

User instructions



WAREMA slat roof
Lamaxa L60/L70

Der SonnenLichtManager

Original instructions
To be handed over to the operator.
Please keep for future use.

Table of contents

Table of contents

1	Introduction.....	3
1.1	Information on safety.....	3
1.2	Information on the target group and application of these instructions.....	3
1.3	Explanation of the signal words.....	3
1.4	Basic safety instructions.....	3
2	Product information.....	5
2.1	Intended use.....	5
2.2	Parts description.....	6
2.3	Electrical data.....	6
2.4	Wind resistance Slat roof.....	7
2.5	Wind resistance Integrated awning with easyZIP guidance (optional).....	8
2.6	Resistance against water collection (slat roof).....	8
2.7	Slat roof snow load.....	8
3	Operation.....	8
3.1	Key assignment of slat roof hand-held transmitter(individual unit).....	9
3.2	Key assignment of slat roof hand-held transmitter (LINE).....	11
3.3	Operating the slat roof with the WMS Hand-held transmitter.....	13
3.4	Operating the integrated awning with easyZIP guidance with WMS Hand-held transmitter (if present).....	16
3.5	Operation using WMS Weather station plus (if available).....	16
3.6	Operating the LED strip with the WMS Hand-held transmitter.....	18
3.7	Operating the RGB strip.....	18
3.8	Operating the radiant heater with the WMS Hand-held transmitter (if available).....	19
3.9	Incorrect operation.....	20
4	Service.....	22
4.1	Cleaning, care and inspection activities.....	22
4.2	Maintenance.....	26
4.3	Repair.....	27
4.4	Wear parts.....	28
4.5	What you should know about awning fabrics (if integrated awning with easyZIP guidance is present).....	28
5	Dismantling.....	28
6	Troubleshooting.....	30
7	EC Declaration of Conformity Slat roof.....	31
8	EC Declaration of Conformity Integrated awning with easyZIP guidance.....	32

1 Introduction

1.1 Information on safety

It is important to follow these instructions in the interests of personal safety. Failure to comply with these instructions when operating the product may result in personal injury and/or property damage. Failure to comply with these instructions relieves WAREMA of liability.



Warnings are marked in the instructions with this symbol or a similar symbol.



- Anleitung vor dem Gebrauch des Produktes durchlesen!
- Sicherheits-, Bedien- und Wartungshinweise beachten!
- Include these instructions when passing the product on to a new owner.
- Keep the instructions for use until you dispose of the product.

1.2 Information on the target group and application of these instructions

Target group

These instructions are directed at people who operate, care for and/or maintain the product.

The activities listed in the "Maintenance" chapter are only permitted to be executed by a qualified specialist.

Contents

These instructions are an integral part of the following product:slat roof Lamaxa L60/L70

The instructions contain important information on the operation, care and maintenance of this item. They describe how to operate products with WAREMA standard drives. Other drives and special solutions are not dealt with.

Permissible activities

Performing tasks on the product that are not described in these instructions is not permissible. No other alterations, additions, conversions or maintenance work is to be carried out on the product other than as described in these instructions without the written approval of WAREMA.

1.3 Explanation of the signal words



DANGER

Identifies an imminent danger that may result in death or serious injury.



WARNING

Identifies a potential danger that may result in death or serious injury.



CAUTION

Identifies a potential danger that may result in light injury.



NOTICE

Identifies a potential situation that may result in product or property damage.

1.4 Basic safety instructions

The safety instructions and warnings described here are intended to safeguard your health and to protect the product. These instructions must be read carefully and followed.

Damage resulting from inappropriate use or the failure to follow these instructions is not covered by the warranty. Liability will not be accepted for secondary damage.

General operation

The operation of a faulty product may injure persons and/or damage adjacent parts.

- ▶ Only operate the product if it is in technically perfect condition.
- ▶ If the product makes unusual noises or movements, stop using it immediately and inform a qualified specialist.

Possible risk during operation

Incorrect operation can result in personal injury. The movements of the product can lead to crushing of the limbs.

- ▶ While the product is moving, do not reach between the moving parts.
- ▶ Do not reach into openings on the product while operating the product.

Monitoring duty during operation

Failure to monitor the product while it is moving may result in personal injury and property damage.

- ▶ Keep people and animals out of the projection area.
- ▶ Remove obstacles from the projection area.

Introduction

Operation in the event of a power supply failure

An electrically-operated product cannot be operated without power. A lowered/extended product may be subjected to impermissible loads when bad weather fronts pass over and during power failures. This may also result in serious injury to persons and/or damage to the product.

- ▶ Manual emergency operation or an emergency power supply should be considered for windy regions with frequent power failures.

Obligation to supervise operation of the radiant heater (if present)

If the product is not monitored during operation, objects may be damaged. Heat generation and the failure to maintain minimum distances can scorch surfaces and cause fires.

- ▶ Never leave the radiant heater unattended during operation.
- ▶ The radiant heater should not be equipped and operated with a time switch or any other device that automatically switches the heater on.

Operating note for radiant heater (if present)

The radiant heater becomes hot when it is switched on. Inappropriate conduct can create a burn hazard and/or cause the product to overheat.

- ▶ Do not touch the radiant heater during operation. The radiant heater is hot.
- ▶ Do not place objects on top of the radiant heater, and do not cover the radiant heater with textiles. There is a risk of fire.
- ▶ Do not touch the radiant heater immediately after it was operated. Wait for the radiant heater to cool down before touching it.

Notes on use, LED strips/RGB strips (if present)

Risk of eye injury from incorrect use of LED strips/RGB strips!

- ▶ The LED strips/RGB strips produces a dim light. The maximum brightness is not sufficient for reading.

Accessing the operating element (electrically operated product)

The operating element is not intended for children to use. Children are unable to recognize the danger associated with the product. Persons can become injured from careless use.

- ▶ Do not allow children to play with the locally installed control system or operating element.
- ▶ The hand-held transmitter must be kept out of the reach of children.

Access to the radiant heater (if present)

The radiant heater is not intended for children. Children are unable to recognize the danger posed by the product. Personal injury may occur as a result of careless use.

Use of the basic radiant heater is only permitted if it is equipped with a safety grille. The safety grill prevents direct access to the heating element.

- ▶ Children must be monitored while the radiant heater is switched on.
- ▶ Do not insert items through the safety grille.

Operation in wind

When the slat roof is open, it will only be able to withstand the loads associated with the specified wind speed limits.

The integrated awning with easyZIP guidance (if present) is only able to withstand the loads associated with the specified wind speed limits.

- ▶ When a bad weather front is approaching, the slats of the product must be closed.
- ▶ When a bad weather front is approaching, retract the integrated awning with easyZIP guidance (if present) by hand immediately.
- ▶ The slats of the product must be closed when the specified wind resistance class is exceeded.
- ▶ In case of full-side glazing, the sliding elements must be opened in high winds (over 100 km/h).
- ▶ The integrated awning with easyZIP guidance (if present) must be retracted if the wind speed limits are exceeded.
- ▶ All other movements by the product must be avoided under heightened wind loads.

Operation in wet weather (integrated awning with easyZIP guidance)

Moisture promotes wrinkling and waffling and deteriorates the awning fabric.

- ▶ Wet awning fabric must be dried after it stops raining.

Operation in icy conditions/winter (general procedure)

The operation of the product with temperatures around or below the freezing point can lead to malfunctions and/or damage to property in the case of unfavourable installation and building situations. After an impact with condensation water, rain or snow the product can freeze up with low temperatures.

- ▶ Before operation the product must be freed from snow and ice in order to make it operable.
- ▶ The operation of the product while iced over is forbidden.
- ▶ In case of snow, the slats of the slat roof should be opened.

Operation in winter (product with control system)

Products operated by a control system may start moving at any time and without prior notice. After an impact with condensation water, rain or snow the product can freeze up with low temperatures. Operation of the product may cause damage.

- ▶ When using a control system without an ice alarm, the automatic control mode should be switched off in winter.

Malfunction due to leaves or foreign objects

External sun shading systems are exposed to weather and environmental influences. Depending on the location, leaves and other foreign objects can cause the product to malfunction.

- ▶ Remove leaves and other foreign objects from the beams, the inspection openings for the integrated awnings and the awning fabrics.

