



## CONTENTS

### 1. INTRODUCTION

- 1.1. Symbols and nomenclature
- 1.2. General information

### 2. SAFETY REQUIREMENTS

### 3. PRODUCT OVERVIEW

- 3.1. Control specifications

### 4. OPERATION AND USE

- 4.1. Use and operation of the roller shutter
  - 4.1.1. Use
  - 4.1.2. Operation
    - 4.1.2.1. Manual drive
    - 4.1.2.2. Electric control
- 4.2. Operation and use of the insect screen
  - 4.2.1. Use
  - 4.2.2. Operation

### 5. MAINTENANCE AND REPAIRS

- 5.1. Roller shutter maintenance and repair
  - 5.1.1. Maintenance
  - 5.1.2. Repairs
- 5.2. Insect screen maintenance and repairs
  - 5.2.1. Maintenance
  - 5.2.2. Repairs
- 5.3. Technical inspection

### 6. HAZARDS

### 7. REMOVAL AND END-OF-LIFE DISPOSAL

### 8. PRODUCT MARKING

## Important safety instructions.

### WARNING!

**Compliance with this Manual is essential for personal safety.  
Keep this Manual for reference.**

If you find any terminology used in this Manual unclear or cannot explicitly interpret the Manual, consult the manufacturer before attempting to install the roller shutter.

## 1. INTRODUCTION

All systems made by Aluprof are designed in compliance with first-class standards of performance, aesthetic values and operating convenience. The design deliverables from Aluprof engineers are based on the state of the art in design engineering, and the production ownership uses the latest know-how in manufacturing. This ensures safety of operation of Aluprof products.

### 1.1. SYMBOLS AND NOMENCLATURE






**System Provider** – means an business organization that is not a manufacturer of a construction product, supplying semi-finished products in wholesale quantities and technology, necessary to create a construction product. The system includes external roller shutters (front-mounted, underplaster, top-mounted). The system provider is Aluprof.

**Manufacturer** – means an business organization, which manufactures and markets the product under its own name or trademark. The product is an external roller blind (external roller shutter).

**Supplier** – means any natural or legal person that makes a product of another manufacturer available on the market. The supplier may also be the product installer.

**Product user** – the person using the installed product.

The special information indicated by graphical in this Manual requires careful reading and understanding.


Symbol	Meaning	Description
	INFORMATION	This symbol indicates important information to read and understand. It does not relate any hazardous or harmful conditions of the product or people.
	NOTE	Indicates risks of damage to the product.
	WARNING	Indicates all safety-relevant information non-compliance with which will cause a hazard of injury or death.
	DANGER	Indicates conditions which cause hazards of injury or death by electrical shock.
	INFORMATION	This symbol indicates the product cannot be disposed of with municipal (household) waste.


### 1.2. GENERAL INFORMATION


The supplier is not responsible for losses resulting from failure to comply with these instructions, except for defects on the part of the supplier.

 The manufacturer will not accept any liability for damage caused by incorrect operation and/or maintenance of its product.

The improvements of external roller blind systems as well as increasing the quality of service and safety of their use are constantly carried out.


 This Manual is intended for the user of the external Roller Shutter. Read it before commissioning the Roller Shutter for use. The Manual includes all information necessary for safe operation and proper maintenance of the Roller Shutter. Keep this Manual for the whole operating life of the roller shutter. Transfer this Manual with the Roller Shutter to the new owner, if any.

 The owner of the Roller Shutter is required to introduce all Roller Shutter users to this Manual and instruct them in proper operation of the Roller Shutter.


 • The manufacturer will not accept any liability for damage caused by incorrect operation and/or maintenance of its product.  
• No warranty claims of damage caused by force majeure, inclement weather, and normal wear and tear will be accepted. Wear of the paint coating of the curtain in which minor scratches may appear after approx. 200 cycles is also considered natural.  
• The manufacturer will not be liable for any alteration or improvement made to the product structure or outfitting it with any accessories not approved by Aluprof S.A.

## 2. SAFETY REQUIREMENTS


Compliance with the following requirements is essential to ensure the safety of Roller Shutter users and Roller Shutter operation. The requirements apply to the installation location and the use of the Roller Shutter.

-  Do not operate the Roller Shutter if its electrical wiring is damaged.


---

-  Extreme safety precautions are required for small children and the disabled. The guardians of children shall be liable for compliance with the safety instructions provided by the product manufacturer.


---

-  Strict compliance with the safety instructions is required within the range of the Roller Shutter effects on objects or fit-out features.


---

-  If the Roller Shutter can be operated remotely from a location where the Roller Shutter is not in the field of vision of the user, the user shall implement organisational measures near the Roller Shutter which will prevent damage of the Roller Shutter in operation


---

-  Keep clear from all moving parts of the Roller Shutter in motion: hazard of injury and damage to the product!

---

-  Do not remove the drive unit guards. The guards must be fastened so their removal requires tools.

---

-  If the Roller Shutter features standalone electrical devices (e.g. wind / sunlight / rain sensors), follow their operating manuals.

## 3. PRODUCT OVERVIEW

**The external Roller Blind** (roller shutter) is a construction product intended for use in existing or new residential, public and industrial buildings as a privacy and sun shielding screen which provides an additional cover of a wall opening (a window or a door). Roller shutter profiles are made of high quality aluminum sheet which has two-layer PU-PA paint coatings. The material meets the European Coil Coating Association standards, which ensures high resistance to weather conditions and abrasion during many years of use. The operation of the Roller Shutter (its opening and closing) is managed by manual control (rope / strap, crank, spring) or electrical controls, like a control switch, a wireless control fob or another control device which provides automatic control, e.g. a rain, wind, or sunlight sensor.


The external Roller Shutters are the functional solution for door and window shading / screening. With a simple design, they can be applied in nearly all types of buildings.

### The key features of the Roller Shutter include:


- Easy installation and operation;
- perfect protection against adverse weather conditions (wind, rain, snow, sun, etc.),
- protection against heat loss in winter and overheating of rooms in summer,
- adjustable access of light from the outside thanks to the possibility of using perforated or non-perforated profiles,
- Reduction of heat transfer to indoor spaces with maintained exchange of air;
- Perceived reduction of outdoor noise;
- Privacy screening of indoor spaces;
- may have increased burglary resistance,
- three types of profiles: PT pvc profiles, PA profiles filled with CFC-free foam, PE aluminium extruded profiles,
- Compatible with insect screen systems;
- the roller shutter can be operated manually or with the electric motors,
- Full compatibility with smart home systems / BMS.

