

INSTRUCTION MANUAL

DEAR CUSTOMER!

We would like to congratulate you on your purchase of a SunSquare®-sunsail and thank you for your confidence in us. With this SunSquare® product, you have acquired a high-quality sun-protection system developed to the highest standards, both technically and in terms of design.

This instruction manual will assist you in ensuring smooth operation of your SunSquare®-system. By following a few important hints and carrying out routine maintenance, you will experience many years of pleasure with your SunSquare®-shading system. We would like to wish you plenty of sunshine and pleasant, cool shade under your SunSquare®-sunsail for years to come.

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1. EXCLUSIVE PRODUCTION/IMPRINT

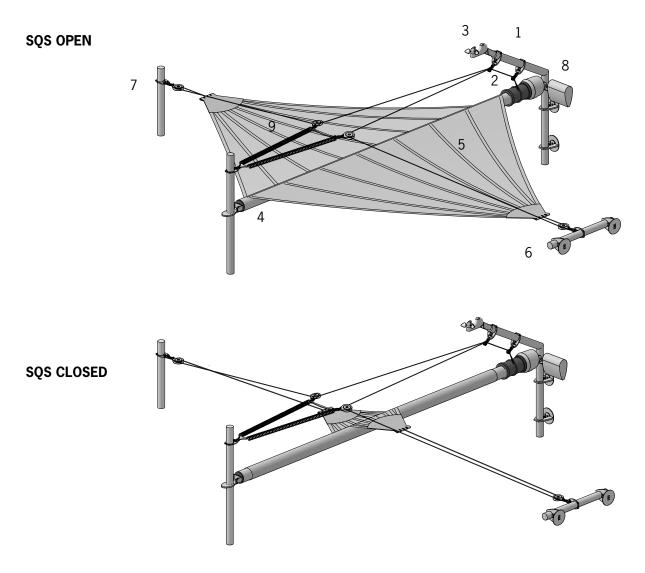
SunSquare® Shading Solutions GmbH

Maderspergerstrasse 12 3430 Tulln, Austria

T: +43 (0)2272 81817 - 0 F: +43 (0)2272 81817 - 99 E: info@sunsquare.com W: www.sunsquare.com



2. EQUIPMENT OVERVIEW SQS



Please note: As every SunSquare® is individually designed for its specific environment, the extension lengths of the two sail cloths may be different. This means that, in a closed state, one side may remain further extended than the other.

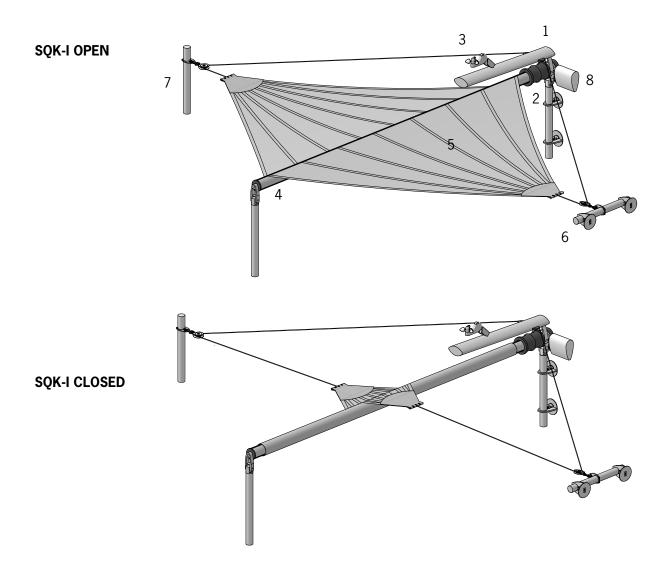
EQUIPMENT

- 1 ... Cantilever for rope deflection
- 2 ... Motor and rope winding reel
- 3 ... Wind sensor or sun/wind sensor
- 4 ... Shaft
- 5 ... Sail
- 6 ... Wall support or wall ring with roller
- 7 ... Ground support with roller
- 8 ... Controllsystem housing
- 9 ... Twin tension springs