Special feature of fabric (if present)

Fabrics can become electrically charged. Contact with people or objects may result in an electrostatic discharge from charged fabric.

Risk of damage to the product

An additional load can damage the product and/or cause it to detach from its mount.

Improper handling may damage the product.

- ▶ Do not hold onto the product or hang any objects on it.
- ▶ It is not permitted to step on the product.
- ▶ Never cover the radiant heater (e. g. with a towel, sheet, etc.).
- ▶ Do not touch the heating element of the radiant heater with bare hands.

Freezing of drainage channels in winter

In winter, snowfall may occur. Heat from the sun will begin to melt the snow. In cold and shady areas, melt water will refreeze. Down pipes may freeze and burst open.

- ▶ In locations that frequently experience icy conditions, the installation of an antifreeze device (e. g. gutter heating) is recommended in gutters and/or pipes.

soiled drainage (for slat roof)

Gutters may clog with leaves, moss and dirt. This may cause the gutters to overflow when it rains.

- ▶ Gutters without or with an insufficient gradient must be inspected and cleaned more frequently.

2 Product information

2.1 Intended use

The following details apply to the following product: slat roof Lamaxa L60/L70

The product is a weather-proof, large-area external sun shading system that may be used for protection against heat and weather and for glare control. The product is used to shade residential and commercial areas.

The rotatable slats can be used to reduce or prevent direct sunlight from the top.

When closed, water is drained to one side via the slats and is drained away via the drainage gutters on the beams and into the poles. For structural reasons, the drainage gutter does not have a slope and water may remain in the gutter for extended periods.

Raindrops can enter the interior under the following circumstances.

- ▶ Heavier rain events than examined by WAREMA.*
- ▶ When the slats are opened after a downpour.
- ▶ Rainwater splashing out of the drainage gutter. This can be largely prevented by splash guards, but cannot be avoided entirely.
- ▶ Condensation that can form under the slats depending on the weather.
- ▶ Strong or changeable gusts of wind
- ▶ Droplets can form on the frame and on the poles.

* Examined rain event;

- ▶ Lamaxa withstands a medium rain event that occurs every 2 years for 5 minutes [(350 l/(s*ha) equivalent to 126 l/(h*m²)]
- ▶ Lamaxa withstands rain class 2 [56 l/(h*m²)]
- ▶ Requirements:
 - a) 1 drainage present for a large Lamaxa (order width x order length) ≤ 16 m².
 - b) 2 drainages for a large Lamaxa (order width x order length) > 16 m².
 - c) Free-standing slat roof Lamaxa. When connected to the wall, facade water may also be an issue, increasing the quantity of water to the point where the tested rain event is exceeded.

Inappropriate use may result in significant danger.

All closures and awnings intended for external use are designed to handle a wind load of 1.1 kN/m² when retracted.

The directive entitled "Wind loads for construction of closures and awnings when retracted – Section 5.1.1" defines the positions at which these products can be installed without requiring special precautions [published by the Bundesverband Rollladen + Sonnenschutz e. V. and ITRS Industrieverband Technische Textilien - Rollladen - Sonnenschutz e. V.].

Product information

Additional loads on the product in the form of hanging objects or guy ropes could damage the product or cause it to become detached from the wall and are therefore not permitted. WAREMA will not be liable for any ensuing damage.

The intended use also includes observing these instructions and adhering to the service requirements they describe.

Optional:

Integrated awning with easyZIP guidance

The product is an external textile sun shading system that may be used for thermal protection, glare control and visual privacy on vertical glass surfaces. The product reduces the incidence of light and optimises the use of solar energy.

The product is intended to be used to protect against the sun, not the rain.

Optional:

LED strips

The product consists of an electronic LED lighting device (warm white light) for outdoor installation. In the slat roof, the power supply of the LED strips is provided via the WMS Dimmer smart.

Optional:

RGB strips

The product consists of an electronic lighting device made of RGB LEDs for outdoor installation. In the slat roof, the power supply of the RGB-LED strips is provided via the RGB Dimmer ZigBee.

Optional:

Radiant heater

The product is designed to generate radiant heat outdoors.

The product is connected to a mains voltage of 230 V/50 Hz via the WMS Plug receiver power.

Optional:

WMS Weather station plus

The product enables the wireless control of sun shading product and is equipped with a sensor for brightness, precipitation, temperature and wind speed. The weather station may be connected to a mains voltage of 230 V/50 Hz and must be set to the value specified for the product.

2.2 Parts description

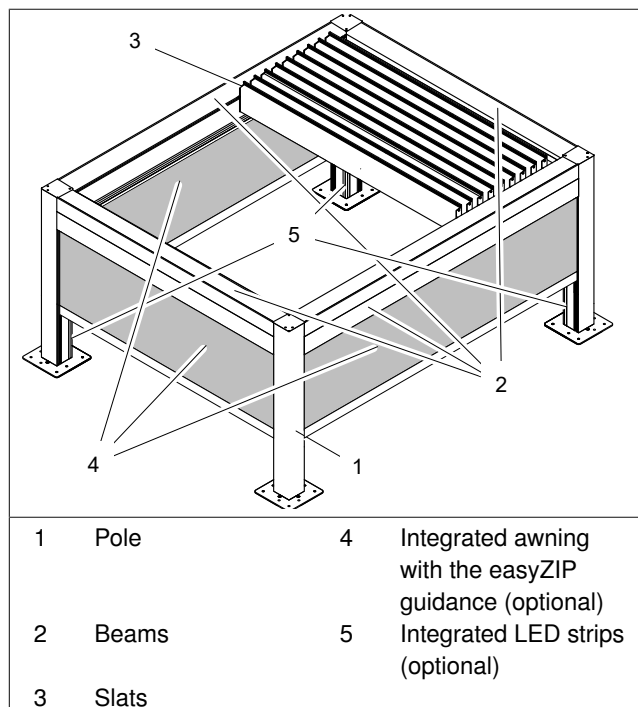


Fig. 1: Parts description using Lamaxa L70 as an example (without wall connection)

2.3 Electrical data

Data for electric drive of slat roof

Parameter	Value
Current consumption [A]	0.9 A
Rated voltage	230 V/50 Hz
Degree of protection	IP 44
Short-term operation (S2)	4 min
Emissions sound pressure level	LpA ≤ 70 dB(A)*

* The sound pressure level LpA in a standard installation of the product on a test stand is ≤ 70 dB(A). This value may vary depending on the specific installation.

Data for electric drive of integrated awning with easyZIP guidance (if present)

Parameter	Value
Current consumption [A]	0.45-0.9 A
Rated voltage	230 V/50 Hz
Degree of protection	IP 44
Short-term operation (S2)	4 min
Emissions sound pressure level	LpA ≤ 70 dB(A)*

* The sound pressure level LpA in a standard installation of the product on a test stand is ≤ 70 dB(A). This value may vary depending on the specific installation.

**INFO**

The table above shows a summary of the permissible motors.

Data for LED strips (if present)

Parameter	Value
Output voltage	24 V
Degree of protection	IP 65
max. power	400 lm/m, 4.8 W/m
Colour temperature	2,900–3,400 Kelvin

Data for WMS Dimmer smart (if present)

Parameter	WMS Dimmer smart
Operating voltage [V AC]	200-240
Frequency [Hz]	50-60
Load current [A] at 230 V AC	6.0
Output voltage [V DC]	24
Switching capacity [W] at 24 V DC with WMS Dimmer smart 60 L (art. no. 2023455)	55
Switching capacity [W] at 24 V DC with WMS Dimmer smart 100 L (art. no. 2023456)	95
Switching capacity [W] at 24 V DC with WMS Dimmer smart 200 L (art. no. 2023457)	150
Degree of protection	IP 54
Safety class	I
Operating and storage temperature [°C]	-20 to +55

Tab. 1: Data for WMS Dimmer smart

Data for RGB strips (if present)

Parameter	Value
Output voltage	24 V
Degree of protection	IP 54
max. power	12 W/m

Data for ZigBee RGB Dimmer smart (if present)

Parameter	ZigBee RGB Dimmer smart 150 W
Operating voltage [V AC]	200-240
Frequency [Hz]	50-60
Output voltage [V DC]	24
Switching capacity [W] at 24 V DC with ZigBee RGB Dimmer smart 150 W (art. no. 2031738)	145
Degree of protection	IP 54
Safety class	I
Operating and storage temperature [°C]	-20 to +55

Tab. 2: Data for ZigBee RGB Dimmer smart 150 W

Data for radiant heater (if present)**Design radiant heater****INFO**

For the radiant heater, an in-line circuit breaker with type C16 is **mandatory**.

