



MARKILUX

/ PRODUCT CARE AND USE

Please follow these product care instructions. Our aim is to provide you with years of hassle-free weather protection with very little maintenance. Failure to follow these will void your warranty.



MAKING
SHADE

General Guidelines:

Markilux awning provides you with reliable shade and transform your outdoor space into a beautiful sanctuary of rest and relaxation. With proper care and cleaning, you will enjoy your solar protection for a long time.

Important Notes

Fabrication number

Each markilux awning is individually manufactured to your specifications and bears a fabrication number that makes this product unique and identifiable at all times.

Legal information

The graphics and text in these instructions have been produced with care. No liability can be accepted for any errors and their effects! We reserve the right to make technical changes to the product and these instructions! The instructions contain information protected by copyright. All rights reserved! The product or brand names listed are protected trademarks.

Read the "Important notes" and "Operating instructions"

The instructions provided by the markilux dealer must be read before using the awning for the first time. It is important for the safety of persons to follow all instructions. All instructions must be kept by the customer and must be passed on to the new owner if the awning is transferred to a third party.

Explanation of the signal words

-  **DANGER**
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **NOTE**
Indicates an important note that must be taken into account.
-  **WARNING**
Indicates a potentially imminent danger from electricity that could lead to death or serious injury.

Intended use



The awning is a sun protection system. Misuse can result in considerable hazards. Observe the minimum inclination for safe water drainage (see installation instructions for the respective awning). If the awning is not fully extended, it must not be exposed to rain. There is a risk of water pockets forming in the awning cover, which can damage the awning or cause it to fall. Modifications such as attachments and conversions that are not intended by the manufacturer may only be carried out with the written authorisation of the markilux manufacturer. Additional loads on the awning due to attached objects or cable tensioning can lead to damage or the awning falling and are therefore not permitted.

Use in snow, ice, thunderstorms, storms and automatic control equipment



The awning must not be extended when there is snow or danger of frost. There is a risk of the awning being damaged or falling. When thunderstorms or bad weather fronts are approaching, violent gusts can suddenly occur to which even a control system cannot react immediately.

1. 
2. 

An automatic control system increases the comfort of the awning, but does not release you from your duty of care! If you are away for long periods, e.g. on holiday or at night, an automatic control system is no guarantee that your awning will continue to function properly. The awning must be retracted in good time before the onset of freezing rain, thunderstorms, heavy rain or bad weather fronts or when you are absent. Switch off any existing automatic system.

Awning cover when wet



If possible, only retract the awning when it is dry! If the awning has to be retracted when wet, it must be extended again as soon as possible to dry. The weight of the fabric cover can cause sagging, which increases when wet. This phenomenon does not affect the function and running properties of the awning.

Leaves, snow and foreign objects



Leaves and other foreign objects lying on the awning cover, in the cassette and in the guide tracks must be removed immediately. There is a risk of the awning being damaged or falling. Snow accumulation behind the awning must be avoided by attaching a snow stopper (snow guard, etc.) or by regularly removing the snow load.

Wind resistance class

Wind resistance class	1	2	3
Wind speed maximum value in km/h	28	38	49
Wind speed maximum value in m/s	7,8	10,6	13,6

Wind resistance class 2 markilux
8850

Wind resistance class 2 or 3
(depending on size)
markilux 779 / 879

Wind resistance class 3
markilux 770 / 870, 7800 / 8800, 679

The awning fulfils the requirements of the specified wind resistance class. For an explanation, see "Handover report from the specialist dealer". The CE mark indicates that conformity with the requirements of the applicable European directives has been proven; the corresponding declaration of performance and conformity can be requested from the markilux specialist dealer.

Crushing and shearing areas, risk of injury due to defective components



! Depending on the awning type, there are crushing and shearing areas, e.g. between the cassette and front profile and between moving parts. Items of clothing or body parts can be caught by the awning and pulled in! If an awning is installed at a height of less than 2.5 metres above accessible traffic routes, the awning may only be operated using a rocker switch with a view of the moving parts. Electrical controls, radio-controlled motors with latching switches, fixed position switches, etc. are not permitted in this case. If the front profile is tilted during the extension phase of the awning, there is a risk of injury from falling components! A tensioning strap contained in the awning is defective and may cause major damage. The awning may no longer be operated. For awnings with a motor drive, the power supply must be disconnected.

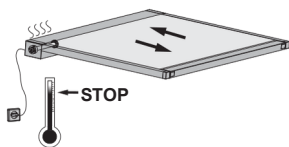
Deflection of the awning frame

i The weight of wide awnings can cause the profiles of the awning frame to deflect. This does not affect the function and running properties of the awning.

