

## USER MANUAL FOR THE OPERATION, USE, AND MAINTENANCE OF PVC AND ALU CONSTRUCTIONS

### Dear Customer!

Thank you for purchasing products manufactured by our company. Modern constructions made of PVC and aluminum profiles are characterized by excellent technical and practical parameters. However, it is crucial to consider their specific technical characteristics and adhere to basic principles of use, derived from the properties of the materials used in the production of these windows.

### Proper Ventilation

Your new windows, dear Customer, feature high sealing, preventing the inflow (infiltration) of external air for ventilation purposes. As such, they can only be installed in buildings equipped with devices ensuring sufficient air inflow from the outside (Regulation of the Minister of Spatial Planning and Construction of December 14, 1994, on the technical conditions buildings should meet - Journal of Laws of 1999, No. 15, item 140). In cases where such devices are not provided in the building, ensure air inflow by:

- regularly opening windows (all tilt-and-turn windows produced by FB Szach-Mat have a micro-ventilation module);
- daily ventilation of rooms (it is recommended to open windows for 10 minutes each day);
- using window vents (1 vent per 20 m<sup>2</sup> of space), ensuring continuous air inflow with tightly closed windows.

Failure to follow these recommendations may result in phenomena such as condensation of water vapor on the inner surface of windows, excessive humidity in rooms, and even mold on walls.

### Operation and Use of Perimeter Hardware

The windows and balcony doors produced by us are equipped with high-quality perimeter hardware of the 'activPilot' Winkhaus or ROMB system. This hardware is known for its ease of use, operational comfort, reliability, and resistance to wear. The hardware mechanism is activated by manipulating the handle, and the wing is locked at multiple points around its perimeter simultaneously. In the closed position, the handle is directed downwards. The method of operating the handle during the use of the tilt-and-turn hardware with micro-ventilation ('micro-ventilation') is illustrated in Figure 1.

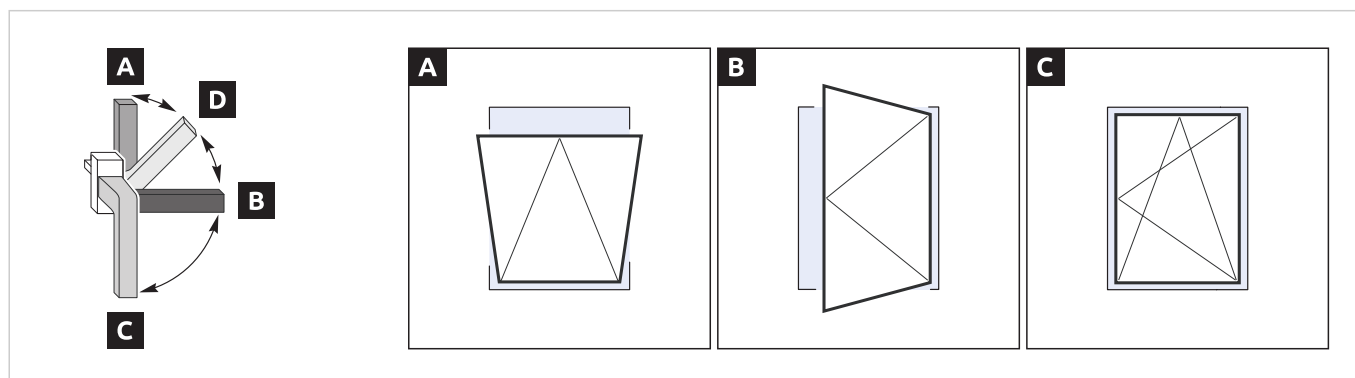


Figure 1 – A. Tilt position; B. Turn position; C. Closed position; D. Micro-ventilation position

### Operation of Additional Window Functions

Make sure to check the additional features of your windows (this information is in the description of each window in the order).

#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Zremiesłnicza 56, 83-304 Ząbże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

windows@szach-mat.eu  
+48 500 100 883

#### WWW

www.szach-mat.eu

### Balcony Catch

The balcony catch prevents open balcony doors from hitting the frame in strong winds or drafts when you are on the balcony. When exiting the balcony, simply close the door by pulling the special handle – the catch will keep the wing in the frame. The doors will reopen with a gentle external push.



### Window brake

The window brake locks the open wing in any position after turning the handle downward (rotation by 45°). This solution works excellently in windy weather, preventing the wing from hitting the frame and window recess.