Parameter	Value
Mains voltage	230–240 V AC/50 Hz
Power consumption [W]	2200
Degree of protection	IP 65
Safety class	I
Dimensions LxWxH [mm]	900x170x80

Tab. 3: Technical data of the Design radiant heater

Basic radiant heater

Parameter	Value
Mains voltage	230 V AC/50 Hz
Power consumption [W]	1500
Current consumption [A]	6.4
Safety class	1
Degree of protection	IP X4
Total weight	1.65 kg
Dimensions W x H x D	390 mm x 100 mm x 108 mm

Tab. 4: Technical data of the basic radiant heater

2.4 Wind resistance Slat roof

The resistance to wind loads are determined in accordance with EN 13561.



The product has the following wind resistance rating: class 3

The slats can remain in a vertical position up to a maximum wind speed of 48 km/h.

Product information

In winds over 48 m/s, the slats must be closed. With the slats closed, the WAREMA slat roof is designed for a wind load of 1.1 kN/m².

2.5 Wind resistance Integrated awning with easyZIP guidance (optional)



The product has the following wind resistance rating: class 3



INFO

Due to their design, integrated awnings with easyZIP guidance withstand markedly higher wind speeds when lowered than when moving in the DOWN direction.

The supplied product features a new motor with a responsive obstacle detection mechanism. The motor is capable of detecting an excessive wind load while the product is being extended, which means that the product can be stopped before damage can result.

When using a wind sensor (WAREMA recommendation), the wind sensor **must** be set to one level lower than specified in the respective model ([Tab. 5](#)).

- Example: order height ≤ 2500 mm and total width ≤ 4000 mm - set value to 10 m/s

Width in [mm]	Order height in [mm]				
	Up to 1000	Up to 1500	Up to 2000	Up to 2500	Up to 3000
Up to 1000	24	24	24	21	21
Up to 1500	24	24	21	17	17
Up to 2000	24	21	17	17	13
Up to 2500	21	17	17	13	13
Up to 3000	21	17	13	13	13
Up to 3500	21	17	13	13	13
Up to 4000	21	17	13	13	13
Up to 4500	21	17	13	13	13
Up to 5000	21	17	13	13	13
Up to 5500	17	17	13	13	13
Up to 6000	17	17	13	13	10

Tab. 5: Wind speed limits for integrated awnings with easyZIP guidance (details in m/s)

The table values (Beaufort numbers) should be changed in the following cases:

- 1 Movement
 - Lower Reduce value by 1

2.6 Resistance against water collection (slat roof)

The product fulfils performance class 2 in accordance with DIN EN 13561.

Performance class 2 is equivalent to precipitation of 56 l/m² per hour.

The product offers protection against the weather when the slats are closed.

2.7 Slat roof snow load

Lamaxa slat roofs with sizes up to 6x4.5 m have a permissible snow load of max. 50 kg/m² when closed. If the construction limit value of 6x4.5 m is exceeded, the snow load is limited to 45 kg/m².

To prevent the slat roof becoming overloaded, WAREMA recommends moving the slats into an open, middle slat position (90°) when snow starts to fall.

If the slat roof is subjected to a snow load when the slats are closed, the user must avoid loads greater than the above-specified loads of 45 and 50 kg/m² by clearing the snow, for example.

3 Operation



INFO

- Only operate the product if it is in technically perfect condition.
- Do not operate a product if it is damaged. Always contact the specialist dealer and protect the product against being operated as agreed with the specialist.

3.1 Key assignment of slat roof hand-held transmitter(individual unit)

Equipment	Number of channels
Drive – tilting (L60) slat roof/tilting and moving (L70) slat roof	1-channel
Direct LED lighting in beam (optional) ¹	1-channel
Indirect LED lighting in beam (optional) ¹	1-channel
LED lighting in pole (1–4 fields) (optional) ¹	1-channel
Radiant heater field 1 (optional) ¹	1-channel
Radiant heater field 3 (optional) ¹	1-channel
Integrated awning with easyZIP guidance (optional) ²	1 channel/awning

1 The channel is only occupied if the component was contained in the slat roof order.

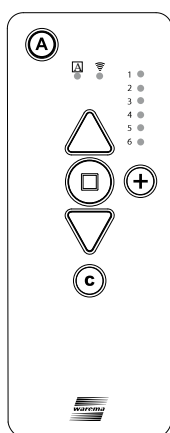
2 The integrated awning with easyZIP guidance is always programmed for the WMS network after it has been installed.

WMS Hand-held transmitter plus



INFO

When fully equipped, not all components can be operated with a hand-held transmitter. The hand-held transmitter has 6 channels.



Channel no.	Assignment (standard) ¹	Assignment (customer-specific)
1	Drive	
2	LED beam direct	
3	LED beam indirect	
4	LED pole	
5	Radiant heater field 1	
6	Radiant heater field 3	

Tab. 6: Standard assignment WMS hand-held transmitter plus (settings at the factory)

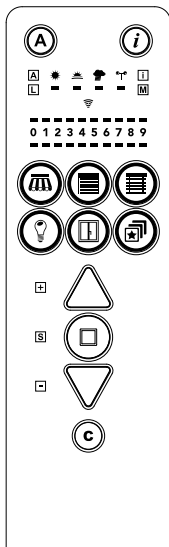
- 1 The channels are assigned at the factory if all specified components are present upon delivery.
The preassigned channel changes if an additional accessory listed before it is not present.


Channel no. ²	Assignment (standard)	Assignment (customer-specific) ³
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction

Tab. 7: Assignment of WMS Hand-held transmitter plus (taught on-site)


- 2 Enter the number of the channel.
3 For better identification, add a clearly identifiable location name, e. g. toward house.

WMS Hand-held transmitter comfort



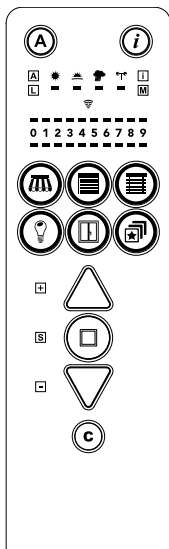
 Channel no.	Assignment (standard)	Assignment (customer-specific)
0	drive	


Tab. 8: Standard assignment of WMS Hand-held transmitter comfort product button for external venetian blind (setting made at the factory)

 Channel no.	Assignment (standard) ¹	Assignment (customer-specific)
0	LED beam direct	
1	LED beam indirect	
2	LED pole	
3	Radiant heater field 1	
4	Radiant heater field 3	

Tab. 9: Standard assignment of WMS Hand-held transmitter comfort product button for light (setting made at the factory)

- The channels are assigned at the factory if all specified components are present upon delivery.
The preassigned channel changes if an additional accessory listed before it is not present.



 Channel no. ²	Assignment (standard)	Assignment (customer-specific) ³
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction

Tab. 10: Standard assignment of WMS Hand-held transmitter comfort product button for awning (setting made at the factory)

- Enter the number of the channel.
- For better identification, add a clearly identifiable location name, e. g. toward house.

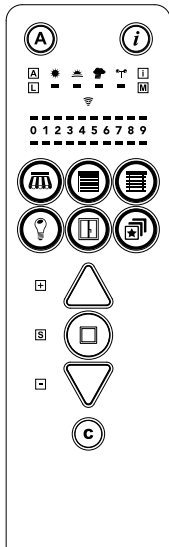
3.2 Key assignment of slat roof hand-held transmitter (LINE)


Equipment	Number of channels
Drive – tilting (L60) slat roof/tilting and moving (L70) slat roof	1-channel
Direct LED lighting in beam (optional) ¹	1-channel
Indirect LED lighting in beam (optional) ¹	1-channel
LED lighting in pole (1–4 fields) (optional) ¹	1-channel
Radiant heater field 1 (optional) ¹	1-channel
Radiant heater field 3 (optional) ¹	1-channel
Integrated awning with easyZIP guidance (optional) ²	1 channel/awning

1 The channel is only occupied if the component was contained in the slat roof order.

2 The integrated awning with easyZIP guidance is always programmed for the WMS network after it has been installed.


WMS Hand-held transmitter comfort



 Channel no.	Assignment (standard)	Assignment (customer-specific)
0	Drive A1	
1	Drive A2 or B1	
2	Drive group A1 and A2 or A1 and B1 ¹	

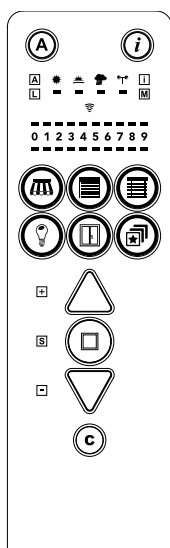
Tab. 11: Standard assignment of WMS Hand-held transmitter comfort product button for external venetian blind (setting made at the factory)

- 1 A group is only formed if both units are executed as L60 or L70.

