

Lazarevo Selo, Niska Banja, Serbia Tel. + 38118/4542 902: 4542 407 WWW.SMAJ.CO.RS

Window and door operation, maintenance and servicing manual

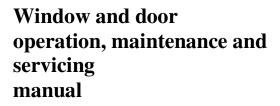
Dear customer,

Congratulations on your purchase of new windows and thank you for your trust. To make you satisfied with your new product, we have developed for you an operation, maintenance and servicing manual. Just as your car, your window too needs servicing and maintenance to make you happy with it.

You will easily perform these steps on your own with the help of our manual. If you need more information, we are at your disposal. You can contact us by phone or e-mail.

We want you to be happy with your new windows and doors.

Best regards Smaj Produkt





To ensure the long-term use of your Smaj windows and doors and to avoid property damage, professional cleaning and maintenance and compliance with the rules contained in this manual are a must. Should you fail to follow these rules, we are not responsible for possible damage, and your carpentry warranty will be void. Damage due to improper use and repair attempted by unqualified persons is also not covered by the warranty.

Only proper installation ensures the functional suitability of the elements and avoids damage to the structure.

1. Recommendations for installation

• Element protection

Ensure adequate protection during construction works to prevent windows from being damaged.

During the construction period, different mechanical, weather and chemical loads act on the windows and doors. Concrete, lime, cement, mounting foam and other aggressive materials can discolor, damage surfaces and impair the function of the product itself. Protect your carpentry from dust by covering with boxes or foils and provide sufficient ventilation to remove excess moisture. Protect your wood and wood/aluminum elements from moisture, rain and snow during the construction phase until the building is completed.

Avoid creating too high humidity in the room (max. 55% at 20 $^{\circ}$ C).

This leads to permanent damage such as swelling of wooden surfaces, damage to corner joints, wood deformation, hardware corrosion, as well as unhealthy living environment. All damage caused during construction is not covered by the warranty.





• Tape with suitable adhesive tape

When taping to protect your windows during construction, use only adhesive tape suitable for windows painted with water-based paint (for example, UV protection tape Tesa 4438 or 4838, which can stay taped up to 10 days).

Prior to taping, check the adhesive tape suitability in an inconspicuous stop (storing the adhesive tape may lead to its unsuitability). Smaj is not responsible for damage caused by adhesive tape.

Glass cleaning

Be careful not to damage the glass surface.

Remove stickers and clean dirt no later than 3 months after installation; otherwise the surface may be sensitive to solar radiation intensity.

Do not concentrate cleaning agents on frame parts, silicone or glass gaskets.

Note:

Conventional glass does not meet any requirements regarding increased risk of breakage, burglary protection and fire protection. Conventional glass can be easily broken, leaving a risk of injury. Uneven effects of temperature and heat accumulation can lead to spontaneous glass breakage.

Therefore, always keep a distance of at least 20 cm between objects in the room (furniture, curtains, plants) and glass (outside and inside). Also, at least a 30cm distance should be kept between the heating source and the insulating glass. With tempered glass, this distance can be reduced to no less than 15 cm.

• Silicone cleaning

Silicone is completely hardened after 3-4 weeks. Clean the windows with plenty of water (mild detergent), without pressure so as not to damage the silicone. Do not use alcohol, abrasive or thinner-based products.

• Cleaning wooden surfaces

Clean wooden surfaces carefully to avoid damage.

Check for damaged areas. Repair damaged areas (following the instructions) or call an expert. Use only mild cleaners such as highly diluted detergent and soapy water to clean wooden surfaces.

• Phase of high water evaporation

During the water evaporation phase, it is necessary to prevent high humidity, which can be done by adequate ventilation and aeration of the premises.

Otherwise, it is necessary to provide an efficient drying device.

In conditions of high humidity, ventilation should be permanent to prevent glass condensation. Any condensation that occurs must be completely wiped off several times a day.

Especially if the windows are installed in the cold season, ventilate immediately and continuously to reduce the risk of damage by moisture.