### Gradual tilting

The MSL-OR mechanism allows for the regulation of ventilation intensity by choosing the degree of wing tilt. Instead of one position, you can achieve – depending on the weather or household needs – 4 or 6 options for wing positioning. The MSL-OR mechanism additionally secures the tilted wing from accidentally slamming shut. This solution is particularly useful in rooms such as the kitchen, bathroom, or bedroom.



#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Rzemieślnicza 56, 83-304 Ząbże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

windows@szach-mat.eu  
+48 500 100 883

#### WWW

www.szach-mat.eu

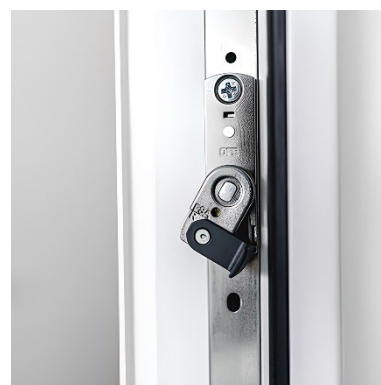
### FSV Window Lock

The FSV window lock, located at the bottom of the wing, secures the window from being opened by unauthorized persons (e.g., small children). It also provides additional protection for the window in the tilted position.



### Incorrect Handle Position Lock

This mechanism enforces the correct operation of the window, preventing the opening of the wing when the window is open. This prevents the wing from "unhooking" from the top hinge. In the version with a lifter, it also lifts the wing and ensures smooth transition from the open to the closed position. This solution is highly recommended for large-sized windows.



### Window Opening Limiter

By limiting the wing opening to a 90° angle, it protects it from hitting the window recess in strong winds. It eliminates the risk of the open wing hitting the frame or the window recess edge in strong winds.



#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Rzemieślnicza 56, 83-304 Załęże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

windows@szach-mat.eu  
+48 500 100 883

#### WWW

www.szach-mat.eu

### Hoppe KISI Lock

The Hoppe KISI lock prevents handle movements, serving as protection against accidental window opening by a small child. To change the handle position, press both buttons on the lock simultaneously.



### Cleaning Window Frames

Light dirt on the surface of the window frames should be removed with water and mild detergent or washing agents. In case of stubborn and hard-to-remove dirt, the use of gentle abrasive and polishing agents is permissible. Under no circumstances should cleaning agents causing scratches, abrasive powders, scrub brushes, or chemically aggressive cleaning agents be used on the window frame surface. The window frame surface does not require maintenance. Do not paint the windows with any types of paints or varnishes, nor apply any additional protective coatings. Avoid contact between the window frame surface and hot objects (e.g., irons, heaters, stoves, etc.), as well as sharp objects such as screwdrivers, spatulas, etc., which may cause damage (scratching).

### Seal Maintenance

Flexible gasket seals used in balcony windows and doors are made of EPDM – a material resistant to aging and atmospheric conditions, therefore, they do not require maintenance. In case of damage, they can be easily replaced.

### Cleaning Insulated Glass Units

Windows are equipped with insulated glass units in the form of hermetically sealed single- or double-chamber glass packages. Cleaning the glass is limited to washing the two outer surfaces of the glass package. General glass cleaning agents can be used for cleaning insulated glass. Do not use pastes and abrasive chemicals. Do not scrape off contaminants with sharp tools. Heavily soiled windows should be pre-soaked with water and a cleaning agent, then wiped with a clean, soft cloth.

### Cleaning and Maintenance of Fittings

The proper functioning of the fitting mechanism depends on adhering to the guidelines for installation and adjustment, as well as cleaning and maintenance. Maintenance involves periodic inspection of fitting elements and lubrication of moving parts. Annual lubrication of essential fitting elements on the sash and frame (especially moving elements and contact points – see the diagram next to it) will ensure smooth operation of the fittings and prevent premature wear. (NOTE! Use lubricant or machine oil without resins and acids, e.g., WD-40). Fitting elements should be regularly checked for secure fastening and wear. If necessary, tighten the mounting screws, and in case of fitting damage, replace the faulty element. It is recommended to entrust maintenance and repair work, i.e., replacing worn or damaged fitting elements, to the manufacturer's service. The need for fitting adjustment may arise some time after window installation.

