



# Operation and Maintenance Manual



Windows | Doors | Facades

## General Cleaning and Maintenance Instructions

Although plastic and aluminum windows and doors are resistant to environmental factors, proper maintenance is essential to ensure their functionality and longevity. Usage conditions significantly affect the condition of the Products, making regular maintenance a key requirement for warranty service.

To maintain the quality characteristics of windows and doors and ensure their long-term performance, regular cleaning and maintenance are essential:

- | Before using windows or doors, it is essential to remove all loose dirt, dust, and other contaminants from their surfaces and check the functionality of their opening, locking, and sealing systems.
- | Window and door frames must be cleaned at least once a year. It is recommended to use a soft, non-abrasive cloth or sponge with soapy water or diluted neutral (pH 6-8) cleaning agents that do not contain acetone or ammonia.
- | It is strictly forbidden to clean frame surfaces with sharp scrapers or abrasive cleaning agents, as well as to use varnish or paint solvents and thinners (such as acetone, gasoline, white spirit, etc.), cleaning products containing chlorine, acids (e.g., vinegar), or other chemical compounds that may damage the frame surface or the anti-corrosion coating of the opening mechanisms.
- | Shallow surface scratches can be minimized or polished using special cleaning and polishing agents (pastes/solvents) recommended by the window or door manufacturer.
- | Deeper scratches on the frame coating should be covered with special touch-up paints that match the frame color.
- | Windows and door glass must be cleaned at least once a year. It is recommended to clean the glass using soft, non-abrasive cloths or rubber squeegees designed for window cleaning, along with household glass cleaning products.
- | It is strictly forbidden to remove dirt from the glass using any type of scraper.

### Maintenance of Drainage Holes

- | Once a year, it is necessary to check the window and door drainage system and clean any clogged water drainage channels.

## Seal Maintenance

- | Window and door sealing gaskets must be cleaned at least once a year. They should be cleaned using a soft, non-abrasive cloth or sponge with soapy water or diluted neutral pH cleaning agents.
- | If signs of hardening appear in the sealing gaskets, it is recommended to lubricate them with a special silicone-based gasket preservation product.

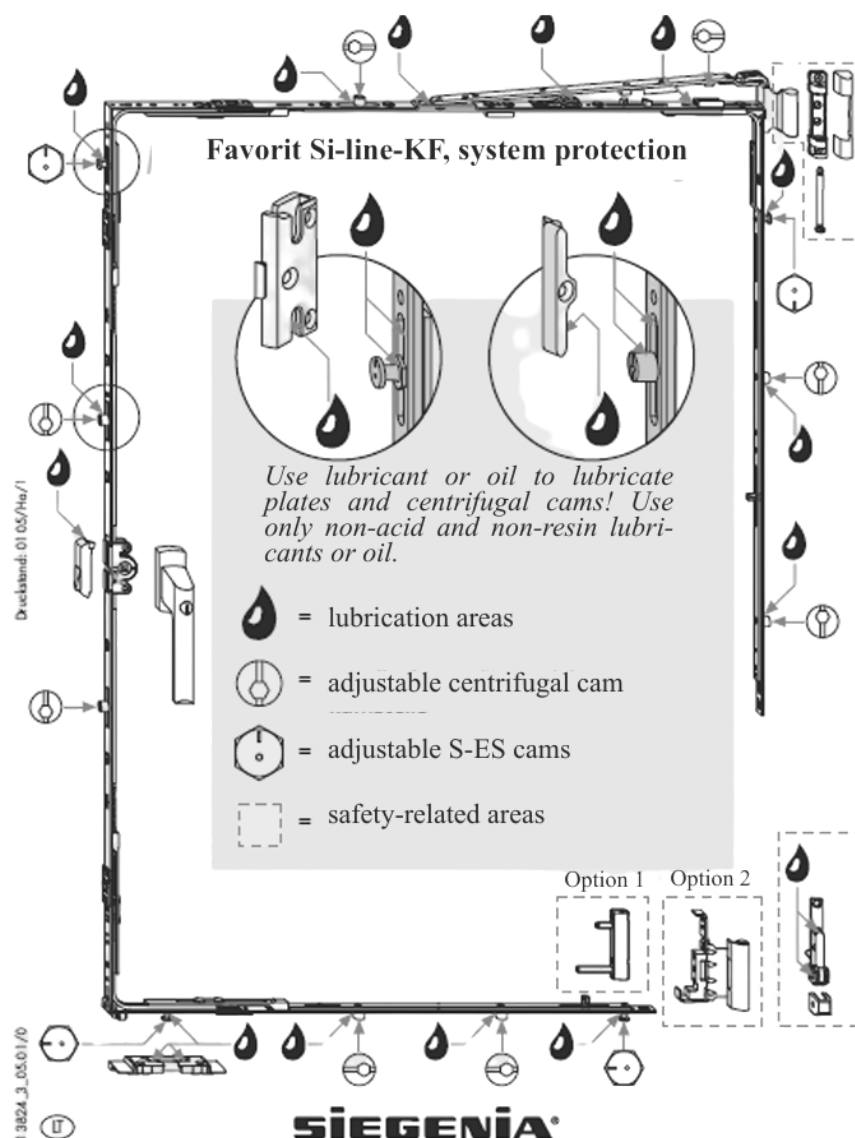
## Maintenance of Sliding and Lift-Sliding Element Tracks