 Channel no.	Assignment (standard) ²	Assignment (customer-specific)
0	LED beam direct A1	
1	LED beam indirect A1	
2	LED pole A1	
3	Radiant heater field 1 A1	
4	Radiant heater field 3 A1	
5	LED beam direct A2 and B1	
6	LED beam indirect A2 and B1	
7	LED pole A2 and B1	
8	Radiant heater field 1 A2 and B1	
9	Radiant heater field 3 A2 and B1	
10	LED direct/indirect/pole A1 and A2/B1	
11	Radiant heater field 1/3 A1 and A2/B1	

Tab. 12: Standard assignment of WMS Hand-held transmitter comfort product button for light (setting made at the factory)

- 2 The channels are assigned at the factory if all specified components are present upon delivery.
The preassigned channel changes if an additional accessory listed before it is not present.
A maximum of 10 channels can be assigned.



Channel no. ³	Assignment (standard)	Assignment (customer-specific) ⁴
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction
	Awning	Direction

Tab. 13: Standard assignment of WMS Hand-held transmitter comfort product button for awning (setting made at the factory)

3 Enter the number of the channel.

4 For better identification, add a clearly identifiable location name, e. g. toward house.

3.3 Operating the slat roof with the WMS Hand-held transmitter



CAUTION

Risk of crushing from failure to exercise care during operation.

Persons who are located within the projection area may be injured.

- Keep the path of the product clear of people.
- Keep children away from the operating elements.

Ventilation

The air is circulated when the slats are opened.

Rain protection

When the slats are closed, water is drained to the drainage gutters. In heavy rain, water may splash out of the drainage gutter.

If, for slat roof L70, the button is pressed for a **longer** period immediately after it rains, the water may not run off the slats fast enough and this may cause the items under the slats to become wet. Press the button **briefly** at first to tilt the slats gradually and allow the water to run off (drainage setting).

Sun shading system

By setting the slat angle, direct sunlight from the top can be prevented.

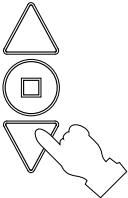
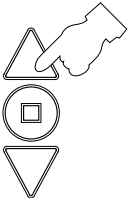
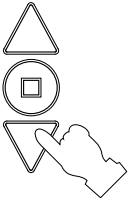
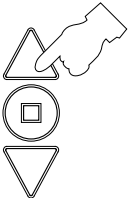
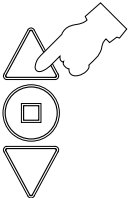
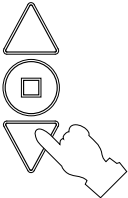
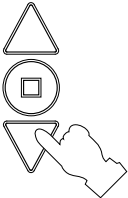
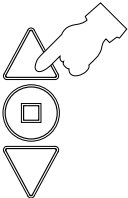
Slat roof L60



INFO

Select the right channel for the product on the hand-held transmitter.

The exact description of the hand-held transmitter can be found in the accompanying instructions for the hand-held transmitter.

Operating Lamaxa L60	Tilt the slats (close the slats)	 <p>Press the DOWN button briefly.</p>	 <p>Press the UP button briefly.</p>	 <p>Press the DOWN button briefly.</p>	 <p>Press the UP button briefly.</p>
	Tilt the slats (open slats)	 <p>Press the UP button briefly.</p>	 <p>Press the DOWN button briefly.</p>	 <p>Press the DOWN button briefly.</p>	 <p>Press the UP button briefly.</p>

Slat roof L70



INFO

The tilting process in slat roof L70 is executed after the product is fully extended (lower limit position). The motors interlock mutually, which prevents product damage from occurring. As soon as the slats are fully extended, the slats can be tilted or are tilted automatically.

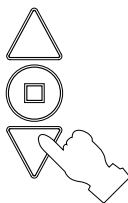
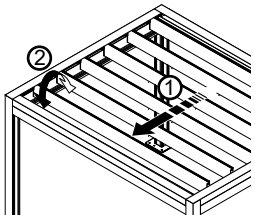
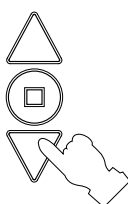
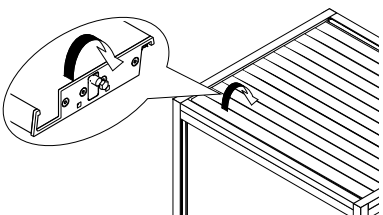

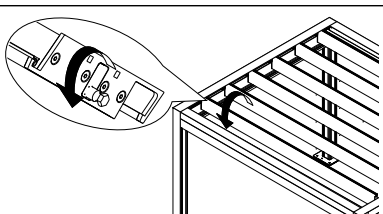
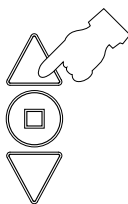
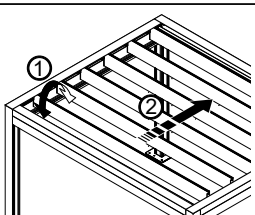
Before they are retracted, the slats are always tilted to the vertical position (90°).



INFO

Select the right channel for the product on the hand-held transmitter.

The exact description of the hand-held transmitter can be found in the accompanying instructions for the hand-held transmitter.

Operating Lamaxa L70	Extending the slats and tilting them briefly	 <p>Press and hold the DOWN button.</p>	→	 <p>The slats move to the lower limit position and then tilt automatically.</p>
			→	
			→	
	Slats vertical and retracting them	 <p>Press and hold the UP button.</p>	→	 <p>The slats automatically tilt to the 90° position and move to the upper limit position.</p>

Operation

3.4 Operating the integrated awning with easyZIP guidance with WMS Hand-held transmitter (if present)



CAUTION

Risk of crushing from failure to exercise care during operation.

Persons who are located within the projection area may be injured.

- Keep the path of the product clear of people.
- Keep children away from the operating elements.



INFO

Select the right channel for the product on the hand-held transmitter.


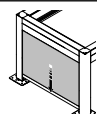

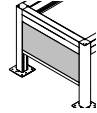

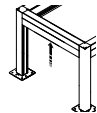
The exact description of the hand-held transmitter can be found in the accompanying instructions for the hand-held transmitter.



INFO

The product has an upper and lower limit position. The product automatically stops at this point.

The product can be stopped in any position.

Operating the integrated awning	Lowering	 <p>Press the DOWN button briefly .</p>	→	 <p>The awning lowers.</p>
	Stopping (if necessary)	 <p>Press the STOP button briefly.</p>	→	 <p>The movement is stopped.</p>
	Raising	 <p>Press the UP button briefly.</p>	→	 <p>The awning moves up.</p>

3.5 Operation using WMS Weather station plus (if available)

- Slat roof
- Integrated awning with easyZIP guidance



INFO

Use the values specified here and not those in the accompanying instructions for the WMS Weather station plus.

Note: The wind monitoring overrides all other control modes and cannot be overridden manually (safety function). The wind monitoring can be deactivated via WMS WebControl pro without a password (per app and browser). After the end of the safety function, the comfort modes are active again and may trigger a new movement.