Metallic and pearl mica coatings on the frame colour

Plastic coatings on metal and plastic parts in metallic or pearlescent colours vary in their visual appearance. These visual differences particularly affect the intensity and characteristics of the metallic effect, which can also lead to a change in the perception of the basic colour tone.

Protection against overheating

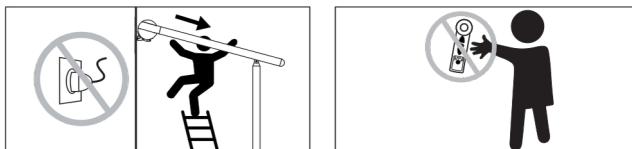


Multiple retraction and extension of the awning in quick succession causes the hard-wired motor to switch off automatically, protecting it from overheating. After cooling down, the hard-wired motor automatically switches back to operational mode.

Hard-wired motor in the event of power failure

! A motorised awning cannot be retracted without electricity. In windy areas with frequent power failures, the use of an emergency power supply should be considered. Otherwise, always retract the awning beforehand if the power supply is interrupted!

Uncontrolled operation



! When working in the travelling area of the awning (e.g. fixture, cleaning and maintenance work), the automatic control must be switched off to avoid the risk of crushing and falling. It must also be ensured that the awning cannot be operated manually unintentionally. To do this, the power supply must be disconnected, e.g. by switching off the fuse or disconnecting the plug coupling on the hard-wired motor. The operating crank must also be unhooked and stored in a safe place during manual operation. If awnings are operated by several users, a priority switching interlocking device (controlled power interruption from outside) must be installed or operated to prevent any retraction or extension of the awning. Persons who are not familiar with the proper use of the awning must not operate it.

Maintenance and care, fabric cover and frame colour properties

! Always use a suitable climbing aid and never lean or hold on to the awning!

! For awnings with controls, switch off the automatic system beforehand and ensure that the wind monitor is safe by disconnecting the power supply. Whether cleaning is necessary or not depends to a large extent on the environmental influences. The proximity of trees, for example, favours the formation of moss and algae. To ensure that gutters and water drains function properly, they must be cleaned at regular stand-offs. Depending on the degree of soiling, regular cleaning may be recommended. If the awning is on the weather side and has not been in use for a long time, driving rain can cause water to accumulate in the front profile. In this case, make sure that there are no water-sensitive objects under the awning when it is extended.

Cleaning the awning frame

! Dirty awning frames must always be cleaned wet. Use a commercially available household cleaner for sensitive surfaces (pH value: between 5 and 8) to clean the awning frame. Aggressive acids and abrasive materials (such as abrasive fleeces, emery, sand, pumice stone, etc.) are not permitted, as they could severely alter the surface.

Cleaning the awning cover

! The awning cover is treated with a special impregnation that will wear off with every cleaning. Commercially available awning impregnation can be used for re-impregnation. However, re-impregnation will not restore the fabric to its original condition. Remove dust periodically with a soft brush when dry. Leaves and similar soiling must be removed immediately. Remove small stains on the awning cover with a commercially available, preferably liquid mild detergent (water temperature approx. 30°C, soap solution 5 %). Rinse thoroughly with water until all detergent residues have been removed.

Repair and spare parts

 The awning must be inspected regularly for signs of wear or damage to the cover, frame colour and its fixtures (if electrically connected: also to the power cables). The screws on the brackets should be tightened annually. The durability of the fixtures should be checked annually by visual inspection or by annual maintenance by the markilux dealer. If any damage is found, a markilux specialist dealer should be commissioned to carry out repairs. Only spare parts approved by the manufacturer may be used.

  Never attempt to rectify faults yourself! Awnings in need of repair must not be used. Talk to your markilux dealer about a maintenance contract!

Characteristics through the production and manufacture of awning fabrics

 Awning covers are made from technical fabrics that are decorative as well as functional. Although only controlled first choice fabrics are used in the production process, there are limits to perfection. Certain appearances in the fabric cover are sometimes objectionable without knowledge. Defects worthy of complaint are only those that affect the operating life of the fabric cover. The blemishes described below in no way affect the durability and usability of the awning cover.

- Creases and creases

During processing, e.g. cutting, sewing and fitting the fabric cover onto the awning frame, unavoidable creases and creases may occur. These are visible as dark stripes when viewed against the light.

- Creases / puckering

These are caused by the permanent rolling and unrolling of the fabric cover on the roller tube. The fabric cover is doubled in the area of the side seams and the seams, resulting in different roll-up diameters, which causes puckering or creases. This effect can occur both directly next to the seam and in the centre of the fabric.