If the customer does not follow the rules and condensation occurs, there is no guarantee.

"Proper ventilation" = healthier life and savings on heating. Follow these tips to prevent condensation, keep the walls of your living space dry, and prevent stains from mold, moisture, etc.

- In the morning, ventilate your rooms for approximately 20 to 30 minutes!
- Ventilate room, no matter how you use them, 3 to 4 times a day for 15 minutes!.
- Since a titled window is not enough for ventilation, open the window all the way but turn off the heating!

• If ventilation with window opening is not possible due to noise protection or safety, you must contact a specialized company and get information as to which system provides good ventilation under these conditions.

With today's living habits, ventilation with window opening is often not possible, which is why modern houses have good thermal insulation. In both cases, it is necessary to contact the designer to create an energy-saving solution with a controlled ventilation device.

Especially if windows or doors are installed in the cold season, ventilate immediately and continuously to reduce the risk of damage by moisture.

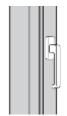
Damage caused by condensation is not covered by warranty.



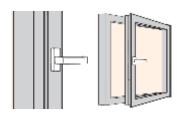
"SMAJ PRODUKT "d.o.o.
Manufacturing, Trade and Services
Company
Lazarevo selo Niska Banja
Tel.018/4542-902,;4542-407
WWW.SMAJ.CO.RS
TIN 103659349 Reg.no.17618768

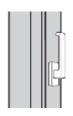
2. Instructions for use

The following are instructions for proper and safe use of windows and doors.











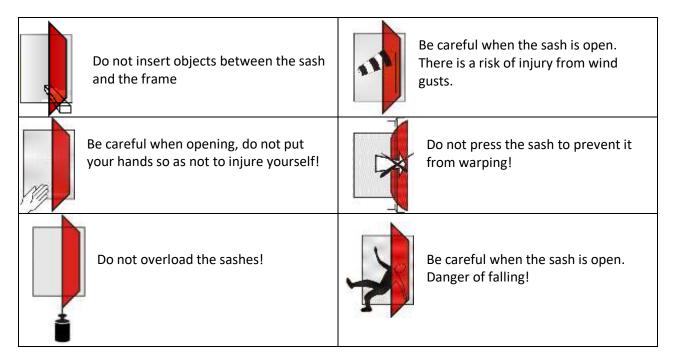
Closed position

Open position

Tilted sash



Please pay attention to the following sources of danger !!!



2.1. Handling of tilt and turn elements

Smaj tilt and turn elements are equipped with adequate hardware that prevents the sash from bending, which makes it difficult to handle the sash incorrectly. If there is still a handling error, please follow the instructions below:

If the sash lock is inadvertently pressed while the sash is open and the window handle is pressed, the sash is released from the upper lock. To fix this, follow these steps:

- 1. Press the sash against the frame at the top of the hinges
- 2. Operate the unsafe part with the other hand
- 3. Close the sash so that you can easily hold the safety switch with your fingers (caution! Close it carefully so that your fingers do not get caught) and return the window handle to the turn position (turn 90°).
- 4. Then close the window and return the window handle to the closed position (turn 90 $^{\circ}$). It can now be easily tilted and the window can be closed again.

2.2. External connection

The weather stripping between the window/door and the building must be rainproof. It must be done within two months after installation, so that rainwater does not cause damage to the window/door or structure.



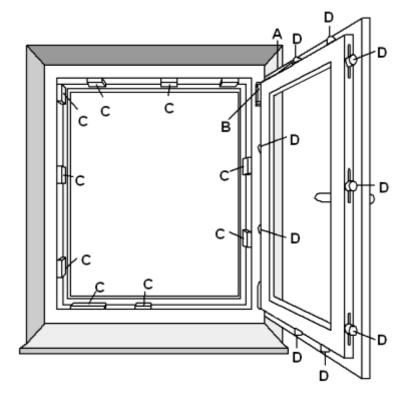
"SMAJ PRODUKT "d.o.o. Manufacturing, Trade and Services Company Lazarevo selo Niska Banja Tel.018/4542-902,;4542-407 WWW.SMAJ.CO.RS TIN 103659349 Reg.no.17618768

3. Opening care

Your windows and doors are equipped with high-quality tilt-and-turn opening hardware. You should regularly check if they are damaged or fixed because they can affect safety. In order to for them to work well and reliably, they need to be adjusted once a year. Check for fastening the fittings important for the safety and operation of the windows. If necessary, tighten the screws, if not, call an expert to change the defective parts.