*Insect screen can be integrated with in roller shutter.*

**The insect screen** provides an excellent barrier to insects and airborne solids between the exterior and the interior of a building. It is intended for installation on the outside of a wall opening (a window or a door) in residential and public buildings. The insect screen components are made from extruded profiles; all shapes are finished by powder coating. The insect screen mesh is made from high-quality glass fibres. The first-class materials make the product extremely resistant to inclement weather and elements.

- 
-  The insect screen is equipped with a spring which supports the rolling of the net. The insect screen can also be equipped with a brake that slows down rolling of the net and stops it from rolling up too rapidly, prevents also endslat from hitting the box.

---

  -  The insect screen mesh size may slightly vary over the entire screen mesh surface. This does not affect the performance of the insect screen and cannot be reasonably claimed as a product defect on warranty.



### 3.1. CONTROL SPECIFICATIONS

The specifications vary depending on roller shutter dimensions and specific motor and control types.

Motor specifications			
Actuator / electric motor overall length	358 – 860 [mm]	Supply voltage	230 [V AC]
Torque	4 ÷ 120 [Nm]	Frequency	50 [Hz]
Number of turns	8 ÷ 32 [min <sup>-1</sup> ]	Operating temperature	-10 ÷ + 60 [C°]
Working time	4 ÷ 6 [min]	Protection grade	IP 44, IP 54
Drive unit rated current	0,35 ÷ 1,85 [A]	Wire length	3 [m]
Power consumption	65 ÷ 420 [W]	Cable cross section	3 x 0,75; 4 x 0,75; 5 x 0,75

Control specifications	
Max. no. of controlled units (unit groups)	1 ÷ 20
Wireless control signal range (in open field)	80 ÷ 200 [m]
Wireless control signal range (indoor)	20 ÷ 30 [m]


## 4. OPERATION AND USE


### 4.1. USE AND OPERATION OF THE ROLLER SHUTTER

The roller shutters and its components have been designed in such a way that no part of it is permanently deformed in normal use.

Frequently inspect the appearance of the Roller Shutter for its technical condition. If anything abnormal is found, do not operate the Roller Shutter.

Contact the vendor or its authorized reseller.

 Operation of the Roller Shutter which is damaged or incomplete and unauthorized repair of the Roller Shutter can cause hazards of injury or death and void the product warranty.

 The Roller Shutter operated with an electric drive unit cannot be opened or closed if the mains supply voltage is missing. It is recommended to provide a power supply back-up or use of motor with MO emergency manual override in areas with frequent mains outages.

#### 4.1.1. USE

When operating the Roller Shutter, follow the guidance below to prevent damage of the product:

- The Roller Shutter drive unit motor is intended for intermittent duty in short cycles. It features an overtemperature trip which stops the drive unit if an overload is sensed. The continuous cycle of the motor cannot exceed 4 minutes. The Roller Shutter is ready for another operating cycle once the overtemperature trip cools down (which takes approximately 15 minutes). Frequent overheating of the Roller Shutter motor may eventually damage the thermal switch, and therefore damage the motor,
- The roller shutter can be used for a maximum of 50 opening and closing cycles per day,
- Do not allow for the curtain to be completely pulled into the box,
- Do not allow for the curtain to scroll on the reel while lowering the curtain,
- When closing the Roller Shutter, make sure that the curtain will not strike anyone or any object
- Staying around the operating range of the Roller Shutter should only take place when the Roller Shutter is fully opened (raised) and stopped,
- The curtain should be cleaned of minor impurities that may damage the varnished coating of the curtain during rolling up,
- Do not open / close the roller shutter in case of heavy icing of the curtain,
- If snow or extremely low temperature is expected, disable the timer controls of the Roller Shutter (if any) and operate the Roller Shutter with manual controls only.
- If strong gusts of wind are present (see table in point 4.1.2. Operation), immediately raise or lower the Roller Shutter's curtain all the way, without any gaps between the endslat and the surface,,
- Inspect the Roller Shutter textiles (cord or strap) for damage.
- Keep hot objects and sourced of heat away from the Venetian blind (e.g. air heaters, stoves, irons, etc.).
- Do not attempt unauthorized modification of the Roller Shutter structure or movement system.
- In the event of a system failure, the curtain should be brought to a stop and kept safely in this position until the arrival of the service team.

 If the Roller Shutter is installed over a window which opens to the outside, the window must be closed before and during the movement of the Roller Shutter.

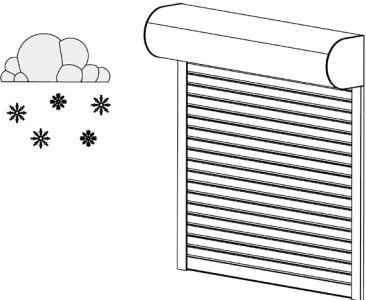
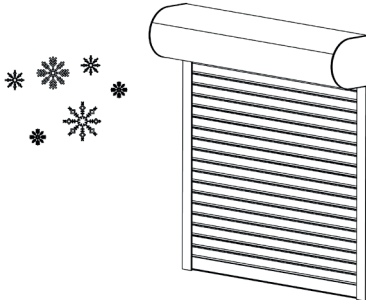
Incorrect operation of the Roller Shutter may result in:

- Hazards to the users;
- Risks of damage of the product;
- Partial or total loss of the product performance;
- Loss of aesthetic value of the product or the building it is installed in.

**i** The Roller Shutter can act as sun protection, light control or privacy protection.

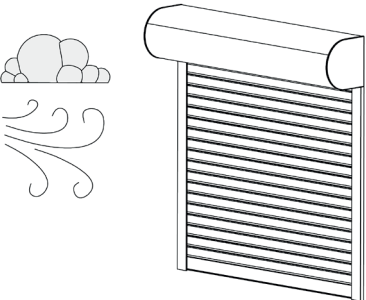
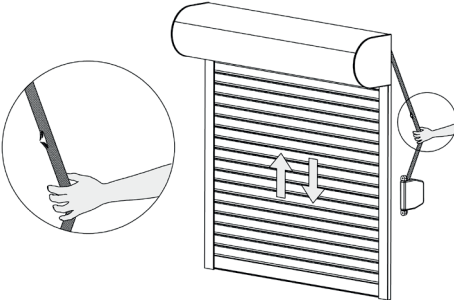
**i** Only the Roller Shutter that meets the anti burglary class restriction can be used as anti burglary protection (PN-EN 1627: 2021-11 standard).