#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Rzemieślnicza 56, 83-304 Załęże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

windows@szach-mat.eu  
+48 500 100 883

#### WWW

www.szach-mat.eu

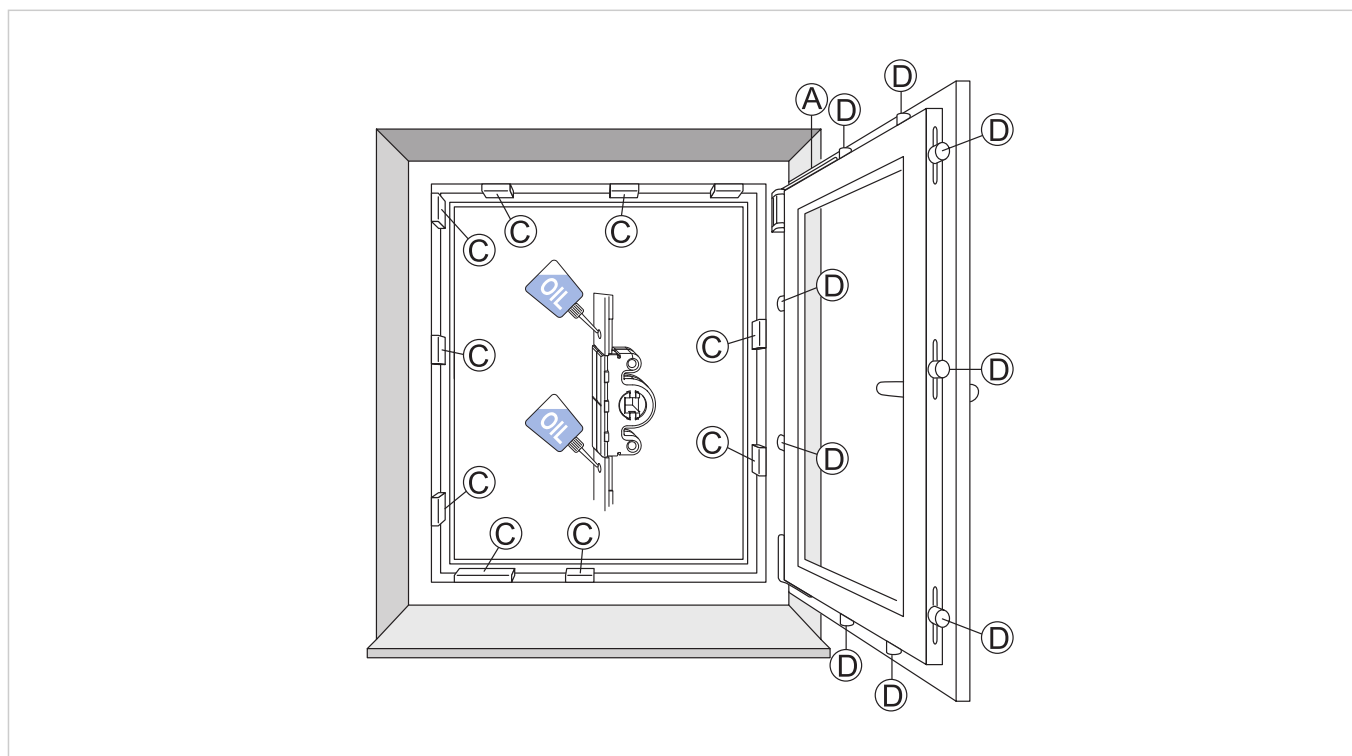


Figure 2 – Points A, C, D = lubrication points crucial for proper fitting operation

### Fitting Adjustment

After some time of window usage, the fittings may require adjustment. The adjustment service can be done independently or entrusted to an authorized Szach-Mat service team.

#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Rzemieślnicza 56, 83-304 Załęże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