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2. EQUIPMENT OVERVIEW SQK-I



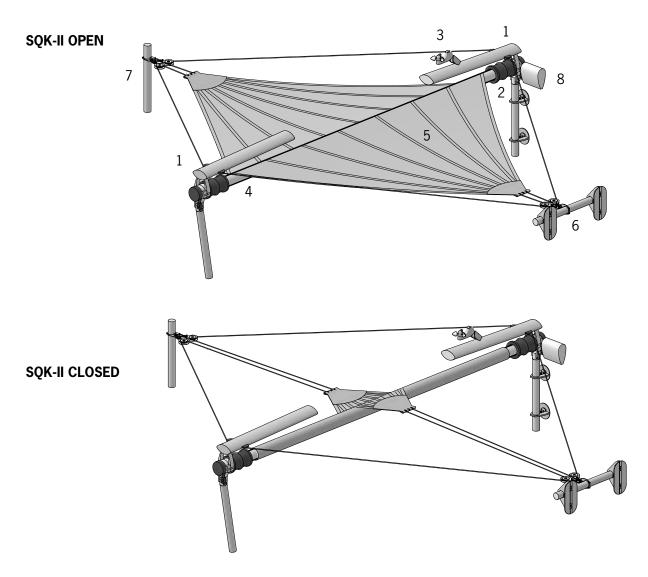
Please note: As every SunSquare® is individually designed for its specific environment, the extension lengths of the two sail cloths may be different. This means that, in a closed state, one side may remain further extended than the other.

EQUIPMENT

- 1 ... Compensator for rope tension
- 2 ... Motor and rope winding reel
- $3 \dots \text{Wind sensor or sun/wind sensor}$
- 4 ... Shaft
- 5 ... Sail
- 6 ... Wall support or wall ring with roller
- 7 ... Ground support with roller
- 8 ... Controllsystem housing



2. EQUIPMENT OVERVIEW SQK-II



Please note: As every SunSquare® is individually designed for its specific environment, the extension lengths of the two sail cloths may be different. This means that, in a closed state, one side may remain further extended than the other.

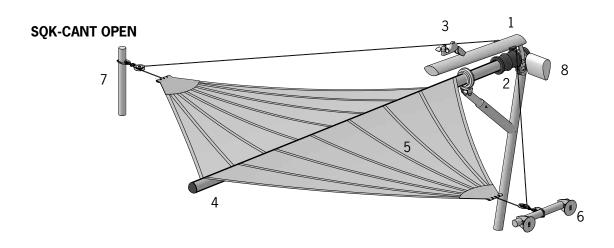
EQUIPMENT

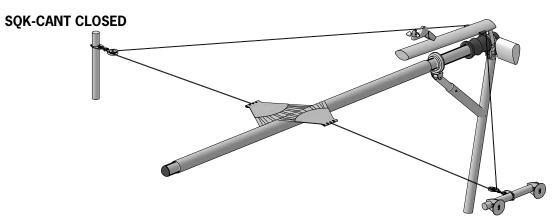
- 1 ... Compensators for rope tension
- 2 ... Motor and rope winding reel
- $3 \dots \text{Wind sensor or sun/wind sensor}$
- 4 ... Shaft
- 5 ... Sail
- 6 ... Wall support or wall ring with roller
- 7 ... Ground support with roller
- 8 ... Controllsystem housing

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2. EQUIPMENT OVERVIEW SQK-CANT





Please note: As every SunSquare® is individually designed for its specific environment, the extension lengths of the two sail cloths may be different. This means that, in a closed state, one side may remain further extended than the other.

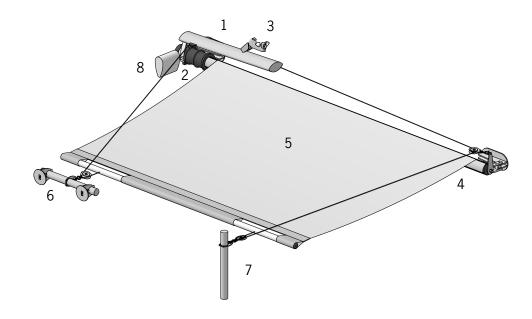
EQUIPMENT

- 1 ... Compensator for rope tension
- 2 ... Motor and rope winding reel
- 3 ... Wind sensor or sun/wind sensor
- 4 ... Shaft
- 5 ... Sail
- 6 ... Wall support or wall ring with roller
- 7 ... Ground support with roller
- 8 ... Controllsystem housing