Summer (May - October)							
ZIP				Lamaxa			
	Limit value	Control mode	Position ZIP	Limit value	Control mode	Position L60	Position L70
Wind	> 13 m/s	On	Retract	> 13 m/s	On	Tilt the slats horizontally	Extend the slats if necessary and tilt horizontally
	> 48 km/h			> 48 km/h			
Rain	No limitation	Off	-	> Class 2	On	Tilt the slats horizontally	Extend the slats if necessary and tilt horizontally
Sun	Sun	On	Bottom	Sun	On	Tilt the slats 45° (50%)	Tilt the slats 45° (50%)
	Cloud	On	Top	Cloud	On	Tilt the slats vertically	Tilt the slats vertically
Dawn/dusk				Not available			
Icy conditions	Not available		Retract	Not available		Tilt the slats vertically	Extend the slats if necessary and tilt vertically
Snow	Retract			> 50 kg/m ²	Off	Tilt the slats vertically	Extend the slats if necessary and tilt vertically

*1) Can be adjusted manually

*2) Note! When using the sun control, the roof can open automatically after rain. If the slats are tilted too quickly, water may run off of the slats in an uncontrolled manner.

Winter (November - April) ^{*3)}							
ZIP				Lamaxa			
	Limit value	Control mode	Position ZIP	Limit value	Control mode	Position L60	Position L70
Wind	> 13 m/s	On	Retract	> 13 m/s	Off	Tilt the slats horizontally	Extend the slats if necessary and tilt horizontally
	> 48 km/h			> 48 km/h			
Rain	No limitation	Off	-	> Class 2	Off	Tilt the slats horizontally	Extend the slats if necessary and tilt horizontally
Sun	Sun	On	Bottom	Sun	On	Tilt the slats 45° (50%)	Tilt the slats 45° (50%)
	Cloud	On	Top	Cloud	On	Tilt the slats vertically	Tilt the slats vertically
Dawn/dusk				Not available			
Icy conditions	Not available		Retract	Not available		Tilt the slats vertically	Extend the slats if necessary and tilt vertically
Snow	Retract			> 50 kg/m ²	Off	Tilt the slats vertically ^{*4)}	Extend the slats if necessary and tilt vertically ^{*4)}

*3) In the winter months, the control function must be deactivated (only possible using WMS WebControl pro, the app or the browser). The end customer is fully responsible for compliance with the use conditions stipulated by WAREMA.

*4) The wind speed limit has top priority. If the slat roof is also covered in snow, the snow may need to be cleared off of the roof.







3.6 Operating the LED strip with the WMS Hand-held transmitter



INFO

Select the right channel for the product on the hand-held transmitter.

The exact description of the hand-held transmitter can be found in the accompanying instructions for the hand-held transmitter.

Operating the light	Switching on/ dimming ¹	 <p>Press the UP button briefly.</p>	→	 <p>Light goes on or becomes brighter</p>
	Dimming ¹	 <p>Press the DOWN button briefly .</p>	→	 <p>The light goes on or becomes dimmer</p>
	Switching off	 <p>Press the STOP button briefly.</p>	→	 <p>The light goes off.</p>

¹ The LED strip/RGB strip is switched on with the brightness value last used.

3.7 Operating the RGB strip



INFO

Operate the RGB strips with the Philips Hue app or a separate RGB hand-held transmitter.

The exact description of the hand-held transmitter can be found in the accompanying instructions for the hand-held transmitter.

3.8 Operating the radiant heater with the WMS Hand-held transmitter (if available)



CAUTION

Risk of burns on hot surfaces!

The surfaces of the product are a burn hazard while the product is in use and after it has been switched off.


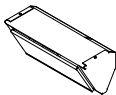

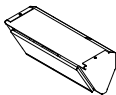
- Wait for the radiant heater to cool down before touching it.



INFO

Select the right channel for the product on the hand-held transmitter.

The exact description of the hand-held transmitter can be found in the accompanying instructions for the hand-held transmitter.

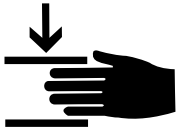
Operating the radiant heater	Switching on	 <p>Press the UP button briefly.</p>	→	 <p>The radiant heater is switched on.</p>
	Switching off	 <p>Press the DOWN button briefly .</p>	→	 <p>The radiant heater is switched off.</p>

3.9 Incorrect operation

Accessibility of the operating elements


- Never let children play with the operating elements of the product, such as the hand-held transmitter or switch.
- Keep the hand-held transmitter out of reach of children.

Danger of crushing, shearing and entanglement


	<ul style="list-style-type: none">■ While the product is moving, keep persons away from the product.■ While the product is moving, do not reach between the moving parts. <p>Products operated by means of a control unit may start moving at any time and without prior notice. Inform people, including children, who may be located in the vicinity of the product about the danger involved with the product to eliminate the risk.</p>
---	--

Operation during a storm

Slat roof:


	<p>The product must be closed by hand before a bad weather front passes over, even if a control unit is being used.</p> <p>In case of full-side glazing or sliding elements, the sliding elements must be opened in high winds (over 13 m/s).</p> <ul style="list-style-type: none">■ When a bad weather front is approaching, close the slats of the product by hand.■ In case of full-side glazing or sliding elements, open the sliding elements at wind speeds of 13 m/s to protect the slat roof.
--	---

Integrated awning with easyZIP guidance

	<p>The product must be closed by hand before a bad weather front passes over, even if a control unit is being used.</p> <ul style="list-style-type: none">■ Retract the product if the wind speed limit is exceeded.■ When a bad weather front is approaching, raise the product by hand.
--	--

Operation in wet weather

Slat roof:

	<ul style="list-style-type: none"> ■ Close the slats of the product in rain.
---	---


Integrated awning with easyZIP guidance:



NOTICE

Deterioration of awning fabric due to moisture!

Moisture promotes wrinkling and waffling.

	<ul style="list-style-type: none"> ■ When a bad weather front is approaching, raise the product by hand. ■ Once the rain has stopped, awning fabric that has become wet should be lowered so that it can dry.
---	---

Operation in cold weather or winter




NOTICE

Product damage from forceful operation!

After an impact with condensation water, rain or snow, the product can freeze up at low temperatures.

- Do not use the product under icy conditions. The product may be used again after thawing.
- When using a control unit without an ice alarm, automatic operation should be deactivated in winter.

	<ul style="list-style-type: none"> ■ Do not operate the product if it is frozen. ■ Open the slats of the product if it starts snowing. ■ Switch off the automatic control in winter.
---	---

Cleaning the drainage




INFO

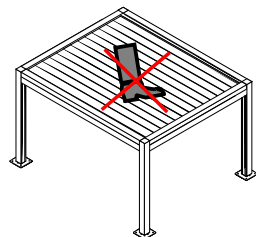
If the drainage gutter is installed without an inclination, it must be inspected and cleaned more frequently.

Drainage gutters and drains may clog with leaves, moss and dirt. This may cause the drainage gutters to overflow when it rains. If there are trees in the vicinity, it is better to clean the gutter after all of the leaves have fallen.

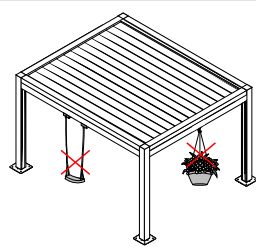
In autumn, leaves may have to be removed more frequently, depending on the location and position.

	<ul style="list-style-type: none"> ■ Clean out any old leaves and dirt that may have collected in the drainage (drainage gutter and downpipe).
--	---

Stepping on the product

	<ul style="list-style-type: none"> ■ Do not step on the product.
---	---

Additional load on the product

	<ul style="list-style-type: none"> ■ Do not attach objects to the product (such as hanging flower pots, swings, hammocks, etc.).
--	---

4 Service

Use of the product in a manner that is not intended or failure to care for and check the product improperly render the product warranty from WAREMA void.

Proper and regular cleaning and maintenance and the exclusive use of original spare parts are essential for trouble-free operation and a long product service life.



INFO

When performing product maintenance or working in the immediate vicinity of the product, e. g. when cleaning windows, product movement must be prevented.

A monitored overriding locking mechanism must eliminate all possible operation.



WARNING

Risk of injury from operation of the product when it is out of sight!



The product may unexpectedly start moving during cleaning or maintenance.

- De-energise the product and secure it against being switched on again.



CAUTION

Risk of injury from falling off the climbing aid!

Climbing aids (e. g. ladders, scaffolding, etc.) may tip over if improperly erected.

- Position climbing aids on level and firm ground.



CAUTION

Risk of injury from falling!

There is a risk of falling during maintenance work.

