD / Ali FOLD

OPERATION

For Folding Sliding Door operation guidance, please refer to the End User Guidance manual, which can be obtained from our website:

- Outward Opening Folding Sliding Door End User Guidance
- Inward Opening Folding Sliding Door End User Guidance

MAINTENANCE

HINGES, GUIDES & ROLLERS

The following maintenance should be carried out in keeping with the table below.

The top and bottom tracks must be clean and free from any foreign objects or obstructions.

The doors and moving sashes should be cleaned and checked for ease of movement and, if you feel resistance when opening or closing the doors, stop and inspect the hinges and runners for any debris or obstructions.

All moving parts, hinges guides and rollers, should be wiped clean and lubricated using 3 in 1 multi-purpose oil or similar which lubricates, cleans and prevents rust. It is important that lubricant does not get on the track or is cleaned off thoroughly using a clean cloth.

DOOR LOCKS AND KEEPS

The following maintenance must be carried out in keeping with the table below.

All items must be checked for security of fixing and wear. Fixing screws must be tightened, and worn parts replaced where required.

All moving parts and striker plates must be checked for correct operation, lubricated using a light machine oil and cleaned with a soft damp cloth.

LEVER DOOR HANDLES

Door handles should be cleaned with a soft, dry cloth in keeping with the table below.

If further cleaning is required use a mild solution of warm, soapy water on a soft cloth and dry thoroughly afterwards.

CYLINDERS

Clean the cylinders with a moist cloth in keeping with the table overleaf. At no point should any form of cleaning agents be used. It is important not to scratch the cylinder as this will result in the warranty for the finish being void.

The internal workings of the cylinder should be lightly sprayed with a silicone spray every 3 months - degreasing sprays must not be used.

PULL HANDLES

Surfaces must be cleaned with a soft damp cloth to remove any dust or grime in keeping with the table below.

Ensure a suitable cloth is used that does not scratch the surface. Take care not to scratch the surface during use.



TRACK

To clean the track, use a clean cloth and a household vacuum cleaner with a narrow attachment to collect any debris, dust or grit within the track and wipe with a clean, dry, non-abrasive cloth. This needs to be checked frequently to ensure the doors are not operated when the track has debris, dust or grit within/on it.

WARRANTY

Below shows the warranty for each part:

FOLDING SLIDING DOOR PUR ^e ® FOLD / Ali FOLD	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING / MAINTENANCE FREQUENCIES
DOOR LOCKS & KEEPS	10 YEARS	240 HOURS SALT SPRAY	*SPRING & AUTUMN
LEVER DOOR HANDLES	10 YEARS	5 YEARS	*SPRING & AUTUMN
HINGES, GUIDES & ROLLERS	10 YEARS	5 YEARS	EVERY 3 MONTHS
KEYED CYLINDERS	2 YEARS	2 YEARS	MONTHLY
PULL HANDLES	10 YEARS	5 YEARS	*SPRING & AUTUMN

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.

Inline / Lift & Slide Door

PURe® SLIDE / Ali SLIDE

OPERATION

For Inline/Lift & Slide Door operation guidance please refer to the relevant End User Guidance manual, which can be obtained from our website:

- Inline Sliding End User Guidance
- Lift & Slide End User Guidance

MAINTENANCE

SLIDING DOOR LOCKING MECHANISMS

The following maintenance should be carried out in keeping with the table below.

Clean all the moving parts of the hardware and all the fastening mechanisms. Use neutral soapy water with a soft cloth only.

The accumulation of contaminants on the components, combining with water, can degrade the surface finish and therefore parts may need cleaning more frequently as soon as any sign of contaminant build up is observed.

Aggressive vapours in the environment (due, e.g., to formic or acetic acid, ammonia, amine or ammonia compounds, aldehyde, phenol, tannic acid, etc.) in combination with condensation can cause corrosion of the mechanisms. When there are these aggressive vapours, it is necessary to provide sufficient ventilation to prevent this and wipe down components if condensation is observed.

Check that the force for turning the handle is suitable, the sash lowers without any obstructions and smoothly until fully locked (only check this in the locked position) and that the sashes slide without excessive force.

If any of these are an issue, firstly check for obvious obstruction around the door and on the track (see below for track maintenance, which should be carried out if the aforementioned issues are observed) and, ensuring the track is protected, lubricate the carriages and locking points with a degreasing spray.

If lubricant does get on the track, it is important it is cleaned in keeping with the below track maintenance method immediately.

SLIDING DOOR LOCKING HANDLE

Window handles should be cleaned with a soft, dry cloth in keeping with the table below.

The accumulation of contaminants on the components, combining with water, can degrade the surface finish and therefore parts may need cleaning more frequently as soon as any sign of contaminant build up is observed.

Aggressive vapours in the environment (due, e.g., to formic or acetic acid, ammonia, amine or ammonia compounds, aldehyde, phenol, tannic acid, etc.) in combination with low condensation can cause rapid corrosion of the mechanisms. When there are these aggressive vapours, it is necessary to provide sufficient ventilation to prevent this and wipe down components if condensation build up is observed.

PULL HANDLES

Surfaces must be cleaned with a soft damp cloth to remove any dust or grime in keeping with the table below.

Ensure a suitable cloth is used that does not scratch the surface. Take care not to scratch the surface during use.