Essential operating safety guidelines for the Roller Shutter:

Operation in winter	Operating the Roller Shutter at low temperatures
	
<p>If there is any risk of icing of the Roller Shutter, all automatic control must be disabled</p>	<p>Ice can build on the Roller Shutter at low temperatures and/or during snowfall. Do not attempt to open or close the Roller Shutter in these conditions. Operate the Roller Shutter only with the ice completely removed</p>

**i** If the Roller Shutter drive unit features overload protection or a collision detection system, the automatic controls do not have to be disabled.

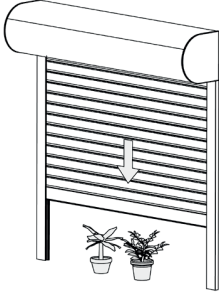
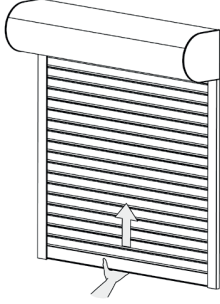
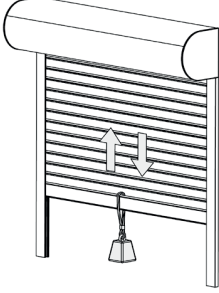
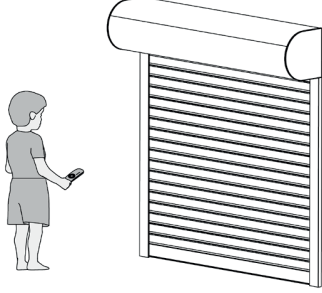
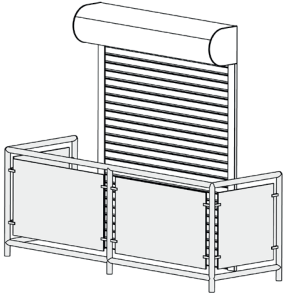
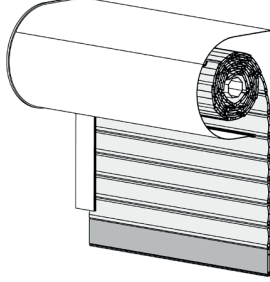
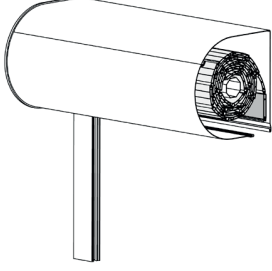
**Δ** Operation at low (freezing) temperatures may damage the Roller Shutter.

Operating the Roller Shutter in wind	Technical condition of the Roller Shutter textiles
	
<p>Close the window screened by the product in high wind. When absent from the installation location of the Venetian blind, take the necessary precautions to prevent wind draughts.</p>	<p>Inspect the technical condition of the strap and rope.</p>

**Δ** If the Roller Shutter is closed (rolled down) over an open window, it may fail under the wind load.

**Δ** Failure of the strap or rope might cause self-falling of the curtain and damage the roller shutter elements.

**i** The specified wind load class is guaranteed only with the window closed and completely rolled down curtain.


Roller Shutter work range	Improper operation of the Roller Shutter
	
<p>No one and no objects must be present within the work range of the Roller Shutter and obstruct its movement. If the curtain runs into an obstacle, first lift the Roller Shutter slightly and remove the obstacle.</p>	<p>Do not pull the curtain forcibly by hand or with any tools.</p>
<p>⚠ Obstruction of the curtain work range may result in damage to the Roller Shutter.</p>	<p>⚠ Any attempt at manually rolling the Roller Shutter up or down will result in improper performance or damage of the Roller Shutter.</p>
Non-intended use of the Roller Shutter	Access to the shutter operating elements
	
<p>The curtain should not be loaded with additional weight.</p>	<p>It is forbidden for children to play with the remote control or the switch that operates the Roller Shutter. Keep the portable transmitter away from children. Only adults should control the roller shutter.</p>
<p>⚠ Adding additional load to the roller shutter curtain lead directly to its damage.</p>	<p>⚠ Disable the automatic controls</p>
Roller Shutter with an electric motor, installed over a balcony / patio door	
	<p>If the balcony / patio door over which the Roller Shutter is installed is the only pathway to and from the balcony / patio, there is a potential risk of trapping the people on the balcony / patio if the Roller Shutter is rolled down.</p>
<b>endslat position</b>	
	
<p>The curtain and endslet must stay in guide channels range.</p>	<p>The curtain must stay out of the Roller Shutter box.</p>

#### 4.1.2. OPERATION

The Roller Shutter can only be operated (opened and closed) with the electric drive unit / electric motor installed in it. It's recommended if a timer control is installed, to use fully automatic wind controls.


 prevent damage.

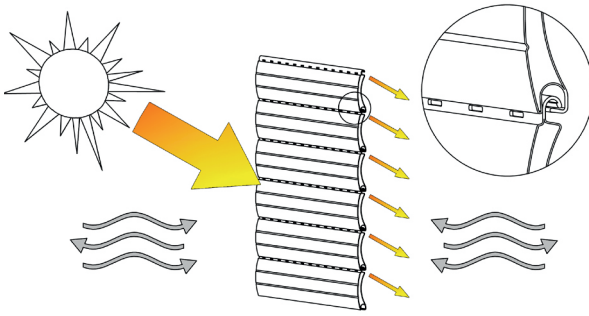
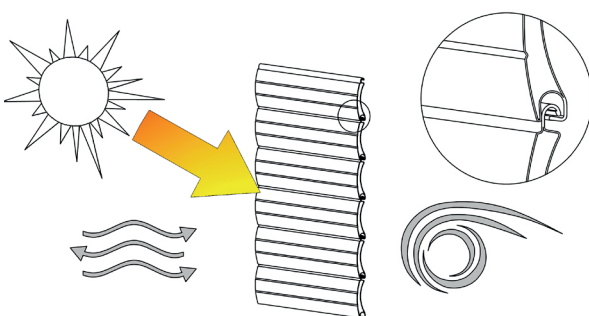

 The limit positions of the drive unit are configured by the OEM. If they require adjustment, perform it in compliance with the supplied programming guide.