- Chalk and writing effect

As with the previously mentioned processing methods, a light colour change (pigment shift) can occur in folded areas, which is caused by buckling of the fibre.

- Other irregularities

Small, unavoidable irregularities caused by the manufacturing process, such as:

- Knots, thread thickening and thinning, which are perceived as light spots or nubs in the fabric cover,
- colour deviations in fabric covers made up in panels (e.g. triangular shading),
- isolated thread breakage and signs of stretching at the hems and the resulting sagging of these,
- sagging of the fabric cover due to its own weight or after "formation of water pockets" can occur and are unavoidable due to the production process.

Tested awning cover

The "Oeko-Tex Standard 100" certificate guarantees that markilux awning covers do not contain any harmful dyes or chemicals. sunvas, sunsilk and sunbow fabric covers generally achieve the highest possible sun protection factor for textiles (UPF 50 +). The UPF (Ultraviolet Protection Factor) indicates how much longer you can be exposed to the sun with solar protection. In purely mathematical terms, fabrics with a UPF 50 + sun protection factor allow you to sunbathe fifty times longer, taking into account the skin's own protection time, without getting sunburnt.

sunvas and sunsilk are innovative awning fabrics with a self-cleaning effect when it rains (at least 14 degrees angle of pitch of the awning required for rain run-off). The highly dirt-repellent finish ensures the brilliance of the colours for years to come.



Disassembly and disposal

When dismantling and disposing of the awning, the parts under pre-tension (e.g. folding-arms, servo gears or counter-pull systems) must first be completely released or safe-guarded against unintentional extension; a markilux specialist dealer must be commissioned for this!



Packaging

The packaging protects the product from damage during transport. The packaging materials are selected according to environmental and disposal considerations and are therefore recyclable. Returning the packaging to the material cycle saves raw materials and reduces the volume of waste. It is therefore essential that you dispose of packaging materials that are no longer required in accordance with the applicable legal regulations.



Batteries

Batteries and rechargeable batteries can contain toxic substances that are harmful to the environment. Batteries and rechargeable batteries must not be disposed of with normal household waste. It is therefore essential that you dispose of batteries and rechargeable batteries in accordance with the applicable legal regulations.



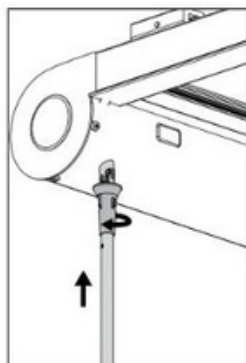
Electrical appliances

Electrical appliances are not worthless waste. Valuable raw materials can be recovered through environmentally friendly disposal. This product is labelled in accordance with Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). At the end of its operating life, this product must not be disposed of with normal household waste, but must be handed in at a collection point for the recycling of electrical and electronic equipment. This is indicated by the symbol on the product, the instructions for use or the packaging. By reusing, recycling or other shapes of recycling electrical appliances, you are making an important contribution to protecting our environment. It is therefore essential that you dispose of electrical appliances in accordance with the applicable legal regulations.

Operating Instructions

Read the operating instructions and all documents relating to the product (handover protocol, important notes, etc.) carefully and completely before using the product.

Awning with manual operation



1. Slide the funnel of the crank rod into the gearbox mount and turn to engage.

2. Hold the crank handle with one hand on the upper handle and the other on the lower handle. During operation, pull the crank, winding handle slightly towards the operator.

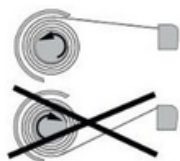
3. If the gear eye is on the left-hand side (as shown):

- Extending the awning cover: Turn the crank, winding handle clockwise.
- To retract the awning cover: turn the crank, winding handle anti-clockwise.
- If the gear eye is on the right-hand side, the directions of rotation are exactly opposite.

4. After retracting or extending, remove the crank from the gearbox by pushing it up slightly and making a twisting motion and store it in a safe place.



If the crank rod remains in the gear eyelet, it must be safe from uncontrolled movement (e.g. in windy conditions).



Awnings with manual operation have a gear end lock to limit the extension path. It prevents the fabric cover from being incorrectly wound onto the roller tube.