- | Dirt and sand can accumulate at the bottom of sliding or folding door profiles, so it is necessary to clean the drainage channel(s) regularly—at least once a month. If needed, remove any materials blocking the drainage holes. Once a year, wipe the tracks with a cloth to remove dirt, dust, grease, and graphite.
- | A periodic technical inspection should be performed at least once a year, during which the Manufacturer or an authorized representative checks all safety-related mechanical components, such as the fastening elements of fittings (locks, latches, hooks, and door handles), and adjusts them if necessary.
- | The adjustment of mechanisms—including fittings and rollers—as well as part replacement and the installation or removal of door sashes may only be carried out by a professional window and door installation specialist.

## Maintenance of Hardware and Accessories

- | At least once a year, the window and door opening and locking mechanisms must be checked, adjusted, and lubricated (see illustration). It is recommended to use colorless spray lubricants, such as aerosol oil (e.g., WD-40 or similar products).
- | The opening and locking mechanisms of frequently used windows and doors (e.g., in schools, public institutions, etc.) should be checked, adjusted, and lubricated at least twice a year. For heavily used windows and doors, it is recommended to use a thicker lubricant (consistency class 2).

## MAINTENANCE MANUAL



■ If any malfunction in the operation of windows or doors is detected, it is essential to immediately contact the Manufacturer or an authorized representative for inspection and restoration of functionality. Since window and door mechanisms are complex, continuously improved, and must be maintained according to the recommendations of material and component suppliers, proper care is required. Additionally, appropriate measures should be taken to prevent irreversible damage to the Products.

■ It is strictly prohibited to independently adjust or modify window or door opening mechanisms, except in cases where malfunctioning windows or doors pose a risk to human health or the environment.

## Maintenance of Electrical Components

- | The maintenance of automatic sliding systems should be performed annually, preferably before winter.
- | Automatic sliding doors should not be used on evacuation routes. An alternative exit must be available. Additionally, they should not be used as fire doors.
- | Ensure that children do not play with the control button and/or remote control.
- | Before performing maintenance or repair work, the electric drive must be disconnected from the power supply.
- | Ensure that no water enters the electric drive, even during cleaning.

## Door closing mechanisms

The components of the door closing mechanism must be regularly inspected to ensure they are securely installed and functioning properly. Fastening screws must be tightened, and any damaged parts should be replaced.

Additionally, at least once a year, the following maintenance operations must be performed, depending on the type of hinged doors and their usage:

- | The door closing mechanism (e.g., closing speed) must be checked to ensure proper operation.
  - | It is necessary to check whether the doors open and close smoothly.
  - | If door closing mechanisms with special functions (such as door hold-open devices or systems) are used, their designated inspection, monitoring, and maintenance must be carried out.
  - | If the proper functioning of the door closing mechanism can no longer be ensured, it and/or any damaged parts must be replaced immediately.
- Only cleaning agents that do not contain corrosive or abrasive elements may be used.