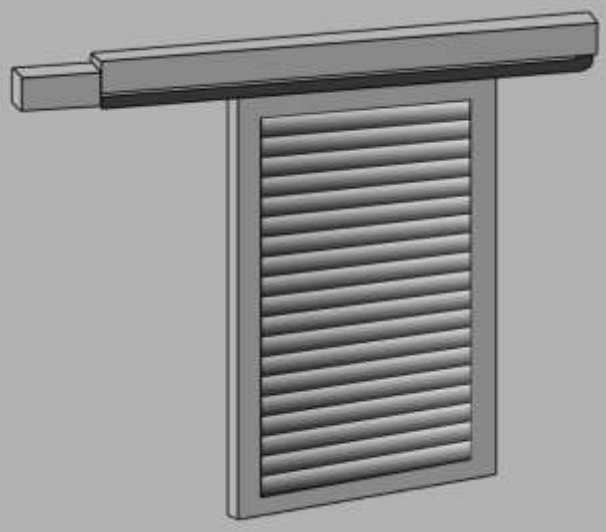
Baier®
Bewegende Licht- und Schattenelemente

Operation and maintenance instructions



Sliding and folding shutters

Product group: Sliding and folding shutters
Version: 3.1
Language: **English**
Original language: German
Document: SLA B 001

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Document information

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Copyright notice

Declaration of conformity

This product fulfills the basic requirements of the applicable European Directives. The conformity was detected. The original of the Declaration of conformity is available as a separate document from the manufacturer.

Technical subjects to change

Our products are always under further development and get improved. The data used for this document represents the state of the product at the time of the creation of this document.

Changings of technical details are excepted. Please use the latest version of the document and contact the manufacturer in case of doubt.

Questions

For further questions please contact Baier GmbH.

Inhaltsverzeichnis

1 Table of content

2 About this document

2.1 Target group

This document addresses qualified personnel. Mounting is only done by technical educated, trained and qualified personnel. Electrical wirings are only done by the specialist.

This document hast to be accessible for the executor, has to be understood and used.

2.2 Objective of this document

This document contains important information for mounting and wiring the product. This document has to be read before all working, handed and explained to the operator as well as kept available all the time as a part of the product.

2.3 Reference to other documents, guidelines and standards

Additional documents like guidelines, standards and laws for product of this art, have to be considered.

Hint

The fabricator has an increased duty to advice the customer. The relevant guidelines, standards and laws have to be considered.

2.4 Used Symbols

Hint

A hint gives important and additional information.

NOTICE

Description of type and source of hazards

Warnings, marked with this symbol, are related to safety.

Disregard may result in property damage.

➢ Steps to avoid hazards.

⚠ CAUTION

Description of type and source of hazards

This symbol indicates a hazardous situation which, if not avoided, could result in minor or moderate injury and/or property damage.

The following levels of warning show the severity and probability of possible hazards, in ascending order.

- CAUTION, coloured yellow
- WARNING, coloured orange
- DANGER, coloured red

➢ Steps to avoid hazards.

List

- symbolizes a list with no specific order

1. symbolizes a list or instruction in specific order

Instruction

➢ symbolizes an action
→ symbolizes a reference
✓ symbolizes the result of the action

3 Safety

⚠ CAUTION

Risk of injury or property damage due to incorrect use

It could cause personal injury or property damage caused by incorrect operation, in particular when it is intended carried out by children

- Prohibit children playing with the control unit
- Keep remote controls away from children
- Do not operate electrically powered units manually if not necessary

3.1 Requirements for operation

Hint

Read the instruction manual before performing the initial operation.

The unit has been fully installed by qualified personnel and tested for proper function and safety. The operator has been instructed about the operation, the maintenance and the dangers originating from the unit. Repairs, dismantlements or other changes to the system will not be done, without the consent of the manufacturer or by qualified personnel.

Persons who operate with the unit, clean, maintain them or execute other activities have to be instructed about the function, features and risks. They have to be informed about the intended use and rules. This document must be made accessible to this people, it have to be read and has to be considered.

The unit may only be used in perfect technical condition. Its not allowed to remove or inactive parts of the unit, in particular safety installations. Faults must be remedied by knowledgeable persons before reuse.

The unit has to be checked periodical, at least once a year. Especially electrical units should be checked more often for regular maintenance and safety.The maintenance must be carried out by trained and by the manufacturer authorized personnel. If the maintenance and security checks are not executed all warranty or product liability claims will be lost. In addition, the system should be cleaned regularly and carried out functional checks, refer to chapter 4.