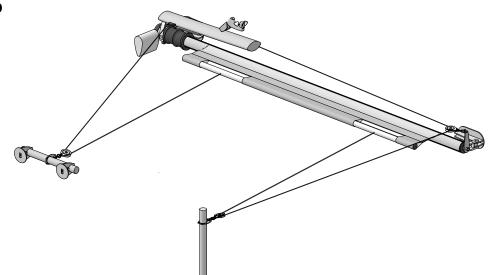


2. EQUIPMENT OVERVIEW AX-I

AX-I OPEN



AX-I CLOSED

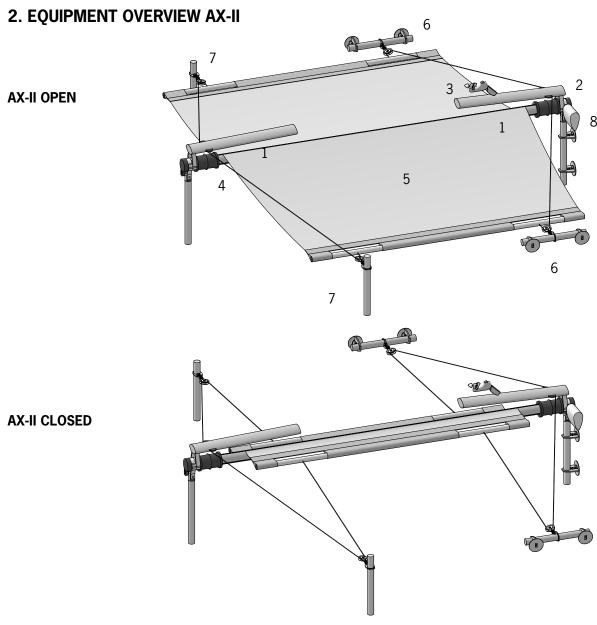


EQUIPMENT

- 1 ... Compensator for rope tension
- 2 ... Motor and rope winding reel
- 3 ... Wind sensor or sun/wind sensor
- 4 ... Shaft
- 5 ... Sail
- 6 ... Wall support or wall ring with roller
- 7 ... Ground support with roller
- 8 ... Controllsystem housing

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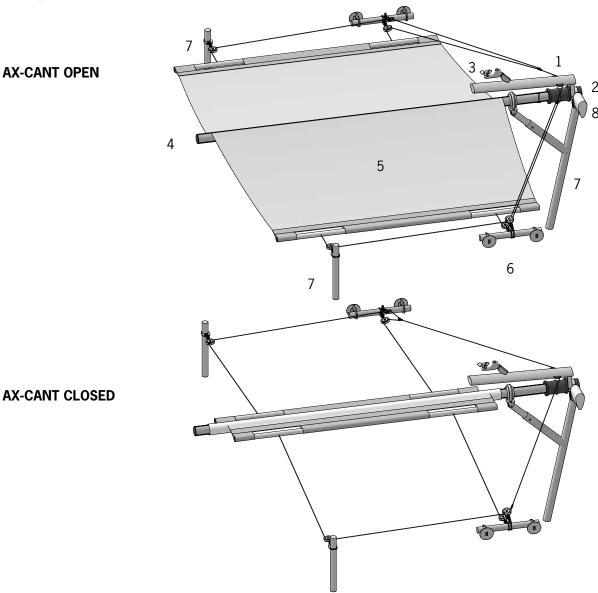
Please note: As every SunSquare® is individually designed for its specific environment, the extension lengths of the two sail cloths may be different. This means that, in a closed state, one side may remain further extended than the other.

EQUIPMENT

- 1 ... Compensators for rope tension
- 2 ... Motor and rope winding reel
- 3 ... Wind sensor or sun/wind sensor
- 4 ... Shaft
- 5 ... Sail
- 6 ... Wall support or wall ring with roller
- 7 ... Ground support with roller
- 8 ... Controllsystem housing



2. EQUIPMENT OVERVIEW AX-CANT



Please note: As every SunSquare® is individually designed for its specific environment, the extension lengths of the two sail cloths may be different. This means that, in a closed state, one side may remain further extended than the other.