- Take suitable safety precautions to prevent or arrest falls.



DANGER

Danger of breaking through slats!



When work is performed on the outside of slat roofs, there is a danger of breaking through the slats. Injuries may result from falling.

- Do not step onto the slat roof.

For integrated awning with easyZIP guidance (if present):



INFO

The awning fabric can become electrically charged. Contact with people or objects may result in electrostatic discharge from charged fabric.

4.1 Cleaning, care and inspection activities

Over time, a film of dirt will form on the surfaces of sun shading products due to environmental influences.

Due to the effects of solar radiation, this soiling can become permanently burnt into or stuck to the surface coating. These factors reduce the value and may impair the proper functioning of the sun shading product.

To enhance the durability of the sun shading product, its surfaces should be cleaned regularly or **at least once a year**.

For awning fabrics, the necessary cleaning interval depends on the degree of soiling.

In certain ambient conditions, such as those found near industrial zones and close to heavy road traffic, the sea (salty air) or swimming pools (air with chlorine), more frequent cleaning may help to protect against surface damage caused by these conditions and against the heightened risk of corrosion.



INFO

The activities described in this section can be performed by the operator. It is important to abide by the interval of one year.

Purpose of cleaning and care

The benefit provided by regular and proper cleaning and care is that the value of the product is preserved and its service life extended. The purpose of repeatedly cleaning the product is to preserve the well-maintained appearance of both the building and the product.

Results of cleaning



NOTICE

Product damage from incorrect cleaning!

Incorrect cleaning procedures may result in damage to the product or product parts. Surfaces and textures may be permanently altered (e. g. scratches).

- Do not use high pressure washers, steam washers, abrasive sponges, abrasive cleansers, or aggressive cleaning agents or solvents such as alcohol or naphtha.
- Do not use chlorinated cleaning agents on or near the product.
Note in addition for integrated awning with easyZIP guidance (if present).
- Do not wash the awning fabric in a washing machine or other similar equipment.
- Do not rub the awning fabric excessively with a hard brush/sponge or other hard objects. This may damage the surface.
- Do not raise the awning fabric if it is damp. This may cause moulding or spotting.

Under no circumstances will claims for damages arising from these cleaning instructions be honoured, since the effectiveness of these measures depends on a large number of factors that vary widely from case to case.

The effort required for cleaning and the cleaning results themselves depend on the degree of soiling. Surfaces that have been exposed to the influences of weather over many years but have not been cleaned are difficult, if not impossible, to restore to their original condition.

General information on cleaning



WARNING

Risk of injury from electric shock on a motorized product!

If a live component (e. g. motor) comes into contact with water, a short circuit may occur or electricity may flow.

- Keep water away from all live components.



Tip/recommendation

Using the WAREMA cleaning glove together with WAREMA cleaning agent concentrate for sun shading products is an ideal way to properly clean product surfaces.

The WAREMA cleaning agent for sun shading products can be used for metal and plastic surfaces and is certified by the GRM (Gütegemeinschaft Reinigung von Fassaden e.V.) (certification no. 142, 242, 342, 442, 542).



To order, contact your WAREMA dealer.



For further advice and technical questions regarding cleaning, please contact the Association of German Sun Shading Product Cleaners (Verband Deutscher Sonnenschutzreiniger e.V., www.vds-sonnenschutz.de).

Preparing for cleaning

- When cleaning the product, protect adjacent areas against soiling.



INFO

Cleaning will vary with the fabric quality and the type of coating (e. g. special coating such as aluminium vapour coating). Test the procedure in a less visible area first. If you have any questions, please contact your WAREMA dealer for further information.

Aids required for cleaning:

- ▶ Whisk broom (soft bristles)
- ▶ Vacuum cleaner (optional)
- ▶ Bucket
- ▶ Low-calcium water (recommendation)
- ▶ WAREMA cleaning agent for sun shading products (do not use on wood products)
- ▶ WAREMA cleaning glove
- ▶ Cotton cloth
- ▶ Additionally for awning fabric (if integrated awning with easyZIP guidance is present)



INFO

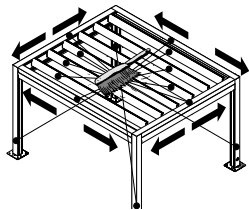
Clean step-by-step from the rear to the front.

- 1 Rain hood (if present)
- 2 Beams
- 3 Slats
- 4 Drainage gutter
- 5 Pole

Additional cleaning for integrated awning with easyZIP guidance (if present).

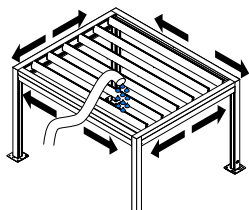
- 6 Awning fabric (as needed)
- 7 End rail

Performing preliminary cleaning



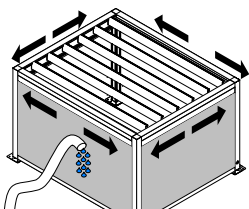
- Remove any loose soiling from the entire product (e. g. dust, leaves). A whisk broom or vacuum cleaner can be used for this.
- Do not forget to clear the opening for the slats.

or



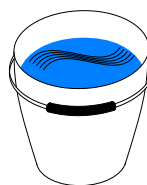
- If the product is installed outside (outdoors), you can also rinse off loose dirt with clear water at a low water pressure.
- Before you start, remove any objects that must not get wet.

and (if integrated awning with easyZIP guidance is present)

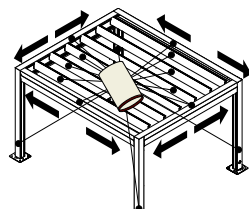


- If the product is installed outside (outdoors), you can also rinse off loose dirt with clear water at a low water pressure.
- Before you start, remove any objects that must not get wet.

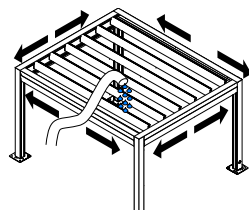
Performing detailed cleaning



- Prepare a bucket with water and WAREMA cleaning agent for sun shading products. Note the dosing quantities specified by the cleaning agent manufacturer.
- Wet the WAREMA cleaning glove.



- Clean the product components with a wiping motion. Repeat the procedure as needed based on the degree of soiling.
- Clean the lateral opening for the slats on the beams to eliminate the possibility of malfunctions, e. g. due to leaves.
- Clean the drainage gutters and drainage pipes to remove any blockages, e. g. due to leaves.



- Remove the detached soiling before drying.

Cleaning the awning fabric without water (if integrated awning with easyZIP guidance is present)

In some cases, smaller spots and isolated dirty streaks can be cleaned without water.

- Dab off/strip away soiling with adhesive tape. and/or
- Remove soiling with a non-marking rubber eraser (by applying light pressure).
- Remove soiling with a vacuum cleaner if necessary (on the low setting).

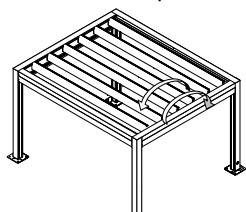
Cleaning the awning fabric with water (if integrated awning with easyZIP guidance is present)

Soiling or crusting spread over a large area must only be removed when wet, in order to keep the dirt from being rubbed into the fibres and spaces between the fibres.

- Add a 5-10% mild washing detergent to lukewarm water (max. 40 °C). Build up a lather by squeezing out a sponge several times.
- Apply the lather to the soiled locations and let it soak in for 15-20 minutes.
- Wet the awning fabric with clear water at a low water pressure.
- Repeat the procedure as needed based on the degree of soiling.

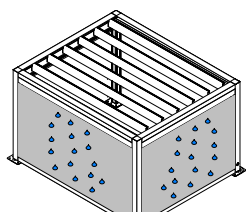
Drying the product

- extend the product into the lower limit position.



- Open and close the slats to allow the water to drip off.

and (if integrated awning with easyZIP guidance is present)



- Leave awning fabric that has become wet to air-dry.



INFO

To prevent scale marks from forming around dried water droplets, the surfaces of the product can be rubbed dry using a microfibre or cotton cloth.

Re-impregnating the awning fabric (if integrated awning with easyZIP guidance is present)



INFO

The cleaning agent and fabric impregnation have opposing effects. By thoroughly rinsing off the cleaning agent with clear water, you can preserve the water-repellent property of the awning fabric for a longer time.