3.2 Ambient conditions

The product may only be operated under the intended ambient conditions. These can be found in the product-specific technical documentation and already had to be considered when planning.

⚠ CAUTION

Material damage caused by permanent operation in case of frost or other mechanical restrictions

Damage to the equipment in permanent operation if it is mechanically restricted, such as frost, ice, covered by snow, leaves, stones, objects in the operation area or other mechanical obstructions.

- The unit has a power switch-off which is intended to prevent damage by single operation
- Do not operate the unit permanently, do not do frequently operation tests
- Turn off automatic controls such as timers, weather sensors or similar
- Remove mechanical obstructions (for example, in case of defilement) or wait until the ambient conditions change (for example in case of frost and ice)
- Damages by frost and ice are force majeure risk

In general, unless otherwise indicated:

- Electronic controls are designed only for use in dry rooms.
- Motors and drive elements must be protected against direct weather exposure.
- In freezing, high winds and other adverse environmental conditions, the system is only limited functional and not operated permanently.
- The drive concept is usually based on a power disconnection by overload measurement. By cold the power consumption of the motor is growing.
- During commissioning and programming, depending on the parameters set, the controller may switch off (in some temperature ranges).

3.3 Intended use

Sliding or folding sliding shutters are primarily used as a sun protection. They can be used either open, closed or in intermediate positions to regulate the sunlight. They are designed for use in front of a wall or facade. Possibly additional protective devices must be fitted to operate system at direct atmospheric influences. Any excess operation is considered inappropriate use. The system must not be burdened with additional weights.

There is no guarantee that the product works with accessories or operating devices from other manufacturers. Changes to the product that are not explicitly approved by the manufacturer render any warranty or product liability claims.

3.4 Behavior in case of an error

In case of an error, the device must be shut down and the manufacturer must be informed.

Shut down

- Do not operate device
- Disconnect device from power supply
- Inform the manufacturer

4 Functional and operational description

Sliding or folding sliding shutters are primarily as a sun protection. They can be used either open, closed or in intermediate positions to regulate the sunlight. They are designed for use in front of a wall or facade.

4.1 Manual installation

The blind is to move in the desired direction by hand. Usually the systems are built with associated retaining devices at the beginning and end of the line.

Stopper: the so-called bump stop. The blinds can be fixed at this stop buffers.

4.2 Electrical installation

Electrical plants have an electronic control system with power cut-off. This must be adjusted in this way that the drive switches off in case of obstacles and at the end. The appearance of the operating keys "up" and "down" can be different depending on whether the control device is from: the manufacturer, on-site switches, remote controls or other accessories used for the operation. The function is similar in all cases.

Hint

Please check with the manufacturer or the installer of the product in which operating mode, automatic or dead man, the plant is located.

Hint

Through an automatic control the installation can be operated automatically. Turn off automatic control when the system is installed, for example in front of a used door. A lock out is prevented.

4.2.1 Operating mode: automtic

After pressing the actuating button in automatic mode, the drive moves independently "On" or "closed" in the appropriate direction until an obstacle occurs or the end is reached.

4.2.2 Operating mode: dead man

After pressing the actuating button in dead man mode the drive moves only as long as the actuating button "On" or pressing "Close" in the appropriate direction. The system stops soon as the button is no longer pressed, an obstacle occurs or the end position is reached.

4.2.3 Manual emergency operation in electrically induced stop

If, for example, by a power failure, targeted power disconnection or an electrical fault, the system can no longer operate electrically so it can be operated manually.

CAUTION

Material damage due to mechanical failure

By operating a mechanically defective system property damage is possible.

- In a mechanical defect: not operate the system manually or electrically
- The plant does not move abruptly or operate under the influence of force or leverage tools
- Contact the manufacturer

Emergency manual controls

- Check whether the system is mechanically in perfect condition
  → Otherwise contact the manufacturer and do not operate the system
- Push the shutter slowly and smoothly by hand
  → If it is not possible to move it manually, contact the manufacturer
  → Don't , tear on the system, bobbing or use excessive force

Additional information on folding shutters

- In addition, the system to the outwardly projecting pivot points:
  Press outward opening draw or when closing inward
- Pushing or pulling gently to the arrowed points in running direction
- With four-bladed systems can simultaneously be pressed or pushed on both pairs of wings

Figure 1 - Manual emergency operation with folding shutters

Repair

- Check whether the system is mechanically in perfect condition
  → Otherwise contact the manufacturer and do not use system
- Check whether the moving range of the blinds is free and the guides and rails are clean and free of objects.
  → Otherwise, clear the movement area and clean the system
- Switch on mains voltage and check function
- ✓ The system is fully operational again.