<u>Position: A, C, D</u> Important for the smooth window operation

<u>Position: B</u> Important for safety

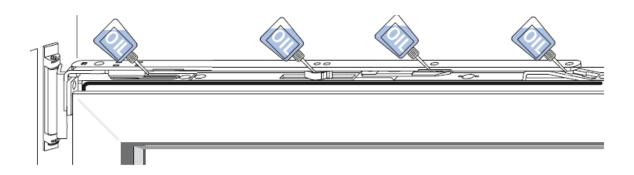


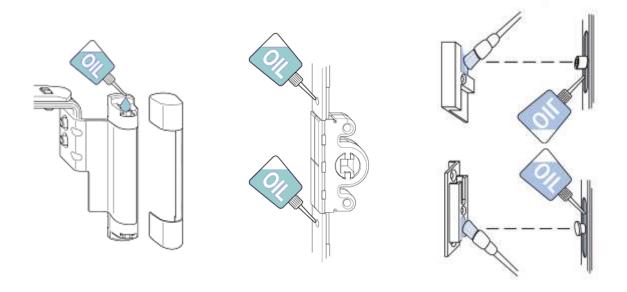


"SMAJ PRODUKT "d.o.o. Manufacturing, Trade and Services Company Lazarevo selo Niska Banja Tel.018/4542-902,;4542-407 WWW.SMAJ.CO.RS TIN 103659349 Reg.no.17618768

Moving parts (hinges), when difficult to close, must be lubricated (use commercially available oil

 e.g. WD-40 - silicone-free).







"SMAJ PRODUKT "d.o.o. Manufacturing, Trade and Services Company Lazarevo selo Niska Banja Tel.018/4542-902,;4542-407 WWW.SMAJ.CO.RS TIN 103659349 Reg.no.17618768

4. Care and maintenance of wooden surfaces

How to properly care for the surface?

• Surface cleaning

The exterior and interior window surfaces are cleaned with plenty of water and a mild detergent such as a universal cleaner (we recommend that you do not use chemicals). To prevent irreversible damage, do not use cleaning and polishing agents, stone wool, etc.

Do not use strong detergents for cleaning rebates and wooden surfaces, but only mild cleaning agents without aggressive ingredients (alcohol, ammonia, abrasives), which will not corrode the surface.

Wooden surfaces on the inside do not require further maintenance other than cleaning. The following instructions must be followed for wooden surfaces on the outside:

- 4.1. **Impregnated wooden surfaces** These wooden surfaces are not yet ready for outdoor use, they are delivered without sanding and are therefore slightly rough. To achieve protection from sunlight and weathering, immediately after installation sand and coat surfaces with appropriate paints to prevent weathering damage, gray color, fungal infections that destroy wood. Particular care must be taken not to expose the elements to excessive moisture during construction works.
- 4.2. **Glazed or opaque wooden surfaces** To clean these wooden surfaces, use only mild cleaning agents without aggressive ingredients (alcohol, ammonia, abrasives) and soft cloths. Worn surface must be checked and appropriate maintenance measures taken:
- Damage to the surface (e.g. hailstone) must be filled in immediately by double coating with a water-soluble thick glaze layer.
- If the surface gloss is significantly reduced, and weather influences and damage are not visible, a maintenance coating is necessary: clean the window, clean the entire outer surface with 200g sandpaper. Attention: clean the edges carefully. Clean the dust with a soft cloth. Coat the entire surface once with a water-soluble glaze layer.
- Open joints at the frame joints must be closed immediately with suitable seals.
- If cracks or flakes are visible on the element surface, the maintenance coating was not applied on time. In that case, remove dust and dirt, loose layers of sand and gray wood, all the way to a sound surface with 120g sandpaper.

