1. Safety Instructions

1.1 General Safety Warnings

- Pinching Hazard: Never place your hands or other body parts between the frame and the sash when closing, as this may cause serious injury or crushing.
- Wind and Draft Effects: In strong winds or drafts, sashes must be closed and latched. Open sashes can slam shut or swing open suddenly, potentially damaging hardware, causing property damage, or injuring people and animals nearby.
- Sash Loading: Do not load sashes with additional weight (e.g., do not use them as hangers or ladders).
- Glass Breakage: Glass may break due to strong impacts or thermal stress (e.g., radiators too close to glass, partial shading). Sharp edges of broken glass pose a cutting hazard.
- Maintenance: At least once a year, check the stability of safety-critical hardware components and lubricate or tighten them as needed.

1.2 Sliding Doors

- Supervision During Operation: Ensure that no people or objects are in the movement area of sliding doors. Special caution is required with motorized drives, where there is a risk of finger crushing.
- Usage: Sliding doors are not suitable for use as fire doors or emergency exits.

2. User Instructions

2.1 Lift-and-Slide Doors

- Opening: Turn the handle downward to lift the sash into sliding position, then push it to the side.
- Closing: Push the sash to the closed position and turn the handle upward so the sash lowers and seals.
- Tilt-and-Slide Doors: Turn the handle to horizontal position, pull the sash toward you (parallel offset), and then move it to the side.
- Motorized Drive: Operation is via buttons or app. A short press (0.5 s) triggers full opening or closing; another press stops the movement (STOP).
- Emergency Opening: In case of power failure, certain models allow manual unlocking with a special tool/key under the cover.

3. Installation Instructions for Aluminium Sliding Doors

Purpose: This document provides general, practical instructions for proper installation of aluminium windows and aluminium sliding doors in new construction or replacement. Instructions are intended for qualified installers.

Important: Installation must comply with project details, structural requirements, building physics, and applicable regulations. If the project or technical documentation requires a different procedure, that takes precedence over these general instructions.

3.1 Safety and Responsibilities

- Handle elements (sashes, glass) as heavy loads: use appropriate grips, lifting aids, and personal protective equipment.
- When working at height, ensure fall protection and stable working platforms/steps.
- Sharp edges, metal filings, and glass: use gloves, safety glasses, and appropriate footwear.
- Do not make structural modifications (cutting load-bearing parts, widening openings, etc.) without confirmation from the designer or supervisor.
- Perform all measuring and fastening work in a way that does not damage thermal breaks, coatings, and seals.

3.2 Prerequisites Before Installation

- The opening must be finished, load-bearing, and stable; surfaces clean of dust, mortar residue, and grease stains.
- Check opening dimensions (width, height, depth), flatness, squareness (diagonals), and adequate installation gaps.
- Ensure proper drainage at parapets/thresholds (especially for sliding doors) and completed or prepared waterproofing where specified.
- Installation should take place under suitable conditions (no frost/excessive moisture, protected from rain), in accordance with material requirements.
- Store elements upright on padded supports; protect them from impacts, UV, and dirt.

3.3 General Principles of Proper Installation

- Alignment: The frame must be level, plumb, and without twist; otherwise hardware will not function properly and sealing will fail.
- Load Transfer: Transfer element weight and loads (wind, use) through load-bearing shims and properly distributed fasteners.
- Joint sealing should be executed at three functional levels: inner airtight, middle thermal/acoustic insulating, outer weather-resistant and more vapor-permeable.
- Principle: The inner layer should be more vapor-tight than the outer (so moisture does not accumulate in the joint).
- Execute the connection with facade insulation without thermal bridges; if necessary, in the insulation plane with appropriate load-bearing brackets/systems.

3.4 Element Preparation

- Inspect the element upon receipt: damage, dimension accuracy, opening direction, completeness of hardware and seals.
- Remove sashes (where appropriate) and/or protect glass from damage during installation.
- Prepare fastening points: brackets, anchors, or screws based on substrate and planned installation system.
- Before installation, apply necessary tapes/membranes for sealing (if used) to ensure continuous contact with the building structure.

