

Operational and maintenance instructions for PVC windows

The operational and maintenance instructions are intended to ensure the correct use of SeiCom OÜ products. In addition to the instructions, please read the warranty conditions. If you have any problems using the windows, please contact SeiCom OÜ immediately (see contacts at the end of this manual).

1. Cleaning the window after installation

Windows must be cleaned immediately after installation. Carefully remove all dirt using water and a sponge. A vacuum cleaner or plastic spatula can be used to remove loose dirt. The protective film must be removed from the window profiles immediately after installation.

Important information!

The window must remain closed for 24 hours after installation. During construction and finishing work, the window must also be in the closed position and protected from possible contamination to ensure that the moving parts of the window remain clean.

2. Opening and closing the window

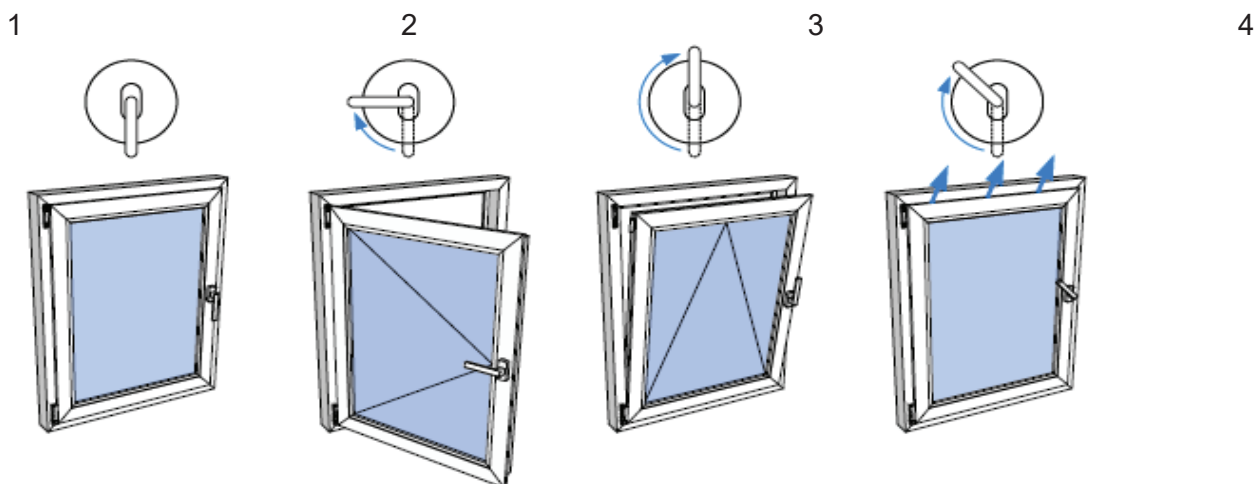
The window handle has four positions:

1 – the window is closed (the handle in vertical, downward facing)

2 – the window is open (the handle in horizontal)

3 – the window is open (tilted from above) in the ventilation position (the handle is vertical, upward facing)

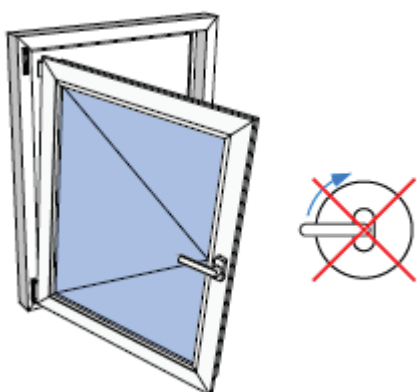
4 – the window is in the micro-ventilation position (the handle is turned 45 degrees upwards from the open position)



It is forbidden to change the position of the handle when the window is open (Figure 5)

The position should only be changed when the window is closed. Avoid changing the position of the window if the window is already in the open position. If you open the window sideways (Fig. 2), but the window handle is set to the ventilation position (Fig. 3), carefully push the window back into the hinge slot and turn the handle to the open or horizontal position (Fig. 2).