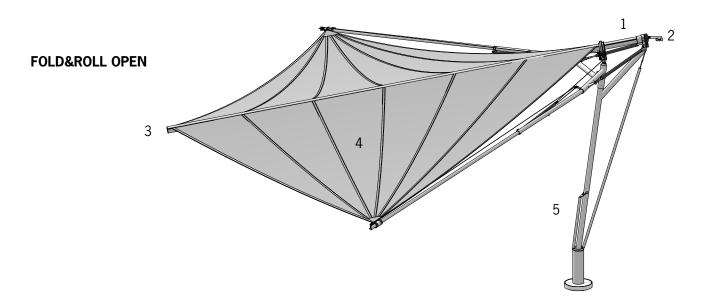
EQUIPMENT

- 1 ... Compensator for rope tension
- 2 ... Motor and rope winding reel
- 3 ... Wind sensor or sun/wind sensor
- 4 ... Shaft
- 5 ... Sail
- 6 ... Wall support or wall ring with roller
- 7 ... Ground support with roller
- 8 ... Controllsystem housing

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2. EQUIPMENT OVERVIEW FOLD&ROLL





EQUIPMENT

- 1 ... Motor and rope winding reel
- 2 ... Wind sensor or sun/wind sensor
- 3 ... Shaft
- 4 ... Sail
- 5 ... 270° rotable floor support with roller

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3. CONTROL

Your SunSquare®-system is equipped with a motor, controller and wind sensor by Somfy. By operating the remote control, your sunsail can be opened and closed. If the wind is too strong, the wind sensor sends a command and closes the system fully automatically.

A separate circuit is recommended for the power supply.

3.1. CONNECTION TO HOUSING BUS-SYSTEM

If the SunSquare®-system is connected to the in-house BUS-system, a wind sensor in the BUS-system must ensure that the sunsail closes at a maximum wind speed of 40 km/h. **This wind sensor is NOT part of the SunSquare®-system and is NOT supplied by SunSquare®.** It is recommended to use a separate wind sensor, which is placed near the SunSquare-sunsail in order to obtain relevant measured values.

The BUS-system control has to ensure that it is NOT possible to send an open- and close-command at the same time. Between an open and a close command there must be a pause of at least 0.5 seconds, otherwise the drive may be destroyed. Please refer to the Somfy control guidelines.

4. WIND SENSOR

Your SunSquare®-sunsail with wind sensor measures the wind speed via sensor (Somfy). If the wind is too strong, the sunsail automatically receives the command to close/roll up. **At this point NO manually given command to the system is possible!** Manual commands are only accepted again after 30 seconds.

The automatic wind sensor function is a safety function and is therefore always active. It must not be bypassed under any circumstances!

Different wind sensors are used depending on the control:

- Eolis Sensor RTS
- Eolis Sensor iO 230V
- Eolis WireFree iO (battery operated)

Please be sure to note the differing threshold values of the various wind sensors!

If the sunsail is connected to the in-house BUS-system, a wind sensor of the BUS-system must ensure that the SunSquare®-system closes at max. 40 km/h wind speed. See point 3.1.

BATTERY CHANGE FOR EOLIS WIREFREE IO WIND SENSOR

The wind sensor signals the imminent battery change:

- Batteries are almost empty: sail closes every 30 minutes
- Batteries are empty: sail closes every hour

Two pieces of batteries type AA (LR6), 1.5 V are required.

For the exact battery replacement procedure, please refer to the Somfy operating instructions for the Eolis WireFree iO wind sensor or have the battery change carried out by a qualified specialist.

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4.1. SETTING THE WIND SENSOR/THE AUTOMATIC WIND SYSTEM

When your SunSquare®-system is installed, the automatic wind system is set according to local requirements. However, it may become necessary to readjust it, for example, if it is found that the system retracts or extends too often and too quickly. It is advisable to observe the behavior of the automatic control for a while and then have it readjusted accordingly, by trained SunSquare®-personnel.

Attention: The automatic wind system must never be set above 40 km/h, as SunSquare® will not accept any warranty in this case!