4.3. **Oiled and hand-lubricated wooden surfaces** Oiled and hand-lubricated surface is not thick-layer glaze, does not meet the requirements for finished surfaces according to ONORM B 3803 and therefore must be treated 1-2 times a year with colorless wood oil, depending on weather conditions. To do this, apply the product in a thin layer with a cotton cloth. Never oil lubricate more than twice a year. If subsequent care is neglected and there is partially gray or fungi infected wood, restoring an optically uniform surface is very difficult and is no longer possible with a colorless lubricated surface. We do not recommend covering lubricated and hand-lubricated surfaces with adhesive tapes, but use suitable plastic plastering profiles. Particular care must be taken not to expose the elements to excessive construction moisture.

Hand-coated surfaces with oil on the outside are suitable for installation only in a place protected from rain and must not be exposed to water splash.

5. Care and maintenance of aluminum profiles

Aluminum surfaces are considered particularly resistant. To maintain their decorative appearance for decades, even when exposed to smoke, exhaust fumes and aggressive dust and to reduce the corrosion load, surfaces must be cleaned and maintained. For this purpose, facades cleaning quality guidelines must be followed.

Depending on the degree of contamination, aluminum surfaces should be cleaned at least twice a year. Contamination should be treated with clean water and soft cleaning cloths, if necessary, with a little added pH neutral agent.

6. Care and maintenance of glass surfaces

Do not clean in sunlight when the temperature is higher than 25 ° C. Glass surfaces can be cleaned with a damp cloth, with added commercially available glass cleaners. Do not concentrate cleaning agents on frame parts, silicone or glass seals. Do not use any solvent or abrasive based agents. Labels and adhesive tapes can be removed without leaving any residue immediately upon delivery.

Important: when carrying out construction work, glass surfaces must be protected from splashing mortar. If they do get soiled with mortar, do not remove it mechanically, but soak it in a 1:10 aqueous solution of vinegar and wipe it with a soft and damp cloth. Never use scrapers, blades, steel wool or abrasives.

Cleaning of ESG (single-layer safety glass) and TVG (partially tempered glass) - The surface of this glass changes in the process of thermal tempering compared to normal foam glass and is therefore more susceptible to scratching. Therefore, care must be taken during maintenance. Use a lot of water with a soft and clean cloth, and do not use blades and scrapers for cleaning.



"SMAJ PRODUKT "d.o.o.
Manufacturing, Trade and Services
Company
Lazarevo selo Niska Banja
Tel.018/4542-902,;4542-407
WWW.SMAJ.CO.RS
TIN 103659349 Reg.no.17618768

Important points for proper care:

- Carefully treat light glaze
- It is advisable to coat the damaged areas as soon as possible.
- Carpentry surface must be checked every three months for damage.
- The outside of windows exposed to weathering gets more damaged than the inside which is less exposed.
- Use only quality paints and care products.

How to properly maintain surfaces?

- Found damage in the coating is difficult to remove.
- At the required intervals, the surface should be cleaned inside and outside, lightly sanded and once coated with varnish used by the manufacturer. You can find out which product was used by phone or e-mail.
- Follow the instructions below for rough care and maintenance. Prevent damage immediately as water could enter and further damage the wood.

Accelerated aging (side exposed to the weather)	every 2 to 3 years
For light colors and tones in normal aging	every 2 to 3 years
For medium color tone in normal aging	every 4 to 10 years

The minimum residual gloss level is the gloss level determined according to DIN EN ISO 2813, which is at least 30% of the original value. The environmental factors that cause changes in carpentry are not subject to warranty. For example, corrosion due to environmental factors, when window and door elements are installed near the sea (salty atmosphere), on streets with salt scattering or in an area polluted by heavy industry.