 Keep the roller shutter curtain rolled up completely (top limit position) at wind speeds above exceeding the allowed speed in a given wind load resistance class. It is highly recommended to monitor Roller Shutter during high winds and operate it accordingly even with a wind sensor installed.

Wind load resistance classification acc. to EN 13659	Safe wind speed	
	[m/s]	[km/h]
1	< 8,9	< 32,2
2	< 10,6	< 38,1
3	< 12,6	< 45,5
4	< 16,5	< 59,4
5	< 20,8	< 74,8
6	< 25,3	< 91,1

CE label and the Declaration of Performance (DWU) delivered with the product contains information about the wind load resistance class of a given roller shutter.

 No one and no objects must be present within the work range of the curtain and obstruct its movement.

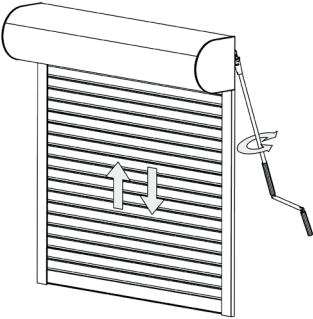
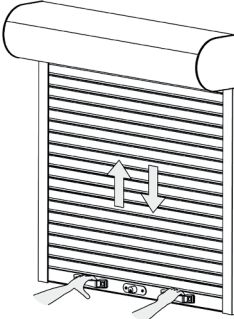
Perforated curtain	Non-perforated curtain
	
<p>To ensure the free flow of air and a slight interior lighting it is recommended not to shut the curtain with the use of perforated profiles.</p>	
<p> In the period of severe frosts and gusty winds, any unsealing of the curtain perforation should not be left. Condensed and frozen water in the perforation may lead to improper winding of the curtain or even damage it.</p>	

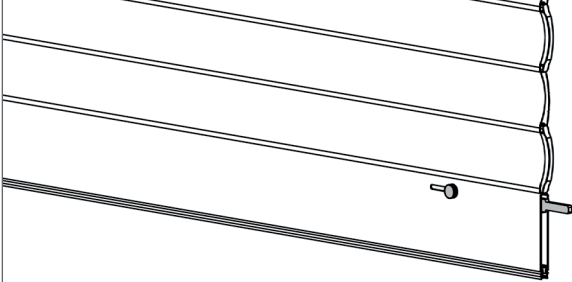
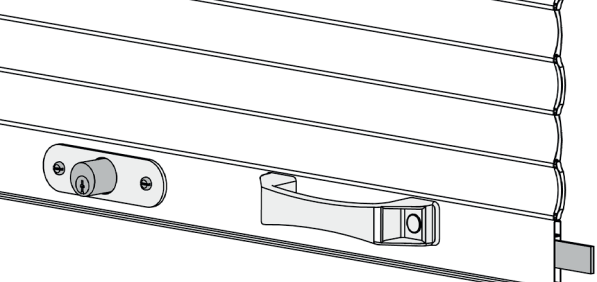


### 4.1.2.1. MANUAL DRIVE

⚠ For Roller Shutter with manual drive pulling of the tape / cord or turning of the crank when raising or lowering the curtain shouldn't be done forcefully.

strap / line coiler	
Roller shutter operation with the use of a coiler	Roller shutter operation with the use of a gear coiler
<p>To raise the roller shutter curtain, grab the strap (rope) with your hand and pull it down. Loosened part of the strap (rope) will be automatically reeled into the coiler, and the curtain will be raised to a certain height. Repeat this operation several times until the curtain will be stopped by stops installed in the bottom rail.</p> <p>The roller blind curtain becomes lighter as it is lifted, so last moves requires less force and should be done slowly, so that the stops in the endsalt do not hit the roller shutter box too hard.</p> <p>To lower the roller shutter curtain, grab the strap (rope) and gentle pull it out from coiler, towards your self, to unlock the coiler brake. Then slowly move the strap (rope) towards the roller shutter until the tension is gone.</p>	<p>For roller shutters operated with gear coiler is difficult to define actual weight of the curtain, so is important to exercise caution when operated roller shutter. Raising or lowering of the curtain is done by turning of the crank. Just before when the roller shutter is fully open or close, slow down turning of the crank and stop when: resistance is felt while lifting or curtain as stopped while lowering.</p> <p>⚠ Do not turn the crank any further with the roller shutter fully closed or open.</p>
<p>⚠ Strap (rope) should be in vertical position - any vertical tilting may result in their excessive wear and might lead to chafing or uneven winding of the line or strap and, as a result, disturbances in the roller shutter operation.</p>	
<p>⚠ Do not bend or twist the strap!</p>	
<p>⚠ Pulling in of the strap / rope should be done in one pace, avoid sudden movements and jerking of the strap or line, as this may damage the roller shutter.</p>	
<p>⚠ Do not let go of the strap (rope) suddenly, as this may damage the brake or the coiler itself.</p>	
<p>⚠ Strap (rope) should not be pulled out in excess from the coiler it might cause the roller shutter curtain to fall too quickly and endslat hitting the surface.</p>	
<p>ⓘ The shutter curtain can be stoped at any height, partially shading the room. For heavy courtains (especially made of extruded PE profiles) it is not recommended to leave curtain just above window seal, because in this position the greatest forces are exerted on the coiler brake.</p>	

Crank operated roller shutter	Spring operated roller shutter
	
<p>Raising or lowering of the curtain is done by turning of the crank in the right direction. It is important to exercise caution when operated roller shutter with gear coiler because the gears used allow for high forces that can damage the roller shutter components. It is necessary to stop turning when: resistance is felt while lifting or curtain has stopped while lowering. Just before when the roller shutter is fully open or close, turning of the crank must be slow down.</p>	<p>To close the roller shutter with the spring drive pull the curtain evenly down by the handle in endslat and then when curtain is in lower position turn the key to lock it. For opening of the roller shutter, hold the curtain and use the key to release the lock. Slowly release the handles. Rolled up of the curtain and opening of the roller shutter will be done automatically.</p>
<p><b>⚠</b> Do not turn the crank any further with the roller shutter fully closed or open.</p> <p><b>⚠</b> Any vertical tilting of the crank has to be avoid, it may increase drag and result in excessive wear.</p>	<p><b>i</b> To open or close the roller shutter with a lock, first press the endslat to the very bottom, and then turn the key.</p>

Operation of the Roller Shutter with manual protection in endslat.	
	