Every time the fabric is cleaned, the original protective function of the awning fabric is slightly diminished. Depending on the fabric type, a reimpregnation can renew the water-repellent effect and is therefore recommended.

Only use impregnating agents that are suitable for fabrics.

Re-impregnation cannot restore the awning fabric to its original new condition.

Cleaning the drain



INFO

If the drainage gutter is installed without an inclination, it must be inspected and cleaned more frequently.

Drainage gutters and drains may clog with leaves, moss and dirt. This may cause the drainage gutters to overflow when it rains. If there are trees in the vicinity, it is better to clean the gutter after all of the leaves have fallen.

In autumn, leaves may have to be removed more frequently, depending on the location and position.



- Clear leaves and soiling out of drainage gutters, the drop tube and the outlets.

Cleaning the radiant heater (if present)



NOTICE

Product damage from incorrect procedure!

Finger prints on the heating element may shorten the product service life.

- Do not touch the heating element of the radiant heater with bare hands.
- Remove dust from the surfaces using a soft brush or a feather duster.
- Wipe off the heating surface of the Design radiant heater with the moistened cleaning glove.
- Remove the safety grille to clean the reflector on the Basic radiant heater.
- Wipe off the reflector with a soft, lint-free cloth on the Basic radiant heater.

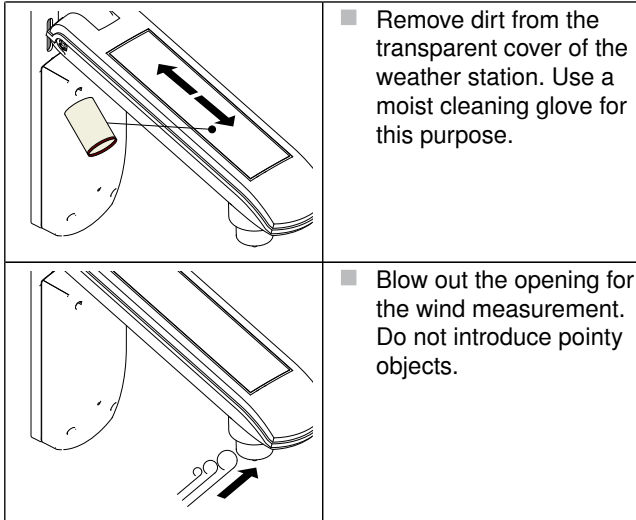
Cleaning the weather station (if available)



INFO

The weather station must be cleaned every three months to ensure the measured values are accurate and ensure operating safety and reliability.

Note the separate instructions for the weather station.



■ Remove dirt from the transparent cover of the weather station. Use a moist cleaning glove for this purpose.

■ Blow out the opening for the wind measurement. Do not introduce pointy objects.

Inspection activities/examine the product during cleaning



INFO

Wear and damage to the operating element or product as well as damage to the mounting substructure may impair the product and result in secondary damage.

If you should notice any irregularities during the visual check of the product, proceed as described below.

- Take the product out of service.
- Have any damage repaired by a qualified specialist.
- Check the product regularly for visible wear, damage and proper functioning (visual check).
- Check that the fixing of the supporting elements (e. g. consoles) is firmly connected to the structure and/or the floor (visual check).
- Remove all foreign objects and any soiling from the product components and the guide rails.
- Check the charge status of the batteries of supplementary accessories, such as the hand-held radio transmitter and wind sensor, and replace if necessary.
- Check the drainage gutters, drop tubes and outlets for clogging and clean.



INFO

To ensure proper functioning and your continued enjoyment of the product, WAREMA recommends professional maintenance.

Information on this can be obtained from your WAREMA contracting partner or at www.warema.de/service.

4.2 Maintenance



The maintenance tasks must only be performed by a qualified specialist. We recommend signing a service agreement.

Service is a preventative maintenance and contributes to keeping a product functional as long as possible.



WARNING

Risk of injury caused by irregular maintenance!

Operating safety may be seriously diminished, and the product may fail. People can be injured from contact with damaged parts.

- Have the product checked regularly by a qualified specialist for signs of wear and damage, e.g. to electrical lines.



CAUTION

Risk of injury from inadequate product knowledge!

Familiarity with the functions and design of the product is required to ensure that it can be worked on safely. Insufficient product knowledge can result in dangerous situations.

- Have service tasks performed by a qualified specialist.
- Check the product for visible wear and damage. If necessary, make a recommendation to the owner.
- Check the fixing of the bearing elements (e. g. consoles, guide elements) for a tight fit. If necessary, make a recommendation to the owner.
- Perform a functional check, and inspect the limit positions of the product. Adjust the limit positions if necessary (see the installation instructions and/or setting instructions).

4.3 Repair



CAUTION

Personal injury resulting from inappropriate repairs!

Familiarity with the functions and design of the product is required to ensure that it can be worked on safely. Insufficient product knowledge can result in dangerous situations.

- The product should only be repaired by a qualified specialist.



INFO

To ensure that your product continues to function properly, and to prevent the loss of its approved status, only use original spare parts.

To order, contact your WAREMA dealer.

4.3.1 Exchanging the heating element (only basic radiant heaters)



De-energise the radiant heater before performing any work on it.

- Disconnect the product from the power supply.
- Secure the product against being switched on again and verify that it is de-energised.



NOTICE

Product damage due to incorrect procedure when replacing the heating element!

Finger prints on the heating element may shorten the product service life.

- Never touch the heating element with bare hands.
- To change the heating element, wear soft gloves or use a soft cloth.

Removing the safety grille

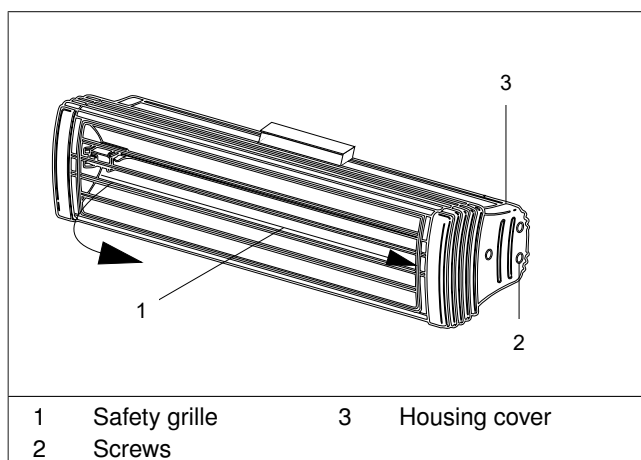


Fig. 2: Removing the safety grille

- De-energise the radiant heater.
- Let the radiant heater cool down.
- Disconnect the radiant heater by releasing the connecting screw from the wall or bearing tube holder.
- Place the radiant heater on a suitable soft surface.
- Shift the safety grille [1] sideways until one side is free and then pull the safety grille [1] out forward.
- Unscrew the screws [2] on both sides on the housing cover [3] using a suitable tool.
- Keep the parts for use later on.

Disconnecting the line

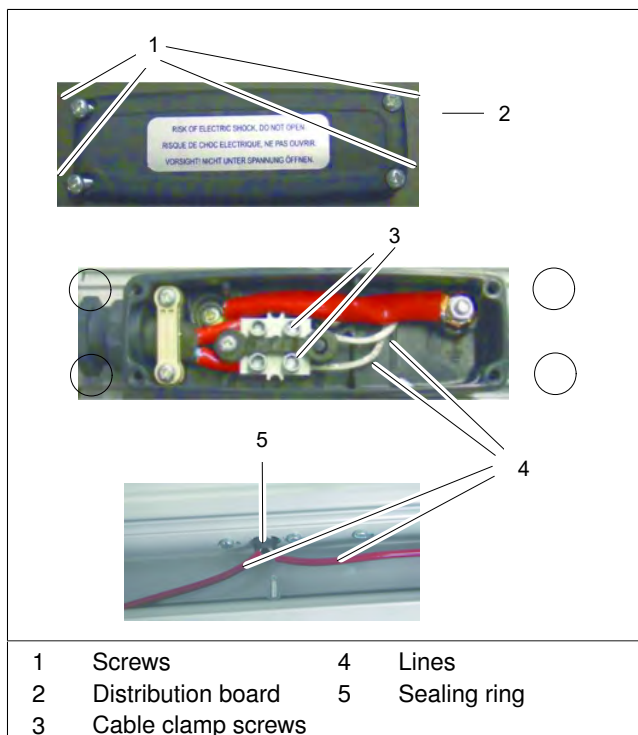


Fig. 3: Disconnecting the line

- Unscrew the screws [1] on both sides on the distributor [2] using a suitable tool.
- Release the screws [3] of the cable clamp and remove the lines [4].
- Pull the lines [4] through the sealing ring [5] into the inside of the housing.