Also, the impact of insects, pollen, soot particles, iron dust (abrasion from railways) and the like in combination with rainwater and intense UV radiation can cause persistent soiling that sometimes cannot be removed with conventional cleaners. In such situations, there is no guarantee of changes in the surface appearance due to soiling.



Warranty terms:

- adherence to our instructions, professional installation, respect for the basic rules and standards of building practice,
- submitting invoice and this warranty card,
- the warranty period begins on the day of delivery of our products to the agreed delivery address,
- replacement of elements and elimination of defects do not extend the warranty period,
- warranty service is limited to free improvements or free delivery of defective goods at our request. Any further work that cannot be done on our goods is not part of this warranty.
- repairs and modifications not performed by SMAJ make the warranty void.





7. ADJUSTMENT OF INSTALLED DOORS

In order to maintain the fittings function, all mounting parts must be regularly checked for tightness and wear. If necessary, fastening screws must be tightened immediately or damaged parts replaced. In addition, all sliding points and movable fittings must be lightly lubricated every year.

After finishing the masonry work, all the hardware must be free of dirt from lime, mortar and cement to avoid breakdowns. Only cleaning and maintenance products that do not impair corrosion protection should be used. The hardware of your door is optimally factory adjusted. Due to tolerance to transport and installation, re-adjustment may be required immediately after assembly.

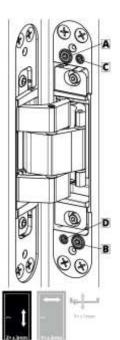
Adjustment should be carried out by a specialist/installer, and it may be necessary to time-adjust the fittings due to the movement of the building structure and normal use. The customer can do this during regular maintenance and is not part of the warranty.

Hinge adjustment

Adjusting up

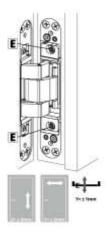
Using a 4mm hex key:

- Check that the adjusting mechanism is in the correct position by unscrewing and tightening until C and D screws resist all window frames.
- Turn A and B screws of all window hinges by one turn.
- Unscrew the C screws of all window hinges by two turns.
- Tighten D screw, gradually changing the operation on the different door hinges until you adjust the wings to the desired position.
- Tighten A and B screws of all hinges (using 7Nm torque)
- Tighten C screws until there is a slight resistance,
- To save the adjustment mechanism, loosen and tighten the screws of all window frame hinges until slight resistance is felt.



Adjusting down

- Make sure that the adjusting mechanism is in the correct position by unscrewing and tightening C and D screws of all window frame hinges until slight resistance is felt.
- Loosen A and B screws of all window frame hinges by one turn.
- Unscrew D screw, gradually working alternately on different window frame hinges, until the door adjusts to the desired position.
- Close screws A and B of all window hinges (using a force of 7 Nm).
- Tighten C screws until you feel a slight resistance.
- To save the connection mechanism, loosen and tighten D screws of all window frame hinges until slight resistance is felt.

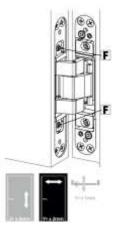


Depth adjustment

Loosen the two E screws on the hinge part secured to the frame using a 4mm hex key, adjust the cap to the required position, and then tighten the E screws (using 7Nm)

Side adjustment

Side adjustment is done on half of the plug fixed on the cap with a 4 mm hex key, acting alternately on two F screws.



All window and door adjustments are provided by professionals.



8. BLINDS

They are used for sun protection, privacy and glare protection. They are not suitable for protection of openings

from rain and are not protection against falling. No additional loads may be added to the blinds. The blind must be raised at a wind speed of 60km / h, and with the window open, even at a lower speed. When using blinds in the cold season, care must be taken to ensure that the system is not frozen. If you are not sure that there is no ice, the blind must not be used under any circumstances.

When the sun is shining, the blind should always be moved to the end position to ensure that the glass surface is evenly heated and that there are no heat surges. Make sure there are no people or objects in the blind area. If the blind is obstructed when moving, the blind or drive may be damaged. The motors used are not suitable for continuous operation and switch off automatically after approx. 4 minutes due to the integrated thermal protection. The motor is ready for operation again after approx. 10-15 minutes. Only clean the blinds in the fully lowered position. Do not move the slats sideways or push them upwards. Check working parts regularly for visible wear and damage and for product stability.