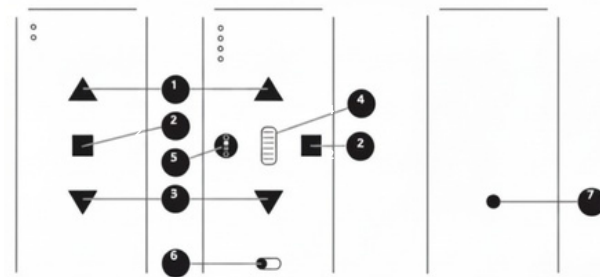
Never force the gear end stop. Shortly before reaching the end position in the extension direction, the cranking process should be slow and controlled to prevent the gear brake from being forcibly overrun. If the gear end lock is defective, winding the fabric cover onto the roller tube from below during retraction can damage the awning cover and the awning frame.

Awning with motorised operation

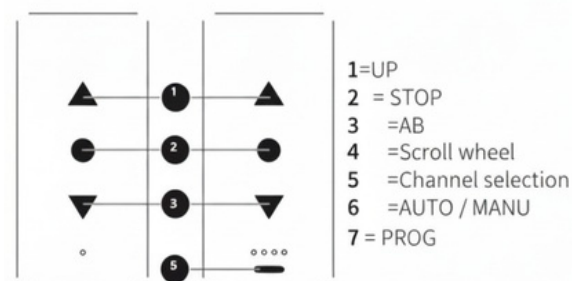
markilux hand-held radio transmitter for operation

Hand-held radio transmitter io (868 MHz)

Rear side



RTS radio hand-held transmitter (433 MHz)

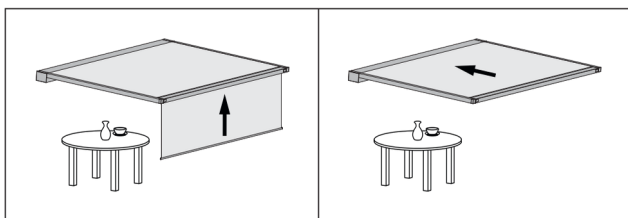


Extend the awning by pressing the rocker switch for extending/ retracting. With radio remote control, your markilux specialist dealer must explain the functions on the radio remote control to you in detail, as he can set these individually for you, depending on the equipment. Please refer to the separate operating instructions of the hard- wired motor and - if available - the control unit manufacturer. The end stop for extending/retracting the awning is limited. The end position when extending is set by your specialist dealer.

Operation via smart home

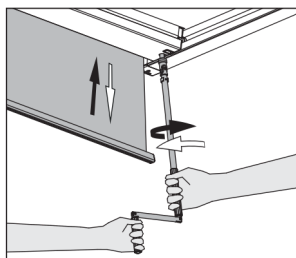
With a radio control system, it is possible to integrate the awning into a suitable smart home so that it can also be controlled from anywhere using an app. Please note that the awning must never be left unattended.

Awning with shadeplus



Always retract the shadeplus fabric cover first before retracting the entire awning. If the main motor of the awning is equipped with a control, never leave your extended shadeplus fabric cover unattended, as the awning could retract unintentionally. In windy conditions, take particular care to ensure that the shadeplus fabric cover with its shadeplus profile does not make any uncontrolled movements. If the wind picks up, retract your shadeplus fabric cover immediately.

Shadeplus with manual operation



1. Insert the pin of the magnetic crank handle into the gearbox mount.

2. The gearbox eyelet is on the left-hand side (as shown):

clockwise.

- To retract the awning cover: Turn the crank, winding handle
- anti-clockwise.

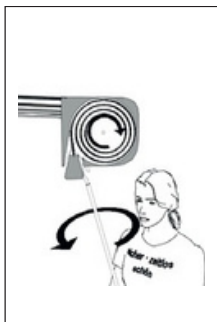
If the gear eyelet is on the right-hand side, the

directions of rotation are exactly opposite.

3. If the crank rod remains in the gear eyelet, it must be safe against uncontrolled movement (e.g. in windy conditions).

- Extending the awning cover: Turn the crank, winding handle

Direction of rotation when retracting



If the winding direction is incorrect, the shadeplus profile will not close flush with the front profile. If the shadeplus profile does not fit snugly into the front profile, extend the shadeplus fabric cover fully and retract it with the same crank rotation. Then operate the crank, winding handle again in the opposite direction of rotation when extending and retracting.

Conversion or retrofitting

Depending on the awning model, the following retrofitting options can be carried out by your markilux specialist dealer:

- Changing the awning cover
- Installation of a hard-wired motor
- Retrofitting with automatic controls. A motor drive must always be available for this. Ask your specialist dealer about sun and wind monitors, hand-held transmitters, etc.

Ask your specialist dealer for individual advice on this.

Disassembly and disposal

For proper disassembly and disposal, please pay particular attention to the "Important notes" section.