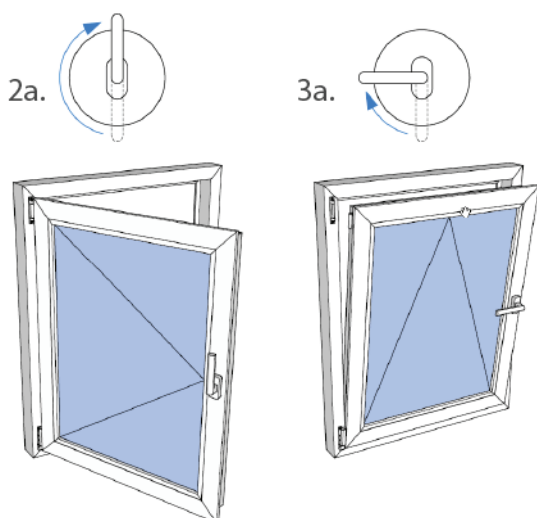
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Specifications for the TBT lock:

2a. – the window is open (the handle is vertical, upward facing)

3a. – the window is open (tilted from above) in the ventilation position (the handle is horizontal)

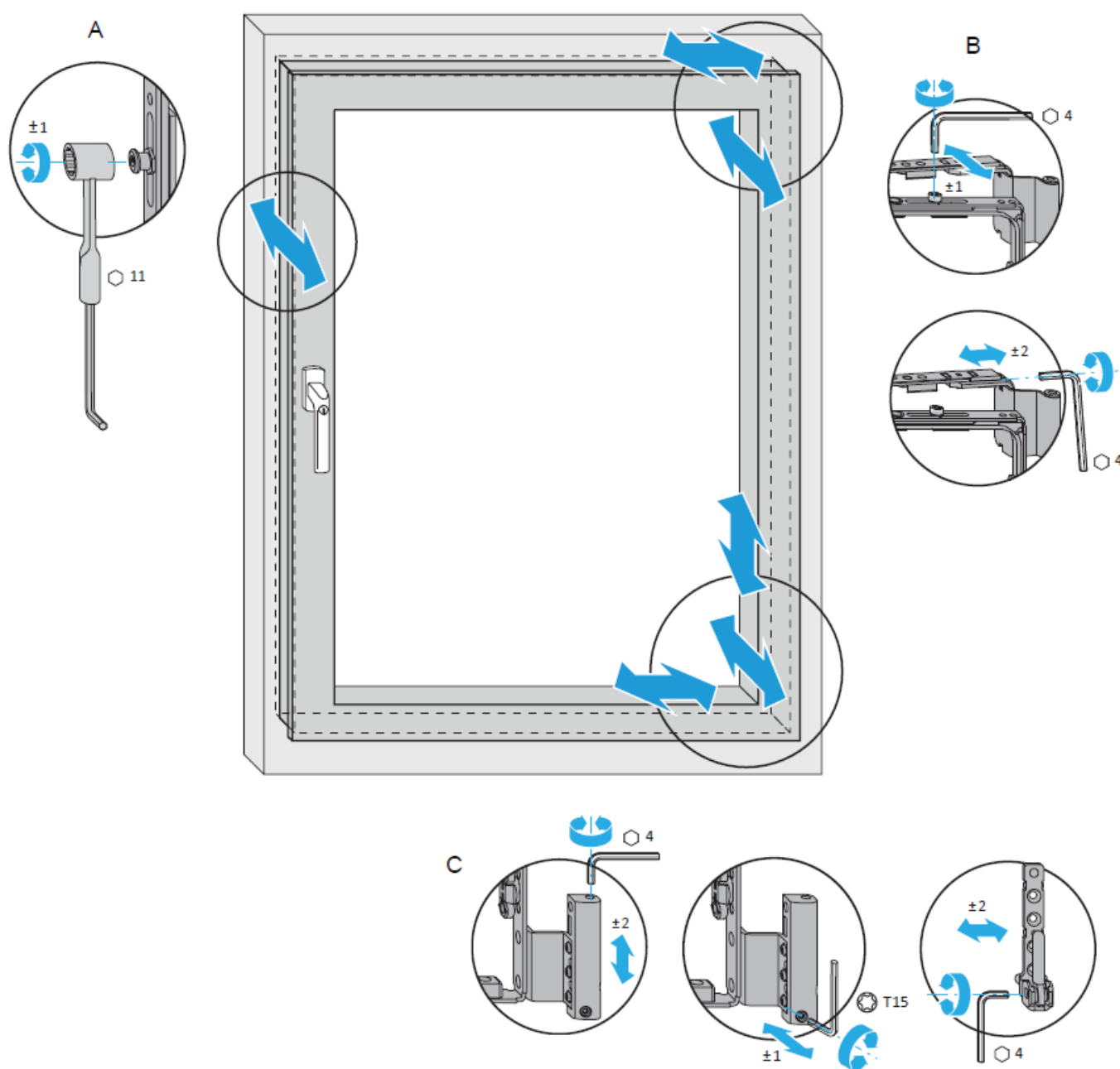


3. Maintenance

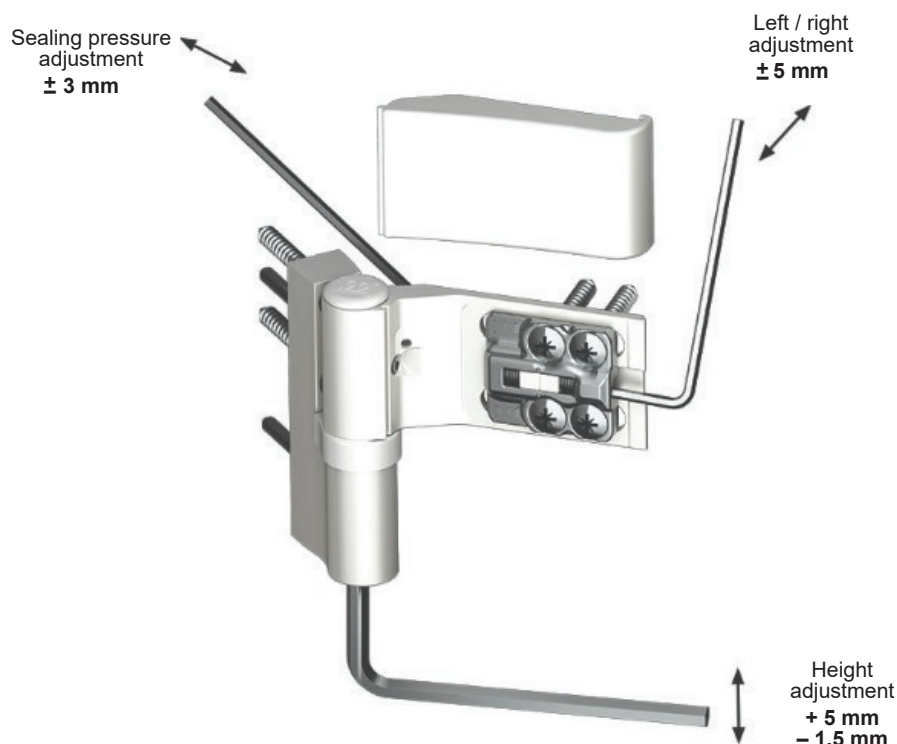
To achieve a long service life and good performance, windows need maintenance at least once a year: they must be washed, fittings shutters and other moving parts have to be cleaned and lubricated, and window frames and fittings must be adjusted (in the case of coloured frames, twice a year, in autumn and spring).

If the product is installed by SeiCom OÜ, the initial adjustment is made by the manufacturer before handing it over and one more at the end of the warranty period. During the warranty period, regular adjustments are allowed to be done by product owner or by the company of owner's choice. After the warranty period, adjustments may be made by the owner or a company of his/her choice.

Adjustment guide (window)



Adjustment guide (door)



Cleaning the glass

You can use either a glass cleaner or warm soapy water to clean the window glass. Acetone can be used to remove glue, paint, etc., but care must be taken that it does not get on the profile.

Cleaning the profile

PVC windows generally require little maintenance. You can use either a glass cleaner or warm soapy water to clean the window.

Fitting maintenance

The following tips should be considered when servicing fittings and other moving parts:

- it is advisable to lubricate all moving parts with lubricating oil at least once a year
- only substances with a neutral pH and which do not damage the anti-corrosion coating of the seals may be used for cleaning

Seal maintenance

At least once a year, (e.g. in the autumn), all window seals must be lubricated to ensure flexibility and better performance. Only substances intended for this purpose (e.g. silicone oil, petroleum jelly, etc.) may be used.