3.5 ALU Sliding Door Installation

Note: Sliding doors have heavier sashes and are sensitive to threshold levelness and alignment accuracy. Even minor deviations can cause difficult sliding, leakage, or hardware failures.

3.5.1 Threshold and Base Preparation

- The threshold must be load-bearing, level, and stable along its entire length (check with straightedge and level).
- Ensure proper waterproofing and drainage (especially with low thresholds).
- Position load-bearing shims in areas of anticipated sash and glass weight transfer.

3.5.2 Frame Assembly and Positioning

- If the frame is assembled on site: verify correct joints and diagonals before lifting.
- Place the frame in the opening on a shimmed and leveled base; temporarily fix it.
- Precisely align the frame (horizontal, vertical, diagonals) and check track/rail levelness.

3.5.3 Anchoring and Stabilization

- Execute fastening according to substrate and loads; pay special attention to soffit and head areas.
- Do not deform the threshold or upper track with uneven tightening; use shims for alignment.
- After fastening, recheck track levelness and free movement before installing sashes.

3.5.4 Fixed Parts and Sliding Sash Installation

- Insert and secure fixed elements according to system; seals should be continuous and undamaged.
- Insert sliding sashes using appropriate hoists/grips; prevent impacts on frame edges.
- If specified: install guides, travel limiters, and anti-lift elements.

3.5.5 Adjustments (Travel, Seating, Locking)

- Adjust bogies/rollers so the sash glides smoothly without rubbing on threshold or upper track.
- Adjust seal seating and lock (height/lateral position) and verify even contact along the entire height.
- Check operation of handles, locks, and any multi-point latches.

3.5.6 Joint Sealing and Finishing

- Execute joint sealing according to the three-level principle (inner airtight, middle insulating, outer weather-resistant and more vapor-permeable).
- Pay special attention to the threshold: waterproofing transitions, protection against capillary moisture, and unobstructed water drainage.
- Execute interior/exterior finishes to allow for expansion and service access to hardware where needed.

3.5.7 Final Inspection

- Check sash travel along the entire length, stability in extreme positions, proper closing and sealing.
- Verify that drainage paths and channels are clear and that water does not accumulate.
- If needed, perform a functional sealing test (e.g., controlled watering of exterior) and correct any defects.

4. Care and Maintenance

4.1 General Guidelines

Before starting maintenance, follow these basic rules:

Recommended:

- Use mild and pH-neutral cleaners (pH approximately 5–8).
- Clean at surface temperatures up to 25°C maximum, never in direct sunlight.
- Always rinse the surface with water first before wiping (dust acts like sandpaper).
- Use soft microfiber cloths and non-abrasive sponges.
- Maintain hardware with lubricant as recommended by the manufacturer (acid-free oil or grease). Maintain the lock cylinder exclusively according to the cylinder manufacturer's instructions (e.g., synthetic lubricant or dedicated maintenance product).
- Always test a new cleaner on an inconspicuous area of the surface first.

Forbidden:

- Avoid polishing on matte and textured finishes, as it can permanently alter the surface appearance.
- Do not use abrasive cleaners, wire mesh, or coarse sponges.
- Do not use strongly acidic or strongly alkaline cleaners; stay within the pH range of approximately 5–8.
- Do not clean 'dry' without first rinsing with water.
- Do not use universal oil sprays in the cylinder unless explicitly designed for cylinders. Use lubricant according to the cylinder manufacturer's instructions.

4.2 Floor Track

The floor track (rail) made of stainless steel must always be clean and dry. Do not apply grease or oil to the track, as this binds sand and dust, increasing wear and impairing the sliding mechanism. Regularly vacuum the bottom profile and track with a powerful vacuum cleaner.

4.3 Mechanism

Clean guides with a damp cloth and lubricate moving mechanism parts as needed with acid-free oil (lubricant must not contain acids or resins). Do not lubricate wheels or the track surface, as lubricant attracts dust and sand.

4.4 Seals

Panoramic sliding doors have large seals that ensure airtightness. Regularly inspect and clean them to prevent debris from sticking. Once yearly, treat them appropriately to maintain flexibility.

4.5 Troubleshooting

- **Panoramic doors squeak when opening:** Clean the floor track with a vacuum to remove sand. If squeaking persists, check the rollers.