9. SHUTTERS

Shutters are used for sun protection, privacy and glare protection. They are not suitable for protection of openings from rain and are not protection against falling. No additional loads must be placed on the shutters. The shutter must be raised at a wind speed of about 50km / h. In the cold season, if you are not sure that there is no ice, the system should not be used. When the sun is shining, the shutter is always raised to the end position to ensure that the glass surface is evenly heated and that there are no heat surges. Be sure to check that there are no people or objects in the shutter area. If the shutter encounters resistance during lowering, the shutter will be damaged. If the shutter is obstructed when moving, the lift belts may tear or the drive may be destroyed. The lift mechanism consists in part of textile belts which, due to the manufacturing process, may have unavoidable tolerances or stresses in use. This can lead to a slight tilt of the shutter. The shutters should only be cleaned in the fully lowered position, do not pull the guides or remove the slats when cleaning. Check parts regularly for visible wear and damage and for product stability.

Only professionals can replace damaged parts.

10. MOSQUITO BLINDS

To ensure a long service life, we recommend regular surface cleaning. Remove dirt or objects from the guides and at the swivel point. The net should be wiped only with a damp cloth. If the mosquito blind is electrically operated, it must not be opened or closed by force. If it is manual, the handle strap must be used to open and close.

Especially when closing, the handle should always be used in the middle, otherwise the fabric may be damaged. To pull it with the pull cord, it must be in the middle of the holder handle. The pull cord can be moved sideways in the handle rod. One-sided operation leads to fabric damage and must be avoided. In the case of rolling door without "brakes", the handle strap must be raised as much as possible by hand. Since the insect net is plastic coated with glass fibers, the fabric can get wavy due to weathering. This is not a malfunction.

11. CONDENSATION

In a 4 people household, about 10 liters of water vapor are created daily, which cannot be absorbed by the air in the room. Therefore, condensation forms on the side surfaces of your windows under the following conditions:

- a) Warm, humid room air suddenly cools on a cooler surface, so it can bind less moisture, condensate is released and precipitated.
- b) Relatively cold air enriched with moisture. This is especially common in kitchens, wet rooms and bedrooms. In these areas, unpleasant fogging occurs in a short time, when the resulting moisture can no longer be bound by the air in the room and therefore settles as condensation. The goal is to reduce the relative humidity near the window to at least 50%.

The following options are available:

- 1. Ensure less moisture in the room air: Release large amounts of water vapor (showers, cooking) directly outside and do not distribute them throughout the apartment through the open door.
- 2. Remove greater amounts of moisture: Ventilate several times a day in all rooms, in the evening before going to bed, in the bedrooms in the morning after getting up.
- 3. Better air circulation in the window niche: enable the circulation of warm air to the glass panel (kitchen worktops, radiator covers, curtains, flower pots, etc. interfere with air circulation)
- 4. If possible, close the outer sun protection at night
- 5. Keep in mind that only the user can influence their living environment and thus reduce condensation in the room.

Due to these laws of nature, condensation forms on the outer surface of the insulating glass under the following conditions:

Especially in spring and autumn, the outside air cools down strongly overnight. Due to the good thermal insulation of modern insulating glass, hardly any heat comes from the room to the outer insulating glass panel, which is also heavily cooled during the night. If the outside air is too warm, and the outside

insulating glass is still cold (especially if they are not directly exposed to the sun), then the so-called "beer bottle effect" occurs. Warm outside air is cooled on the outside of the window and therefore can bind less moisture, condensation is released and precipitates. Over time, the outer surface heats up and condensation disappears. The physical laws of nature cannot be abolished, just as temperature and humidity outside cannot be influenced. The only option, if any, is to close the outside sun protection at night to make the outside of the window less cool. Otherwise, the formation of condensation on the outer glass surface cannot be avoided, and short-term obstruction of the view in the transition period must be accepted as a result of improved thermal insulation of the glass.