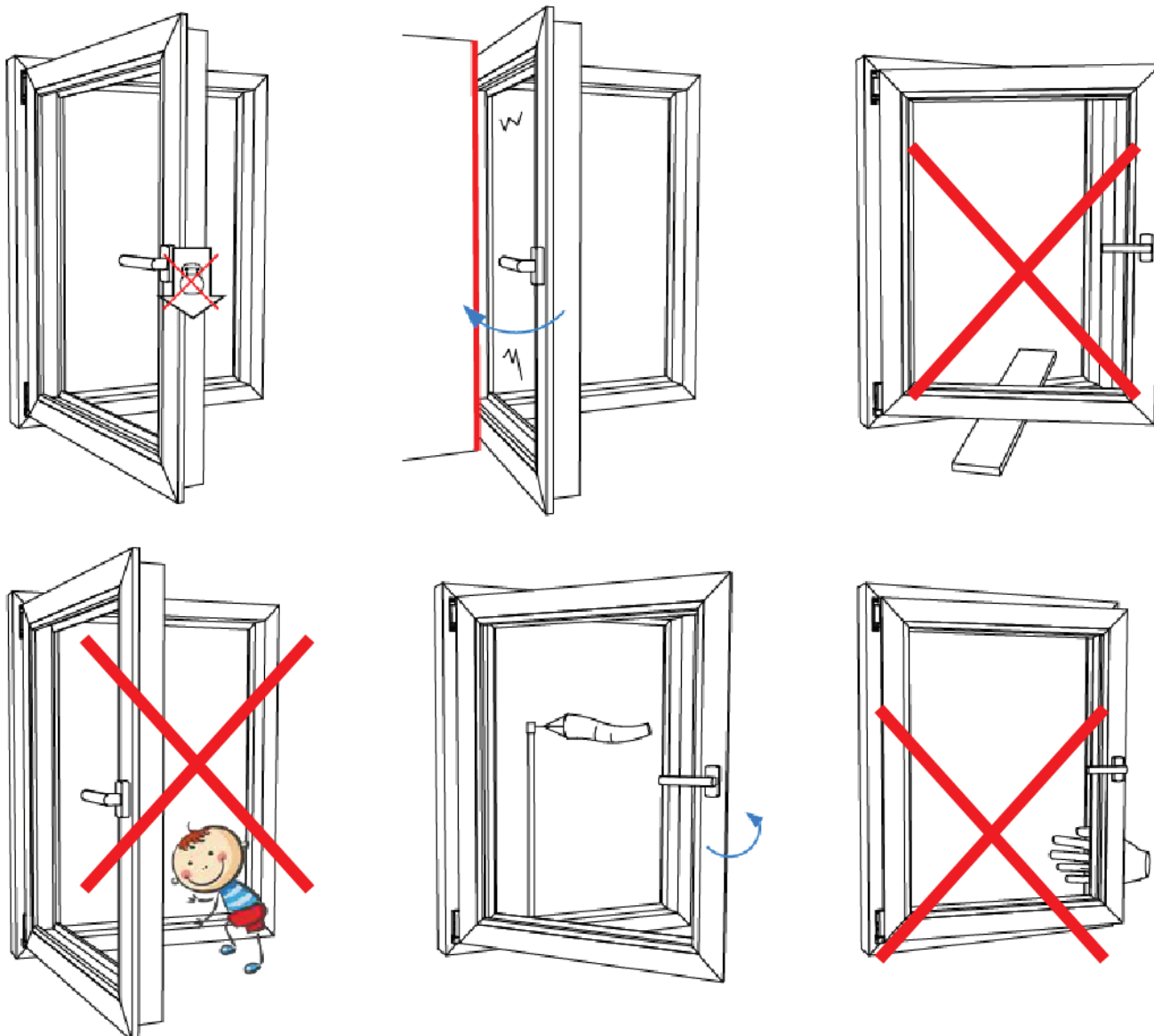
Important information!

It is forbidden to use for cleaning:

- sharp objects (e.g. metal squeegees, steel brushes, etc.) that can damage the window surface
- abrasive cleaners or solvents that may react with and damage the PVC surface

4. Instructions to ensure the durability of the window

- no additional weight may be suspended from the window frames
- the window frames must not be twisted or pushed further than they open in the normal manner
- no objects may be placed between the window frame and jamb
- it is recommended to use window restrictors to ensure the safety of children
- windows must not be left open during strong winds or storms



5. Other possible problems

The outer surface of the glass becomes foggy

It is generally not possible to prevent the outer surface of the glass from fogging. This phenomenon is not dangerous for the window and usually lasts for a short time. Fogging of the outer surface of the glass is most common during spring and autumn when the humidity of the outside air is the highest. The outer surface of the glass becomes fogged because the outside air temperature exceeds that of the outer surface of the glass. As modern windows are very heat insulating, the heat inside does not pass through the glass and therefore cannot keep the outside of the glass dry.