5 Maintenance

⚠ CAUTION

Risk of injury or property damage due to movements of the plant

By movements of the plant during maintenance work may cause injury or property damage.

- ➢ Ensure that movements of the hanging may not cause dangerous situations or hinder the maintenance work
- ➢ Optionally shut down plant during maintenance work

For safe and sustainable operation of the sliding shutters, it is necessary to keep this on a regular basis to maintain and in state. For this purpose, the conclusion of a service contract is recommended.

- **In addition, perform the following maintenance regularly:**
  • Regular cleaning of external system components, at least every 6 months
  • Function check, at least every 3 months
  • Maintenance by trained and qualified personnel authorized by the manufacturer, with electrically operated systems check at least once a year.

Hint

Inspection openings, the mechanics and actuators and associated control devices are kept accessible.

Hint

Only use original spare parts from the manufacturer.

5 Maintenance

5.1 Cleaning

A long-standing decorative appearance of the product can only be achieved through regular cleaning. Cleaning should be depending on the degree of soiling, but at least every 6 months.

⚠ CAUTION

Damage to surfaces by cleaners

The use of acidic, alkaline or abrasive cleaners can cause irreparable damage to the surface.

- Use for anodized surfaces only cleaners which has a pH of 5.5 - own or have an approval by GRM RAL GZ 632 7
- When cleaning with polishing materials, the surface must not be scratched.
- When cleaning don't use a knife or steel wool or something like that, which could cause scratches on the surface

What cleaning	How to clean
Glass surfaces	Wipe with a damp cloth
Stainless surfaces	Wipe with non-abrasive cloth
Painted surfaces	Wipe with soap and water
Anodized surfaces	with non-alkaline soap (pH 5.5 - 7)

Table 1 – Cleaning

5.2 Function check

In order to determine a malfunction of the system at an early stage and to see a danger in time a regular, but at least 3-monthly function check has to be done.

Performe a function check

- Perform the common and desired function
  → Contact the manufacturer if there are faults
- Bring the unit into a failsafe and not dangerous state

✓ Function check done properly

5.3 Maintenance hints and checklist

DANGER

Risk of death by electrocution

Threatening injuries, death and property damage by electric shock

- Electrical connections carried out by the expert
- Switch off devices before performing any work and secure the prevent reactivation
- Observe relevant safety and accident prevention regulations

For maintaining performance of an electrically operated system it must regularly be serviced at least once a year. It has to be maintained by trained specialist personnel authorized by the manufacturer.

Hint

Additional national regulations for maintenance and repair of electrical systems must be observed. Possibly, this results in an increase in maintenance intervals.

For maintenance work through the following checklist

and check the corresponding function

Activity / function	**OK?**
Mechanical condition of the plant	☐
Clean the system	☐
Functioning of the system	☐
Visible and carrying screws	☐
Toothed belts, and its tension	☐
Weather protection of the drive	☐
Cabling and electrical connection	☐
Power deactivation	☐
Spray the fitting and bottom guide with silicone, resin and fat-free maintenance oil	☐

Table 2 – Check list

6 Inspection book

The following inspection book is to be completed for each individual installation, retained by the operator. It must be presented and completed at the initial inspection or during the periodic inspection / maintenance

6.1 Object and plant data

Designation	Value
Object name or number	
Exact address of the object name street postal code and city	
Location of the plant in the building department / flat / description	
Contact person for the object name and phone number	
Operator (only if different) name street postal code and city	
Contact / operator name and phone number	
Type: Sliding shutters, folding sliding shutters etc..	
Model / Serial Number if available	
Control devices : button, remote controls, sensor etc..	
Safety devices: power deactivation, emergency stop, sensor etc.	
Other comments / notes	

Table 3 – Object and plant data

6.1.1 Initial test

In the initial test at least the following points must be checked:

6.1.2 Perform initial testing

- ¬ completing the object and installation data
- ¬ completing the items on the maintenance checklist
- ¬ training of the client in the function
- ¬ completing the table below

Remark	
Date of the initial testing	Name of the examiner
Signature operator	Signature examiner

Table 4 – initial testing

6.1.3 Retest

In the re-test at least check the following points:

Perform the retest

- ¬ completing the object and installation data
- ¬ completing the items on the maintenance checklist
- ¬ training of the client in the function
- ¬ completing the table below

Date	Name and signature of the examiner	Special notes	OK?
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐

Inspection book

Date	Name and signature of the examiner	Special notes	OK?
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐

Table 5 – Retest

7 Notes

Table 6 – Notes

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