<p>For the Roller Shutters with manual protection in endslat (bolt or cylinder lock), release the protection before opening blind.</p>	
<p><b>⚠</b> The opening of the bolt and the lock should be protected against dirt, especially sand.</p>	


#### 4.1.2.2. ELECTRIC CONTROL


Electric control of the roller shutter allows to roll down and roll up the curtain and, in some cases, to set the curtain at a given height (comfortable position). After the roller shutter is fully opened or closed, the motor will be automatically stopped by the limit switches.

Control types:

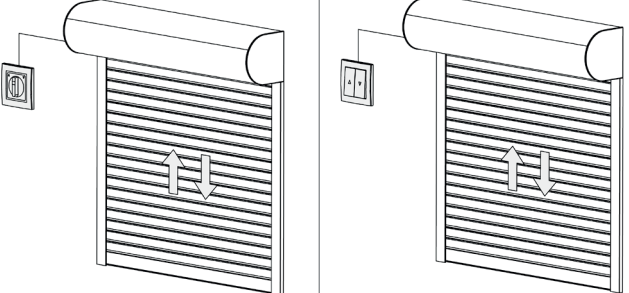
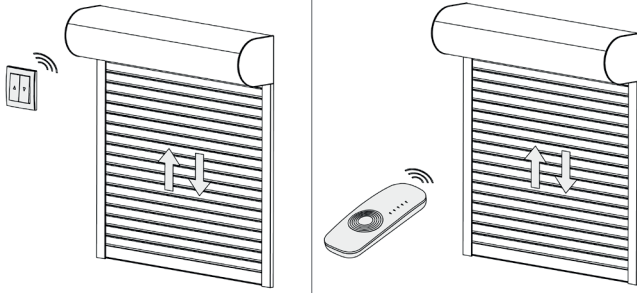
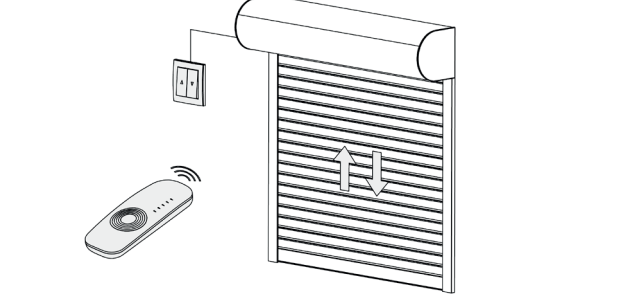
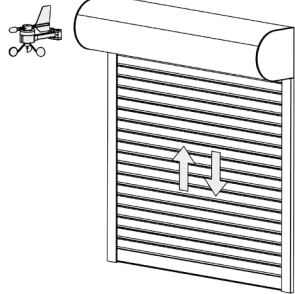
- Wired control: requires a wired control connection between the Roller Shutter drive unit motor and the control switch. The Roller Shutter is operated with the control switch.
- Wireless (RF) control: the Roller Shutter drive unit motor is wired to its mains power source. The Roller Shutter is operated with a portable transmitter or a wall-mounted transmitter.
- Hybrid control: features wired and wireless controls which can be used alternately with a wired control switch and a wireless control fob.
- Optional control devices:
  - Weather sensors, which includes wind sensors, rain sensors and sunlight sensors; these controls automatically operate the Roller Shutter in response to the sensed weather conditions.
  - Control timers: command the Roller Shutter to open and close at preset times
  - Adaptive control system: the control system "learns" and stores the daily operating pattern of the Roller Shutter users; once they are learned, the control system builds an operating time schedule and follows it to automatically operate the Venetian blind.
- Roller Shutter solar power supply: PV (photovoltaic) panels can be used an alternative to the primary mains supply for the Roller Shutter.

- Smart building control-based operation of the Roller Shutter: a solution which enables control over all systems and equipment features in the building with any mobile device (a tablet or a smartphone) with Internet connectivity.

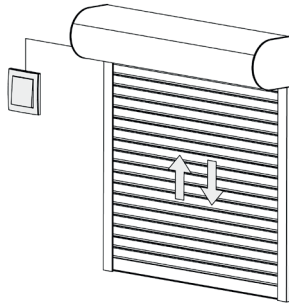
 If the Venetian blind features standalone electrical devices (e.g. wind / sunlight / rain sensors), follow their operating manuals.

 For the safe operation of electrically operated roller shutters in winter, it is recommended to install motors with an overload function.

 The Roller Shutters provided with automatic controls are operated automatically. This requires monitoring to prevent hazards.

Rotary selector / key switch control application	Portable transmitter / wall-mounted transmitter application
	
<p>The roller shutter moves in the selected direction (up - down), following:</p> <ul style="list-style-type: none"> <li>- when the rotary selector is turned (clockwise or counter-clockwise);</li> <li>- when the respective key switch is pressed (up or down).</li> </ul> <p>When using switches without voltage support (the switch pops off after releasing it), it is operated by keeping the button pressed in the right direction while the curtain is working. Releasing the button stops the roller shutter. However, when using a switch with voltage support, it is enough to press the appropriate key with the direction of the roller shutter. The key remains pressed. If we want to stop the roller shutter, we have to press the button to its original position (STOP function). At the end points, at the very top and at the very bottom, the motor will turn off by itself (the limit switches are activated), so after the roller shutter has stopped, we recommend pressing the button on the switch to its original position.</p>	<p>The curtain moves in the commanded direction when the respective key switch is pressed (up or down). STOP button has to be pressed or direction button has to be released to stop curtain in the right moment.</p>
Wired switch and portable transmitter application	Weather sensor application
	
<p>The curtain moves in the commanded direction after the respective key of the portable transmitter or key of the switch is pressed (up or down).</p>	<p>The Roller Shutter starts moving to a specific position and/or in response to the sensed weather conditions without any need for the user to interact with the controls. The user may, depending on the actual conditions, operate the key switch / portable transmitter.</p>

#### Application of the „bell” type switch



Roller shutter with the „bell” type switch (key pops off when released) is operated by pressing button. Each subsequent press of the button changes the direction of the curtain movement, i.e. up-stop-down-stop-up etc.