12. NOTICE REGARDING THE HEIGHT OF THE CONSTRUCTION

Modern energy-saving design and better insulation materials lead to lower airflow rates in the building. With normal ventilation, fresh air often does not flow enough, which can lead to moisture. Even low-temperature heating systems (such as underfloor or wall heating), especially if not placed close enough to the building envelope, can lead to the accumulation of condensate in the window even with normal use of living space. Therefore, we recommend careful planning in the development of the heating and ventilation concept for each new building and for each renovation of old buildings. It allows avoiding or reducing unavoidable condensation on windows and doors. The ventilation and heating concept must be developed by an expert who must allow for not only the thermal insulation values of all components, but also the air flow for the entire building and the intended use. In any case, the creator of the heating and ventilation concept should also be aware of the thermal insulation value and the physical properties of windows. Therefore, we recommend submitting all documents. Room humidity must be permanently below 55% at 20 °C.

In addition, we recommend the following measures to avoid or reduce condensation:

- proper and regular ventilation
- avoidance of excessive pressure in the building (occurs in densely populated areas, and the upper floors of buildings due to the rise of warm air)
- the best possible air circulation in the window area (opening the window, moving the curtain, Venetian blinds, as well as objects that obscured the window)
- regular maintenance and, if necessary, adjustment and cleaning of windows (at least once a year)



WARRANTY

Windows and doors manufactured by SMAJ PRODUKT pass the strictest quality tests. The warranty periods listed below testify to the high quality of our products.

10 YEAR WARRANTY

-for proper functioning of the fittings (tilt-and-turn function);

5 YEAR WARRANTY

- -for condensation in the interspace between the glasses, in the case of thermal packages;
- -for changes in the structure of anodized and plasticized aluminum profiles, caused by UV radiation; profiles plasticized in wood color are excluded;

3 YEAR WARRANTY

-for the entire window;

2 YEAR WARRANTY

-for additional equipment (electric motor, blinds, mosquito blind, shutters ...)



LIABILITY

GENERAL

- 1. Defects arising from insufficient care, installation by an unqualified person or further processing of the product are excluded from liability.
- 2. The goods must be inspected upon taking over by the buyer, for completeness, defects and damage caused during transport. Defects must be reported immediately, i.e. 24 hours after delivery and installation. In the event that no defects are reported within this period, SMAJ Produkt shall consider the product non-defective.
- 3. If delivered goods are proven to be damaged, and defect is reported in a timely manner, SMAJ Produkt shall replace the part free of charge or take the part for repair.
- 4. If the damage was not incurred by SMAJ Produkt, SMAJ Produkt is not obliged to compensate for the damage or eliminate the defects.
- 5. Repairs done by the customer or a third party without the consent of SMAJ Produkt cause the loss of the right to warranty.



- 6. The warranty period shall not be extended by identifying defects.
- 7. During installation or service, the customer shall provide free access for installers and any aids. All obstructing objects (curtains, furniture ...) shall be removed by the customer. The floors in the rooms where the product is installed or serviced must be protected, i.e. completely covered. Otherwise, SMAJ Produkt does not take responsibility for any damage and does not compensate additional costs in this regard.
- 8. SMAJ SMAJ Produkt is responsible for replacing or repairing defects in the product which are covered by the warranty, provided that the customer is not entitled to a discounted price.
- 9. The warranty is valid as long as the product is used in accordance with the specified instructions and technical standards.



WOOD

- 10. In the case of a wooden window, there may be small deviations in the color of individual window components (glass moldings ...). These differences shall not be considered a reason for complaint.
- 11. If the customer orders a wooden window that is only impregnated or painted with the base color, it is the obligation of the customer to do the matting and painting with the final color. SMAJ Produkt assumes no responsibility for complaints, defects and claims for the elimination of damage caused by the lack of suitable painting.
- 12. In the case of larch and pine wood, there may be a deviation in the color which is conditioned by the natural wood structure, so this shall not be considered a reason for complaint.
- 13. The surfaces of your window require additional care and monitoring. Only in this way can long-term durability and surface quality be guaranteed. Regular cleaning and maintenance can prevent additional coating, as the basic principle is: care instead of painting. Wood is a living material that adapts to environmental conditions. Your wooden windows must be cleaned regularly with water to remove dust, insect dirt and the like. Such impurities are the cause of the formation of green algae and fungi.