windows@szach-mat.eu  
+48 500 100 883

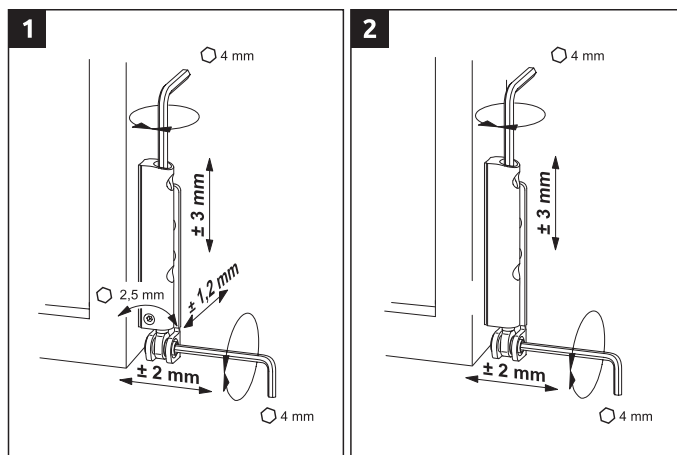
#### WWW

www.szach-mat.eu

### Frame Hinge / Sash Hinge

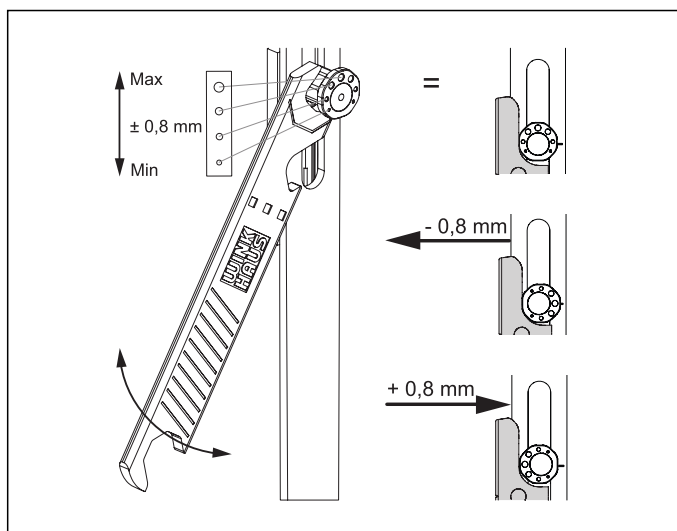
Adjustment of height (+/- 3 mm) and lateral adjustment of the sash (+/- 2 mm).  
Additional adjustment of the sash compression to the frame on the sash hinge FL.KA (+/- 1,2 mm).

- 1 – With compression adjustment
- 2 – Without compression adjustment



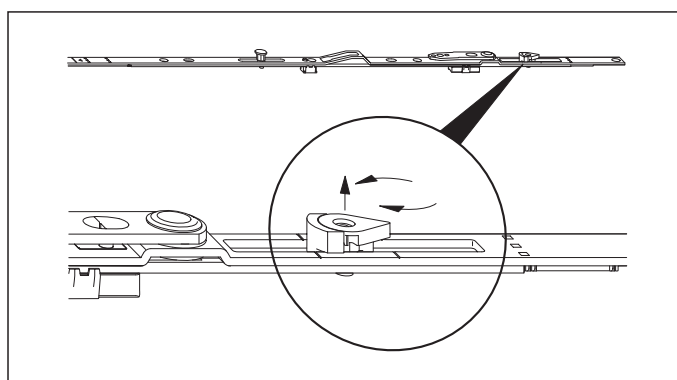
### Octagonal cam

Adjustment of the sash compression to the frame by turning the octagonal cam (+/- 0,8 mm).



### Assisted closing of the sash from the tilt position

In the middle position of the striker on the espagnolette arm, the espagnolette pull-in is 18 mm. Rotating the striker (towards the striker plate) allows increasing the espagnolette pull-in to 25 mm.



#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Rzemieślnicza 56, 83-304 Ząbże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