If the Roller Shutter suddenly stops moving while its electric motor continues to run, immediately stop the electric motor with the respective command button on the portable transmitter or, as applicable, release the momentary key switch or operate the reverse key of the latched switch.

## 4.2. OPERATION AND USE OF THE INSECT SCREEN

The insect screen and its components have been designed in the way that no parts of it will be permanently deformed during normal use.

Frequently inspect the appearance of the insect screen for its technical condition. If anything abnormal is found, consult the vendor or its authorized reseller.



Using a damaged or incomplete insect screen and/or unauthorised repairs may void the product warranty.

## 4.2. USE

When operating the insect screen, follow the guidance below to prevent damage of the product:

- Close the insect screen by operating the lift cord and the bottom rail which features a handle on the inward side.
- When closing the insect screen, make sure that the bottom rail and the screen mesh will not strike any object.
- Clean the screen mesh of fine dirt which might cause the screen to fail while rolled up.
- avoid contact of the net with hot objects (e.g. heaters, stoves, irons),
- Do not attempt unauthorized modification of the insect screen structure or movement system.

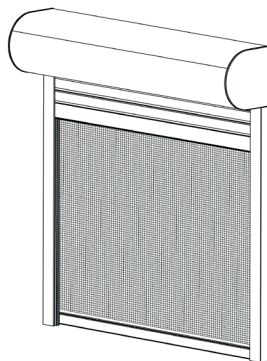


Note that the insect screen cannot protect anyone from falling out of the window it closes.



It is forbidden to open and close the mosquito net when the roller shutter's curtain is dropped.

#### Operation in winter



To avoid damaging or destroying the net in winter, it is recommended to completely roll the net into the box.

During frost and snowfall, the net may ice up. In this case, insect screen must not be operated. Insect screen can be operated again after icing cessation.

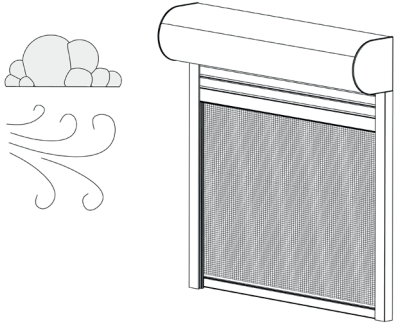
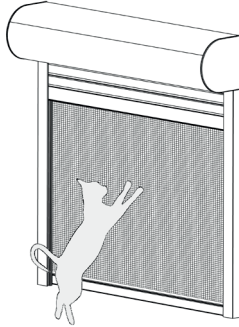


Using of the insect screen in frost may damage it.



Removing ice from the net and elements of the insect screen may damage it.



Operation of the insect screen in windy weather	Access to insect screen elements
	
<p>Close the window screened by the product in high wind. When absent from the installation location of the Venetian blind, take the necessary precautions to prevent wind draughts.</p>	<p>Particular attention should be paid when pets come into contact with the net - protect it from damage.</p>
<p><b>⚠</b> Using the insect screen in strong winds and an open window may damage the product.</p>	<p><b>⚠</b> Pets are capable of destroying the net.</p>
<p><b>i</b> The specified wind load class is guaranteed even when the window is open.</p>	

#### 4.2.2. OPERATION

**⚠** When the wind exceeds the permissible speed in the given wind load resistance class, the insect screen should be rolled up to the box or the window or door behind the insect screen should be closed.

Wind load resistance classification acc. to EN 13561	Safe wind speed	
	[m/s]	[km/h]
1	< 8,0	< 28,8
2	< 10,6	< 38,1
3	< 13,3	< 47,8
4	< 16,5	< 59,4
5	< 20,8	< 74,8
6	< 25,3	< 91,1

Information about the wind load resistance class of a given insect screen can be found on the CE label and on the Declaration of Performance (DWU) supplied with the product.

The Aluprof insect screen is a product which, within the normal and reasonably foreseeable conditions of operation, poses no or negligible hazards acceptable for normal use and it is compliant with stringent requirements for the safety of human life and health.

Roll-up insect screen	
Operating the insect screen	Risk of damage while opening
<p><b>Variant I</b> Closing</p> <p><b>Opening</b></p> <p><b>Variant II</b> Closing</p> <p><b>Opening</b></p>	<p>To close the insect screen, lower the bottom rail to the end (bottom) position. To open the insect screen, press the bottom rail down.</p> <p>To close the insect screen net endslat needs to be moved to end position (down), to open it endslat needs to be pressed down.</p> <p><b>i</b> The insect screen can be optionally provided with a roll-up brake to slow down the roll-up speed.</p>

## 5. MAINTENANCE AND REPAIRS

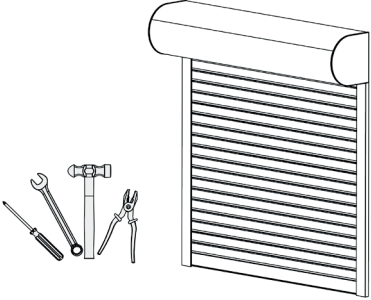
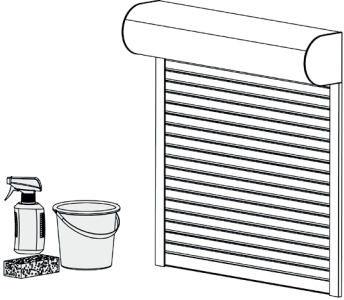




### 5.1. ROLLER SHUTTER MAINTENANCE AND REPAIR



Do not attempt to alter or modify the product without authorization; otherwise your product warranty will be void and the product may become a hazard of injury or death. Have all repairs done by a qualified technical service provider of the vendor or its authorized reseller.



Isolate the mains power from the product before servicing! Hazard of death!  
Lock out the product against inadvertent reconnection of the supply voltage!