5. OPERATION OF THE SYSTEM BY REMOTE CONTROL

In addition to the wind sensor, manual drive commands can be sent via remote control. Each SunSquare®-system that is not connected to an in-house BUS-system is supplied with a remote control/handheld radio transmitter (1 or 5 channel) as well as a wall switch.

Manual control is carried out as described in the illustration of the radio transmitters on page 12.

5.1. BATTERY CHANGE REMOTE CONTROL

Batteries of type CR2032 or CR2430 are required. Please refer to the Somfy operating instructions for the exact battery replacement procedure or have the battery replacement carried out by a qualified specialist.

- 1-channel remote control: Situo 1 battery type: CR 2032 3V
- 5-channel remote control: Situo 5 battery type: CR2430 3V
- 5-channel remote control: Situo 5 bi-radio iO/RTS battery type: CR2430 3V
- Smoove Origin wireless wall switch battery type: CR 2032 3V

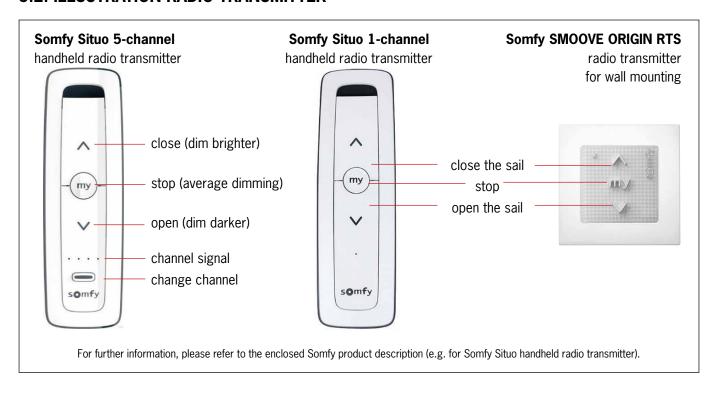
There is a risk of explosion if the batteries are of the wrong type.

Batteries and rechargeable batteries do not belong in household waste.

Dispose of them in accordance with the applicable regulations in the trade or at the municipal collection points.



5.2. ILLUSTRATION RADIO TRANSMITTER



6. OPERATION IN WINTER AND DURING RAIN

The sunsail does not bear snow loads! Never open the sail during snowfall or even close it with snow load.

If snow is wrapped up when closing the sail, this can lead to the destruction of the system due to the increased winding diameter. It must also be ensured that neither frost nor ice adhere to the sail.

The sail should be opened regularly for ventilation and drying during the winter months (every 2-4 weeks, in clear, dry weather).

Please note: Due to individual planning adapted to the situation, the extension lengths of the two sides of the sail may be different for your sail (see illustrations, chapter 2). This means that in the closed state one side protrudes further than the other. In this case, the user must ensure that - if the sail is not removed over the winter - the snow loads on the protruding sail fabric do not become too high. These should be removed manually, if necessary with the aid of a stick (e.g. broom handle).

ICE ON THE CLOSED SAIL - The sail must not be opened!

SNOW OR RIPE ON THE OPENED SAIL - The sail must not be closed!

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6.1. SAIL PROTECTION COVER

The SunSquare® sail protection cover is designed to protect the sail from dirt during the winter months. The sail remains on the shaft and is wrapped in the cover when dry. Should a property be unoccupied for an extended period of time, fitting the sail protection cover is equally advisable.



Before attaching the sail protection cover, roll up the sail (sailfabric must be dry!), then be sure to disconnect the sunsail system from the power supply. There is a risk that the system may be damaged by unintentional operation of the remote control.

Proceed as follows:

- 1. Close the sail by means of remote control.
- 2. Furl the ends of the sail with the hand crank (if available) until only the ropes protrude.
- 3. Disconnect the system from the power supply.
- 4. Attach the sail protection cover the acrylic side on top and the net fabric on the bottom.
- 5. Fold the overhanging cover downwards.
- 6. Attach the black rubber tension ropes (at one meter intervals) to prevent the cover from flapping in the wind.

Be careful when working on the ladder. Danger of falling!

Without appropriate safety precautions, refrain from mounting the sail protection cover.

6.2. OPERATION DURING RAIN

In systems with a low shaft inclination, water varnish may form in the sail.