TRACK

To clean the track, use a clean cloth and a household vacuum cleaner with a narrow attachment to collect any debris, dust or grit within the track and wipe with a clean, dry, non-abrasive cloth. This needs to be checked frequently to ensure the doors are not operated when the track has debris, dust or grit within/on it.

WARRANTY

Below shows the warranty for each part:

INLINE / LIFT & SLIDE DOOR PURe® SLIDE / Ali SLIDE	MECHANICAL WARRANTY	FINISH WARRANTY	CLEANING / MAINTENANCE FREQUENCIES
SLIDING DOOR LOCKING MECHANISMS	1 YEAR	240 HOURS SALT SPRAY	*SPRING & AUTUMN
SLIDING DOOR LOCKING HANDLE	1 YEAR	240 HOURS SALT SPRAY	*SPRING & AUTUMN
PULL HANDLES	10 YEARS	5 YEARS	EVERY 3 MONTHS

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.



Curtain Wall Systems

SF52 / SF62 / SCW / SCW+

OPERATION

There are no operable elements within a curtain walling system. The curtain walling system may contain insert windows or doors, in which case the operations information, within this document, for the specific inserted system, should be referred to.

MAINTENANCE

Curtain walling system do not contain any locking gear, handles or other hardware. The curtain walling system may contain insert windows or doors, in which case the maintenance and warranty information, within this document, for the specific inserted system, should be referred to.

The frames and gaskets however will need to be maintained. Please refer to the "General Maintenance" section on page 21 for maintenance and warranty information for these aspects.

Overall General Maintenance

GASKETS

The following maintenance should be carried out in keeping with the table below.

Gaskets should be cleaned using lukewarm soapy water mixture or a 1.5% sodium bicarbonate solution. Dilute alcohol solution can be used when the surface is very dirty. Apply the solution on the product using a sponge or soft cloth; wipe the wet product with a clean, soft cloth. Other cleaning solutions should be avoided as should contact with other substances, which may damage the gaskets. Do not use any abrasive cleaning items. The colour of the gaskets may fade slightly due to exposure over the years. This is not a sign of failure and gaskets do not require replacement if fading is observed.

POWDER COATED ALUMINIUM EXTRUSION

Separate documentation, specifically covering powder coated aluminium extrusion maintenance, is available upon request. The documentation provided is specific to the powder used and therefore, it is advised that the specific powder supplier is determined, by speaking to your Technical Sales Manager, before requesting this information.

NATURAL ANODISED & ANOLOK ALUMINIUM EXTRUSION

In order to maintain the appearance, the anodised surface must be cleaned, with a solution of warm soapy water applied with a soft cloth, in keeping with the table below.

If surface contaminants are observed on the anodised surface between cleaning periods, cleaning should be carried out to maintain the aesthetic.

Materials should be protected by tape during installation. Any adhesion residue should be removed.

FIXINGS

All our fixings are Stainless Steel. Fixings must be wiped down with a soft, clean, dry, non-abrasive cloth, at the same time as associated hardware, or every 6 months, whichever is sooner. Ensure screws are thoroughly dried when cleaning hardware.

CONDENSATION

Condensation is condensed water vapour, which forms when humid air contacts a cold surface; this can accelerate chemical reactions causing or accelerating damage to certain products. Water vapour is indefinitely present in the atmosphere. The more humid the air is, the more likely condensation formation is. Humidity is easily increased; simply breathing and other general activities like boiling water, produce water vapour thus increasing the humidity of the air. Sufficient ventilation allows outside air in and inside air out, thus reducing humidity and therefore, condensation. Achieve this by opening windows or window ventilation to provide an air flow or use any mechanical ventilation available.

It is important to clean surfaces that have condensation on them with a clean, soft cloth.

It may be necessary to increase cleaning and maintenance frequency due to condensation.

WARRANTY

Below shows the warranty for each part:

GENERAL FINISHES AND ACCESSORIES	WARRANTY	CLEANING / MAINTENANCE FREQUENCIES
POWDER COATED ALUMINIUM EXTRUSION AKZO NOBEL	25 YEARS	SEE ABOVE
POWDER COATED ALUMINIUM EXTRUSION SYNTHA PULVIN	25 YEARS	SEE ABOVE
POWDER COATED ALUMINIUM EXTRUSION TIGER	15 YEARS	SEE ABOVE
ANODISED & ANOLOK ALUMINIUM EXTRUSION	40 YEARS	*SPRING & AUTUMN
GASKETS	10 YEARS	6 MONTHS

*Spring and Autumn cleaning frequencies must not exceed 6 month intervals.

General Cleaning Information

COMMON MISTAKES

Although this document should contain sufficient information to ensure correct maintenance, the following examples, which is not an exhaustive list, are examples of common issues and mistakes that should be avoided.

- Do not use high pressure hose (jet wash) or steam cleaners.
- Do not use solvent-based cleaners.
- Do not use abrasive cleaning items like steel wool, sandpaper, etc.
- Do not disturb sealants when cleaning.
- Do not use abrasive cream cleaners or bleach.
- Do not use scrapers.

More aggressive cleaning substances and methods are not a substitute for the correct method and frequency of cleaning. If grime and dirt build up is an issue, the cleaning frequency needs to be increased.



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