Replacing the heating element



NOTICE

Product damage from incorrect procedure!

Finger prints on the heating element may shorten the product service life.

- Do not touch the heating element of the radiant heater with bare hands.
- Only touch and insert the heating element using gloves.
- After inserting the heating element, wipe it off with a soft cloth.

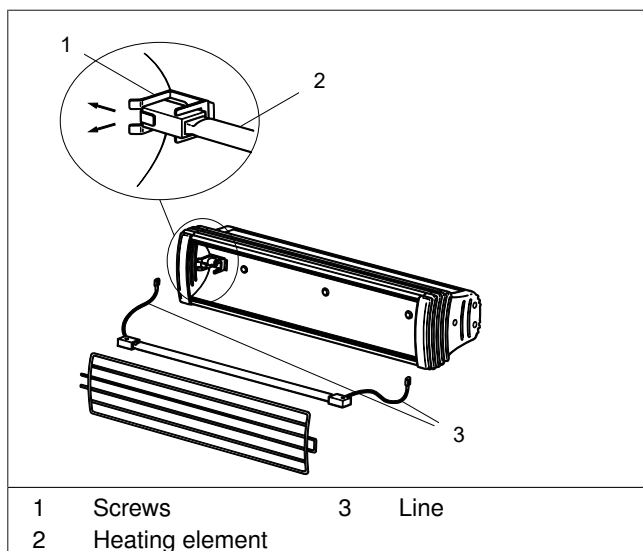


Fig. 4: Replacing the heating element

- Push the clamps [1] on the left and right outward simultaneously until the heating element is free.
- Pull the heating element [2] forward and pull the lines [3] out of the housing.
- Insert the new heating element in reverse order.
- Connect the lines.



DANGER

Short circuit!

If the sealing ring is not installed properly, water can enter into the distributor and cause a short circuit.

- Only mount the distributor with a sealing ring.
 - Carefully position the sealing ring.
 - Check that the sealing ring has been installed correctly.
- Install the safety grille.
 - Install the radiant heater.

4.4 Wear parts

Wear parts for basic radiant heater (if present)

- Heating element

4.5 What you should know about awning fabrics (if integrated awning with easyZIP guidance is present)

Technical fabrics may exhibit certain characteristics due to production and sizing that may appear to the operator to be "faults".

The blemishes described below have no influence on the usability and durability of the awning fabric [excerpt from the Guideline for the Evaluation of Preassembled Awning Fabrics – published by the ITRS Industrieverband Technische Textilien Rollladen - Sonnenschutz e. V.]:

Wrinkles and folding lines

Wrinkles can be produced when the fabric is assembled (cut and sewn) and when it is folded. Surface effects (shifts in pigmentation) can occur in the wrinkles. When viewed against the light, these resemble dirty marks (especially on light-coloured fabric).

Chalk lines

These are light stripes of the impregnating material on the fabric surface. They result from handling the fabric during production and assembly of the units. Although the fabric is handled with special care, these effects cannot be fully avoided in dark fabrics.

Waviness in the seams and fabric panels

As the fabric is wound onto and off of the shaft, it is tightened more at the hems, seams and panels than between the seams. The resulting tension in the fabric can lead to waviness (e. g. waffle or fishbone patterns) that "digs" into the fabric. The waves are visible when the unit is open.

Waffling

Because of the production method, waffling may form under certain weather conditions and in certain fabric sizes. This effect is more visible in unfavourable lighting conditions. The formation of waffling is accelerated and enhanced through wetness (humidity, rain). If a fabric that has been "softened" in this way is retracted, waffling and wrinkles can become particularly pronounced.

Weave flaws

Spinning of the yarns as well as warping in the weaving mill and the weaving process itself is executed under tension. The yarn may break. This will lead to knots. Irregular thread thicknesses are seen as light areas or burls in the fabric.

5 Dismantling



CAUTION

Risk of injury due to incorrect dismantling!

A lack of appropriate knowledge when dismantling the product can lead to injuries and/or damage to the adjacent parts.

- Have the units dismantled by a qualified specialist.

Dismantling of the product must be undertaken by a qualified specialist. Ask WAREMA for any missing documents before commencing maintenance.

**WARNING**

Electric shock!



When working in the immediate vicinity of potentially live parts, such as electrical lines, contact may result in an electric shock.

- De-energise the product and secure it against being switched on again.

Disposal

Should the product no longer be required, ensure that it is disposed of correctly in accordance with the relevant regulations.



Components identified in this manner should not be disposed of with the household waste.

6 Troubleshooting



INFO

- Problems described here without reference to a qualified specialist or certified electrician may be resolved independently.
- All other problems listed must be handled by a qualified specialist or certified electrician.

Fault: The motor is not functioning			
	Cause	Remedy	Note
	The thermal protection switch on the motor was triggered	Wait 10 to 15 minutes and then try again.	
	A higher-level control command is present	Wait for on/off delay and then try again.	
	No voltage is applied.	Check the power supply.	Have checked by a certified electrician.
	Motor is faulty	Replace the motor.	Replacement by a qualified specialist

Fault: The product does not move to the desired limit position			
	Cause	Remedy	Note
	The motor limit positions are incorrect	Readjust the motor.	Adjustment by a qualified specialist

Fault: The drainage gutter runs over or water does not drain			
	Cause	Remedy	Note
	There is dirt in the drainage gutter.	Removing the dirt	
	There is dirt in the downpipe.	Removing the dirt	

Fault: The radiant heater is not generating heat			
	Cause	Remedy	Note
	The heating element is faulty.	Change the radiant heater.	
	The radiant heater is faulty.	Change the radiant heater.	
	The radiant heater is switched off.	Switch on the radiant heater via the hand-held transmitter.	

7 EC Declaration of Conformity Slat roof

The product:

WAREMA slat roof

Type:

Lamaxa L60
Lamaxa L70
Lamaxa L60 Free
Lamaxa L70 Free
Lamaxa L50

Purpose:

External sun shading system

Meets the provisions of **Machinery Directive 2006/42/EC** in the case of motor drives.

In particular, the following harmonised standards were used:

DIN EN 13561

External blinds and awnings - Performance requirements including safety

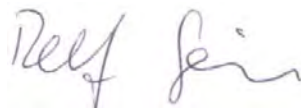
DIN EN 60335-2-97

Household and similar electrical appliances - Safety - Part 2-97: Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment

Person in charge of the compilation of the technical documents: Elke Granzer; for address, see manufacturer.

Manufacturer:

WAREMA Renkhoff SE
Hans-Wilhelm-Renkhoff-Str. 2
97828 Marktheidenfeld
Germany



Ralf Simon

Executive Director Research and Development



Elke Granzer

Technical Support R & D

Marktheidenfeld, Germany, July 2021

8 EC Declaration of Conformity Integrated awning with easyZIP guidance

The product type:

WAREMA window awnings (window/facade outside)

Product line:

Front-mounted awning
Front-mounted awning Pure with easyZIP guidance
Awning window system
Top-mounted awning for new buildings
Integrated awning with easyZIP guidance
Basic awning
Basic shaft awning
Shaft awning system

Meets the provisions of **Machinery Directive 2006/42/EC** in the case of motor drives.

In particular, the following harmonised standards were used:

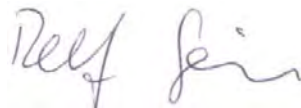
DIN EN 13561 External blinds and awnings - Performance requirements including safety

DIN EN 60335-2-97 Household and similar electrical appliances - Safety - Part 2-97: Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment

Person in charge of the compilation of the technical documents: Elke Granzer; for address, see manufacturer.

Manufacturer:

WAREMA Renkhoff SE
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Ralf Simon

Executive Director Research and Development



Elke Granzer

Technical Support R & D

Marktheidenfeld, Germany, September 2021