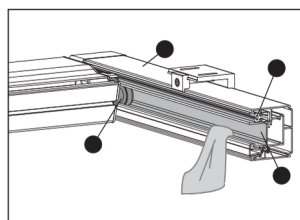
Maintenance and care

For proper cleaning of the awning cover and the awning frame of your markilux awning, please pay particular attention to the cleaning instructions in the "Important notes" chapter.



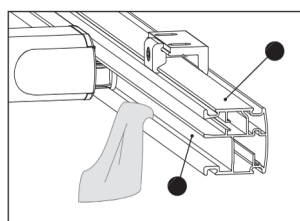
We recommend that you take out an inspection and maintenance contract with your specialist dealer. Regular inspection and maintenance will make a decisive contribution to extending the service life of your markilux awning. The markilux specialist dealer will check the condition of the awning in order to recognise possible causes of a malfunction or wear and tear at an early stage. Negative consequences can be avoided or delayed. Regular maintenance means an attractive appearance in the long term and a contribution to value retention.

Cleaning the guide tracks with tracfix



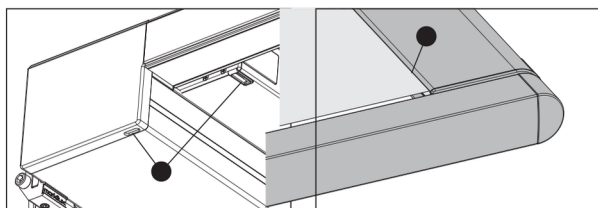
Dirt in the side guide tracks (1) in the area of the tracfix system (4) and the guide track rollers (3) can lead to noise when extending and retracting. Regular cleaning and polishing of the running areas (2/4) will prevent noise.

Without tracfix



Dirt in the side guide tracks (1) can cause noise when extending and retracting. Regular cleaning and polishing of the contact surfaces and the guide track in the running area (3) prevents the formation of noise.

Cleaning the rain run-offs



To ensure the gutters and water drains function properly, they must be cleaned at regular stand-offs. Leaves and similar debris can also block the drains.

Awning with lighting

! The light sources can become very hot! Before touching the light sources, the lighting must be switched off for a few minutes to cool down. No objects or similar items may be hung in front of the light sources and care must be taken to ensure that there are no objects directly under the light sources, either when they are retracted or extended. LED-Spots must not be aimed directly at the awning cover. The lighting must always be switched off when the awning is closed.

! Do not touch or pull the supply cables. Do not hang any objects on the supply cables. Inspect the awning regularly for signs of wear or damage to cables and light sources. If any damage is found, contact a markilux specialist dealer for repairs. Always switch off the power supply to the awning and lighting before carrying out any work (pull out the mains plug, switch off the fuse). Do not switch on the lighting until all cable connections have been made. Electrical installations or repairs may only be carried out by a qualified electrician in accordance with the DIN VDE 0100 installation regulations. Awnings in need of repair must not be used. Only spare parts approved by markilux may be used.

Automatic safety off-switch:

Radio (24V): The safety off-switch is preset to 6 hours as standard. This can be set to 3, 6 or 12 hours. Radio RTS (12V): 24 hour timer. (Cannot be set) The radiation intensity of the light sources is harmless to humans and falls below the RG 2 range according to EN 62471. Nevertheless, it is advisable not to look permanently into the centre of the light source. If the LED-Line is defective, please contact your specialist dealer. Repair and maintenance work, such as the replacement of individual parts, a damaged external flexible cable or other electrical components, may only be carried out by your specialist dealer. You can replace a defective LED-Spot yourself.

Operation of the lighting

i The markilux io designcontrol radio hand-held transmitter offers up to 5 channels and an AUTO / MANU function for all channels. The markilux lighting can be easily dimmed using the scroll wheel. Briefly pressing the UP and DOWN buttons switches the light on or off. A longer press changes the colour. There are 70 colours to choose from.

Button function for controlling the io RGB and WW lighting

button	Time	RGB	WW
	<0,5 s	Channel selection	
	scroll	dimmer	
	<0,5 s	ON	
	<0,5 s	OFF	
	2 s up to 5 s	Saved brightness and colour, default 50% red	Saved brightness, default 50% white
	< 2 s	Colour change (ends when released)	No reaction
	> 2 s	Colour change (stops after pressing the button)	No reaction

i The RGB and WW light channels must not be active at the same time on the same lighting options to avoid unwanted mixing of warm white and RGB.

i Alternatively, you can integrate the lighting into a compatible smart home system. This makes it possible to control the lighting from anywhere via an app. For more information, please contact your specialist dealer.