It can be noted that the occasional fogging on the outer surface of the glass is a sign of good thermal insulation of the window and indicates that the window is modern and high-quality.

The inner surface of the glass becomes foggy

The fogging of the indoor side of the glass is probably due to the high humidity in the room and insufficient ventilation of the glass. The rooms must be adequately ventilated and the air valves must be open. If the building has forced ventilation, make sure that the ratio of supply and extract air is correctly regulated. The extract air should be adjusted so that there is a slight negative pressure in the room. In addition, check that furniture, curtains, or other objects do not obstruct the air flow in front of the window.

Fogging of the indoor surface of the glass is most common during winter when the difference between the indoor and outdoor temperatures is greatest. If the outside temperature drops very low in winter, the humidity on the edges of the window may even freeze.

Glass breakage

Glass breakage is caused by either a mechanical factor or a thermal condition. Consequently, glass breakage is not covered by the product warranty. See the warranty conditions for details.

The glass used in the manufacture of the window unit can withstand large temperature fluctuations. However, when the glass heats up and cools in the same place, sudden temperature fluctuations in the glass can cause internal stresses, which can make the glass break. This phenomenon is called thermal stress breakage.

Thermal stress breakage occurs when the temperature difference on the glass surface is greater than about 40 degrees. The magnitude of the thermal stress depends, on the one hand, on the temperature differences between the cold and the warm parts of the glass and, on the other hand, on the temperature distribution inside the glass. It is usually manufactured so that the window profile covers the edges of the glass. The surface of the uncovered glass remains exposed to heat radiation and thus absorbs it. During this process, the temperature of the glass rises and the heat is dissipated along the glass. The edges of the glass, which are protected from heat radiation, stay cooler. The spread of different temperatures in the glass causes thermal stress at the edges of the glass, and if it exceeds the breaking resistance of the glass, thermal breakage occurs.

The following factors increase the risk of thermal stress breakage:

- **intense solar radiation:** the intensity of heat radiation to glass is determined by the geographical location of the building, season, cloud cover, air pollution, and the reflection from the ground or adjacent buildings.
- **high absorption and heat radiation from solar energy:** The most important thermal stress-generating property of glass is its absorbency. The higher the heat absorption of the glass (this is the highest for mass-painted glass), the higher the temperature of the glass and consequently, the thermal stress in the glass.
- **the environment or materials of the space behind the glass:** no matter how the heat is reflected from the interior back to the glass surface, it is still partially absorbed by the glass. This is especially true when there is some insulation near the glass (e.g. a shaded ceiling or a heat pipes) and when the air movement is insufficient.
- **external concealment:** partial and prolonged shadows on the glass can cause large temperature differences in the glass. Thermal stresses occur in the glass when the glass is partially shaded from the sun by other buildings or in other ways (houses, curtains, balconies, window sills, etc.).
- **internal concealment:** some window coverings and interior shadows may affect the air movement over the glass. There is no natural convection to cool the glass. If the surface of the glass is partially covered, the temperature may be different in the covered and uncovered parts of the glass and thus create stress.
- **internal heating sources:** heat-emitting elements or convection heaters can cause large temperature differences at different points on the surface of the glass, especially if the radiation is directed straight at the glass.
- **solar control films:** adding films to windows increases the absorption of solar energy in the glass and thus the thermal stress. When using film, it is advisable to temper the glass beforehand, which will help reduce the risk of breakage.

The following factors must be taken into account to prevent possible thermal stress breakage of the glass:

- posters, films, advertisements, etc. may not be affixed to the indoor or outdoor side of the glass, as this will impede the movement of air.
- it is not recommended to install slat blinds or other coverings on window frames if the blinds or coverings are very close to the glass, as they prevent the air from moving on the glass surface, which may result in thermal stress breakage.

If any problems occur using the windows, please contact SeiCom OÜ immediately via the email address paigaldus@seicom.ee