Repair	Cleaning
	
<p>Frequently inspect all visible parts of the Roller Shutter for jamming or other types of damage. If any operating abnormality or damage is found, do not attempt to repair the Roller Shutter on your own. Call an authorized professional technical service provider.</p>	<p>Regularly clean the curtain to ensure a long operating life. Clean with suitable products only.</p>
<p> Failure to isolate the Roller Shutter from its mains power supply is an electrocution hazard while servicing the electrical wiring connections.</p>	<p> Failure to isolate the Roller Shutter from its mains power supply is an electrocution hazard while maintaining the electrical wiring connections.</p>
<p> Electrical servicing must only be performed by suitably licensed professionals.</p>	<p> Frequently clean the guide channels of the Roller Shutter from foreign objects and dirt.</p>

#### 5.1.1. MAINTENANCE


If dirty, the Roller Shutter may suffer failure of the components critical to proper operation. Clean the Roller Shutter at least once a year or twice a year, if operated at a sea coast or an industrial area.

Simple maintenance tasks can be performed by the Roller Shutter user and do not require special skills. Simple maintenance tasks include functional tests of rolling the curtain up and down and the limit switches.

Maintenance of the Roller Shutter includes cleaning of all visible and accessible components, keeping the curtain clean, and removal of all dirt which might accumulate inside of the guide channels. Follow the guidance below:


- Clean the Roller Shutter only when it is not in motion and with curtain fully rolled down,
- Disconnect the mains power supply from the Roller Shutter before cleaning the window or the wall near the Roller Shutter or the Roller Shutter itself.
- it is forbidden to pour water on roller shutters, cables, motor or control elements,
- do not use sharp, rough or abrasive tools and cleaning agents to clean the Roller Shutter,
- parts of the shutter and its curtain should not be squeezed tightly,
- Wash the curtain with water and some mild, neutral detergent (cleaning should be performed in the temperature from 10o to 25o). Curtain should be rolled down, a sponge or chamois leather can be used, rinse with a sufficient amount of clean water. Do not clean with pressure washers or pressurized steam. Protect the Roller Shutter from exposure to aggressive or corrosive chemicals, like potassium nitrate from building mortar, acids, alkalis (lye), and salts, and from mechanical damage. Strong cleaning products may cause corrosion and/or discolouration of the finish coating.
- Do not use any organic or inorganic cleaning products which contain esters, ketones, alcohols, aromatic chemicals, or chlorinated hydrocarbons, or any cleaning products the chemical composition of which is unclear.
- Remove greasy stains (from oil or soot), residues of adhesives, and silicone rubber with chemicals free from petroleum-derived aromatic hydrocarbons.

### 5.1.2. REPAIRS


 Do not attempt unauthorized repair or modification of the Roller Shutter structure or movement system. If the product fails to work properly, any of its components requires replacement or the Roller Shutter structure requires any modification, the relevant servicing must only be done by an authorized product installer.


The manufacturer will not be liable for:

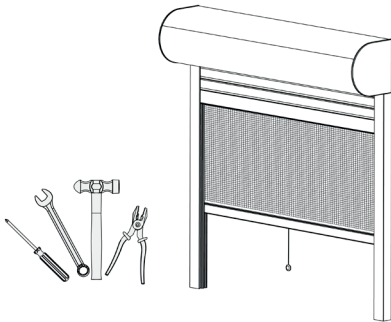
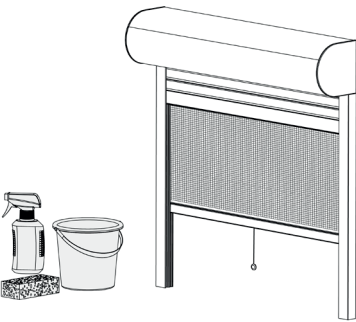

- wrong tension or break of tape/cord resulting from improper use,
- attempts to repair the tension of the tape / cable (retractor) on your own,
- Loss of aesthetic value by presence of dirt, damage from chemicals, etc.;
- Damage of the movement system by overloading;
- installation not in accordance with the intended use, e.g. in rooms with high humidity, near heat sources,
- modification and repair by the customer, as a result of which the roller shutter was damaged,
- Scratching of the finish coating of the product caused during unpacking;
- Other types of damage caused by:
  - incorrect use of the product;
  - careless storage of the product and/or its overloading;
  - failure to comply with the OEM's installation manual;
  - random events, such as: flooding the apartment, the impact of animals, the effects of strong wind, rain, frost or snow. To protect the Roller Shutter, leave it in the raised position.

 If smoke appears during the use of the Roller Shutter, power supply of the roller shutter must be immediately turned off. Contact the supplier or an authorized representative.

### 5.2. INSECT SCREEN MAINTENANCE AND REPAIRS

 Do not attempt to alter or modify the product without authorization; otherwise your product warranty will be void and the product may become a hazard of injury or death. Have all repairs done by a qualified technical service provider of the vendor or its authorized reseller.

 When carrying out any work on the insect screen the roller shutter must be secured against unintentional switching on! There is a hazard of injury or death!

Repair	Cleaning
	
<p>Frequently inspect all visible parts of the insect screen for jamming and other types of damage. If any operating abnormality or damage is found, do not attempt to repair the insect screen on your own. Call an authorized professional technical service provider.</p>	<p>In order to ensure long lasting, it is recommended to clean the net surface regularly. Use appropriate cleaning agents for cleaning.</p> <p> Frequently clean the insect screen guide channels to remove all foreign objects and dirt.</p>

#### 5.2.1. MAINTENANCE

Due to the deposition of all kinds of dirt from the atmosphere on the net, which affects the aesthetics of the product and reduces the access of light to the rooms, it is recommended to clean it at least once a month.


Simple maintenance tasks can be performed by the insect screen user and do not require special skills. Maintenance includes functional testing of the insect screen rolling up and down movement.



Maintenance of the insect screen includes cleaning of all visible and accessible components, keeping the screen mesh clean, and removal of all dirt which might accumulate inside of the running tracks. Follow the guidance below:


- Whenever the room in which the insect screen is installed is reDo not clean with any sharp, rough, or abrasive tools or any abrasive or aggressive cleaning products.
- The insect screen mesh and aluminium profiles can be carefully vacuum cleaned or wiped clean with a cloth, some water and some mild, neutral detergent (clean at temperatures between 10°C and 25°C). Do not clean with pressure washers. Protect the insect screen from exposure to aggressive or corrosive chemicals, like potassium nitrate from building mortar, acids, alkalis (lye), and salts, and from mechanical damage. Strong cleaning products may cause corrosion and/or discolouration of the finish coating.
- Do not use any organic or inorganic cleaning products which contain esters, ketones, alcohols, aromatic chemicals, or chlorinated hydrocarbons, or any cleaning products the chemical composition of which is unclear.
- Remove greasy stains (from oil or soot), residues of adhesives, and silicone rubber with chemicals free from petroleum-derived aromatic hydrocarbons. novated or high dust concentration are present on site, try to shield off the insect screen from dirt.