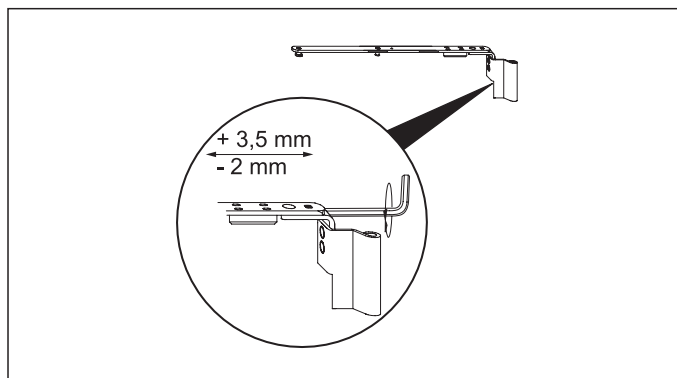
windows@szach-mat.eu  
+48 500 100 883

#### WWW

www.szach-mat.eu

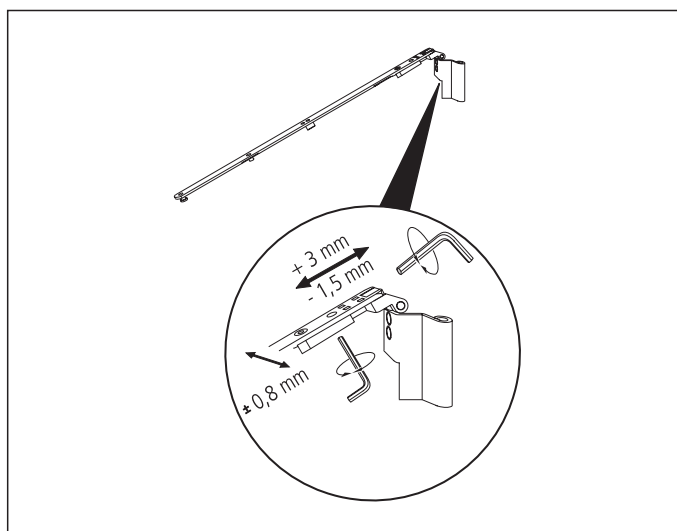
### Espagnolette – rectangular window

Lateral adjustment on the espagnolette (-2 mm towards the hinge, +3,5 mm towards the striker).



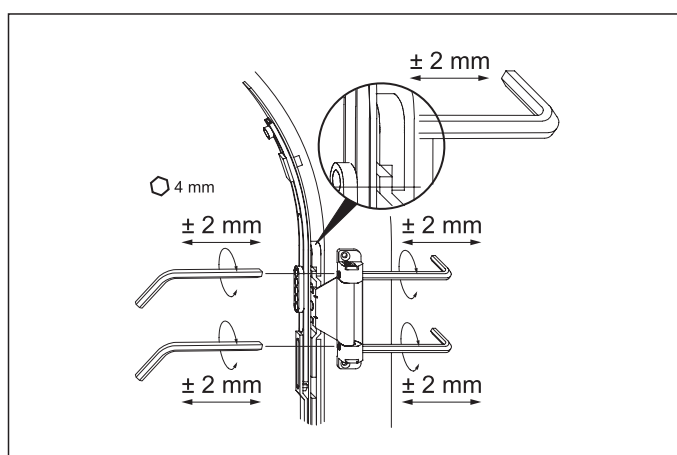
### Espagnolette – trapezoidal window

Lateral adjustment on the espagnolette.



### Espagnolette – arched window

Lateral adjustment on the espagnolette.



#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Rzemieślnicza 56, 83-304 Załęże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

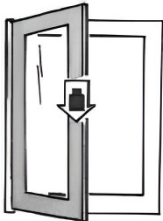
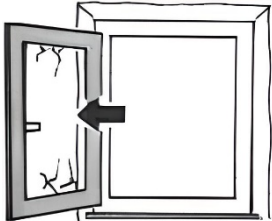
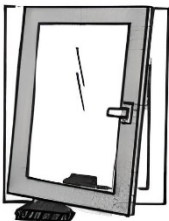

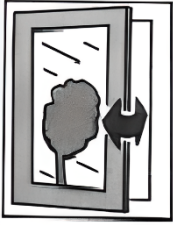

windows@szach-mat.eu  
+48 500 100 883

#### WWW

www.szach-mat.eu

Highest quality materials and precision in manufacturing guarantee long-lasting reliable operation and user comfort of the windows. The fundamental principles of window use, adherence to which determines the maintenance of efficiency and reliability of the products during prolonged use, as well as ensuring complete safety during operation, are provided in the drawings below.

### Basic principles regarding the safety of using windows

 <p>Do not exert any loads on the window sash</p>	 <p>Do not strike the sash against the frame</p>	 <p>Do not insert any objects between the sash and the frame</p>
 <p>Windows accessible to children should be secured against unintended opening (e.g., using a key-lock handle)</p>	 <p>Do not leave the window in an open position during windy weather</p>	 <p>When closing the window, do not insert your hand between the sash and the frame</p>

#### Address

**Office and headquarters** ul. Kartuska 354AA, 80-125 Gdańsk, Poland  
**Factory** ul. Rzemieślnicza 56, 83-304 Ząbże, Poland

#### Company

Firma Budowlana „Szach-Mat” Robert Szachnowski  
**NIP:** 597 14 00 696 | **REGON:** 193098450

#### Contact

windows@szach-mat.eu  
+48 500 100 883

#### WWW

www.szach-mat.eu