Maintenance milk

In addition to cleaning wooden windows, it is necessary to apply wooden surface maintenance milk at least once a year. Surfaces that are exposed to heavy weather conditions need to be coated with maintenance milk several times a year. This achieves protection from bad weather and a beautiful appearance, makes it difficult for moisture to penetrate, as the milk penetrates deeply. Regular use of maintenance milk can extend the window maintenance interval.

Restoration of windows by painting

Wood, as a natural material, requires regular recoating. As a rule, windows facing west or south are more affected by weathering, so UV radiation or other environmental factors (exhaust gases, dirt ...) may cause damage to the coated part. If the degree of damage is greater, repair or recoating is required.

Recoating must be done in a timely and professional manner by a company that specializes in this field. Gaskets (rubber) and fittings must not be coated, as their function may be compromised. In addition, the color must be harmonized with the existing one, by type and tone, i.e. it must be ensured that the new paint harmonizes with the original one.

If the coating is glazing, the outer layer durability depends on the coating thickness and the pigment content.

The greater the layer thickness and the pigment content, the longer the coating durability. Glazing surfaces should be coated every 6-8 years, with the control of surfaces being done every 4 years.

If the coating is covering, this coating system is more sustainable than glazing systems due to strong pigmentation.



The renovation interval is between 8-10 years. Due to the high climatic load, it is necessary to determine the damage caused by external influences on the lower part of the sash. Such spots, exposed to weathering, should be locally coated and repaired earlier. When applying the outer coating, care must be taken that the outer paint layer is of the same thickness as the inner. In this way, damage to the outer coating due to vapor pressure can be prevented.

ALUMINUM

- 14. If the aluminum profiles and blinds are particularly exposed to environmental influences (sea climate, distance from the sea less than 50 km, fog, high salinity, the impact of industrial vapors ...), the guarantee is not valid.
- 15. Differences in color conditioned by production and material on anodized horizontal and vertical profiles are possible. This shall not be considered a reason for complaint.

GLASS

16. Due to solar radiation and changes in the external air pressure, bulges or dents can appear on the glass surface. Since these changes are caused by natural phenomena, this shall not be considered a reason for complaint.



- 17. When re-ordering windows, there may be a noticeable difference in the glass tone, as the previous windows, i.e. the glass on them can differ over time, so the new glass cannot be identical to the old one.
- 18. In the case of thermopanes, strip- or ring-shape changes may occur. These phenomena are conditioned by glass production, as the optimal glass parallelism is required, so this shall not be considered a reason for complaint.
- 19. The Hadamar Glazing Trade Association regulations apply to assess the visual quality of insulated glass. In general, the glazing unit is tested for defects at a distance of about 1 meter from the angle of observation, which corresponds to the general normal use of the room. The test is done in daylight, without direct sunlight and artificial lighting.
- 20. Based on the physical glass properties, care must be taken not to overheat the glass (due to sunlight or a heating element). The heat must be distributed evenly on the glass, otherwise SMAJ Produkt assumes no responsibility for the glass stability.
- 21. For products with metal slats in the space between the panes, opening and closing noises may occur. These noises are technically conditioned and shall not be considered a reason for complaint.



SILICONE

22. Silicone is used in most cases of installing windows. Presence of odors and irritations originating from silicone may occur in the early days, and disappear after a few days due to regular ventilation. Sensitive persons and small children are advised not to stay or sleep in rooms where windows are changed immediately after the works are performed.

*** This Manual is an integral part of the Contract on the manufacture and installation of exterior carpentry, made and entered into by and between the customer and the contractor SMAJ Produkt.