---

 The insect screen may appear wavy, especially if its surface area is large. This is natural and cannot be reasonably claimed as a product defect on warranty.

---

### 5.2.2. REPAIRS

 Do not attempt unauthorized repair or modification of the insect screen structure or movement system. If the insect screen fails to work properly, any of its components requires replacement or the insect screen structure requires any modification, consult the vendor or its authorized reseller, since the relevant servicing must only be done by an authorized product installer.

---


The manufacturer will not be liable for:

- Incorrect tensioning of the net by improper use;
- Loss of aesthetic value by presence of dirt, damage from chemicals, etc.;
- Unauthorized attempts at repairing the insect screen tensioning system or structure;
- Failure of a cord by improper use;
- Damage of the movement system by overloading;
- Installation of the product against its intended use, e.g. in wet rooms and/or near heat sources which cause deformation of the screen;
- Any alteration or repair by the buyer which renders the product damaged;
- Scratching of the finish coating of the product and damage to the insect screen caused during unpacking;
- Other types of damage caused by :
  - incorrect use of the product;
  - careless storage of the product and/or its overloading;
  - failure to comply with the OEM's installation manual;
  - force majeure, including (and not limited to) flooding of the installation site, presence of vermin or other animals, or exposure to high winds, rain, freezing temperatures, or snow. If there is a risk of any of these exposure types, protect the Venetian blind by keeping it open (fully raised).

### 5.3. TECHNICAL INSPECTION

To maintain the full performance and proper operation of the product, periodic technical inspection is recommended (to be done at least once a year). The main objective of technical inspection is to perform functional tests of the product, verify that its structural parts and electrical equipment are complete, in good repair and operational, adjust the movement components, and (if required), replace the parts worn during normal operation.

---

 Do not attempt any technical inspection without authorization; otherwise your product warranty will be void and the product may become a hazard of injury or death. Have all servicing done by a qualified technical service provider of the vendor or its authorized reseller. The product user is only authorized to perform simple maintenance tasks specified in Section "Maintenance" and regular visual inspections of the technical condition of the product.

---


 Systematic inspection of the product helps prevent premature failure.

---

The products should be maintained fully operational and clean to ensure that their operation remains safe to the health and life of the users and compliant with the intended use.

#### Technical inspection steps:

- Verify the product durability and quality of installation fastening;
- Verify that the curtain rolls down and up correctly (and that the limit switches at the end positions are working);
- Verify the durability and quality of all threaded and rivet fasteners;
- Verify the proper tension of the guide cords;
- Inspect the electric motor fastening;
- Inspect the electrical wiring of the Roller Shutter and their connections with the building's electrical installation;
- Test the functioning of the product's movement system components and inspect their technical condition;
- Quality assessment of the net, guide channels, curtain profiles and seals,
- Adjust and correct the foregoing parts and components if required;
- Replace all worn components / parts.

 Use genuine spare parts only. Do not use non-approved spare parts!

## 6. HAZARDS

The Aluprof Roller Shutter (external) is a product which, within the normal and reasonably foreseeable conditions of operation, poses no or negligible hazards acceptable for normal use and it is compliant with stringent requirements for the safety of human life and health.

Do not:


- Completely pull the curtain into the roller shutter box,
- Operate the Roller Shutter if damaged;
- Let anyone or anything remain within the clearance of the opened (rolled up) Roller Shutter;
- Walk under the Roller Shutter which is in motion;
- Let the Roller Shutter be operated by (or keep the remote controls within the reach of ) anyone who requires supervision of an able adult;
- Let non-qualified personnel attempt any electrical servicing, retrofitting or removal of the Venetian blind;
- Lean on the Roller Shutter and insect screen: you may fall out through the window!

## 7. REMOVAL AND END-OF-LIFE DISPOSAL

 The Roller Shutter can only be removed with its mains power supply isolated.

The removal procedure is the reverse of the installation procedure (refer to the Installation Manual).

To dispose of the product at the end of its operating life, it must be disassembled into component parts and the components parts must be segregated for recycling and other waste management types in compliance with the Polish Regulation of the Minister of Environment dated 2 January 2020 and concerning the Waste Catalogue (JoL. 2020.10, as amended).

 In accordance with the provisions of the Directive of the European Parliament and of the Council 2012/19 / EU of 4 July 2012 on waste electrical and electronic equipment (WEEE), it is prohibited to place of used equipment together with other wastes, marked with crossed out wheeled bin symbol. The users are obliged to transfer their used equipment to a designated collection point for proper processing. The marking means, at the same time, that the equipment was put on the market after 13 August 2005. These legal obligations have been introduced to reduce the amount of waste generated from waste electrical and electronic equipment and to ensure an appropriate level of collection, recovery and recycling. The equipment does not contain any dangerous components, which would have any particularly negative impact on the environment and human health.

Pursuant to the Polish Electrical Battery Act of 24 April 2009, "Article 44: The end user shall hand over waste portable rechargeable and non-rechargeable batteries (which may include spent portable rechargeable and non-rechargeable batteries no longer being viable sources of electrical power) to a collector or collection point for waste rechargeable and non-rechargeable batteries". Moreover: "Article 12: It is forbidden to dispose of waste rechargeable and non-rechargeable batteries in the same waste container with other waste". Moreover: "Article 12: It is forbidden to dispose of waste rechargeable and non-rechargeable batteries in the same waste container with other waste"

 Prevent hazards to human and animal health and environmental pollution hazards by disposing of waste rechargeable and non-rechargeable batteries in dedicated containers at designated waste collection points.

Detailed specifications for handling WEEE and waste rechargeable and non-rechargeable batteries are regulated by Polish and EU environmental protection laws.

## 8. PRODUCT MARKING

The Roller Shutter has a product label placed in a visible place.

The label includes, data of manufacturer, type number, number of the harmonized product standard and product properties. The CE marking on the label indicates that the product complies with all directives applicable to the product.

It is recommended to leave the product label undamaged so it can be read in the future.