This prolonged waterlogging can cause the sailcloth to bulge, so it is advisable to remove this waterlogging as soon as possible. Either by closing the sail or by carefully lifting the sailcloth by hand, if necessary with the aid of a broom or other blunt object.

Please note: The water can sometimes drain in gushes. Pay particular attention when draining of systems on roof terraces, make sure that no one is endangered by falling water!



7. CARE AND MAINTENANCE

Once a year, preferably in the spring before commissioning, the system should be maintained. Please contact your SunSquare®-sales partner.

7.1. SAIL CARE

Due to its outdoor location, the sail is constantly exposed to environmental factors such as wind, UV-radiation, dirt in the air, etc. which contribute to the aging or wear and tear of the sailfabric.

Careful handling and maintenance will keep your sailfabric intact and clean longer.

What can you do to keep your sail beautiful and undamaged longer:

Open the sail regularly and let it air out or dry. Even if it does not rain, condensation can form in the rolled up sail. Therefore, be sure to avoid keeping the sail closed for several weeks, as mildew stains may form.

Avoid closing your sail when it is wet, or open it to dry as soon as weather permits.

Allow your sail to be washed off by the rain and then dry again. This allows loose dirt to wash it off before it becomes embedded in the fabric (such as pollen) which is otherwise difficult to reach.

Minor soiling can be removed carefully with the aid of a soft brush and mild soapy water.

Never try to clean your sail with a high-pressure cleaner, as this may destroy it.

When closing the sail in strong winds, watch the sailcloth, as wind gusts can cause wrinkles. If wrinkles have formed, unroll the sail again (as soon as there is no wind) and then retract it again.

Make sure that no insects sitting on the sail are rolled up with it. This will cost the lives of the insects and causes stains. **In the evening:** Switch off the lighting app. 10 minutes BEFORE closing the sail, and wait until the insects have moved away.

Make sure that no leaves or fruits from surrounding trees fall on to the sail. Cut back trees in time so that there is always sufficient distance to the sail fabric.

Make sure that the sail, even if it moves in the wind, does not touch any surrounding objects or parts of the building, as this can cause damage. If this is the case, please contact your SunSquare®-sales partner.

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7.2. CARE OF METAL PARTS

All stainless steel parts should be cleaned regularly. Deposits from industrial dust, but also salts (e.g. (e.g. sea air) and other chemicals (e.g. high chlorine concentrations in nearby swimming pools) can lead to surface corrosion.

Likewise, lime and rust, e.g. in garden irrigation water, can lead to stains and rust deposits on stainless steel parts. Regular maintenance with Niro polish prevents deposits and prevents corrosion. Slight surface corrosion can be removed with suitable stainless steel care products. We recommend cleaning and preserving all stainless steel parts at least twice a year.

7.3. CARE AND MAINTENANCE OF SPARE PARTS

PULLEYS

Moving parts such as deflection pulleys should be checked for proper function at regular intervals (visual inspection!). Never touch the system when it is in motion! Risk of injury! If deflection rollers no longer rotate freely or even block completely, please contact your SunSquare®-sales partner.



ROPES

The ropes must be able to move freely without touching parts of the building or other objects (e.g. branches). Nothing may be attached to the ropes (e.g. fairy lights, curtains, etc.).

If you notice any damage, please contact your SunSquare®-sales partner immediately to replace the ropes.



FASTENINGS

Wall fasteners are sealed with sealant. These are maintenance joints that must be checked and replaced periodically. Loose fasteners must be readjusted.

SAIL ENDS

Check the position of the sail ends (minimum distance of 2 cm between the pulley and the knot sleeve).

ROPE WINDING DRUM

The rope winding drum can be cleaned with standard dishwashing detergent.





8. ACCESSORIES

With original SunSquare®-accessories, your sunsail-system can be expanded, optimized.

HEIGHT ADJUSTERS (manual/electric)

Move your height adjusters to the neutral position before closing the sail, otherwise a change in the direction of pull of the ropes may lead to wrinkling when closing the SunSquare®-system.

When lowering the height adjuster, make sure that the sail still has a sufficient safety distance to all surrounding objects, so that the sail can close smoothly even in the event of incoming gusts of wind and the associated movement of the sail.

Please make sure that the lowering of the sail does not result in any risk of injury.



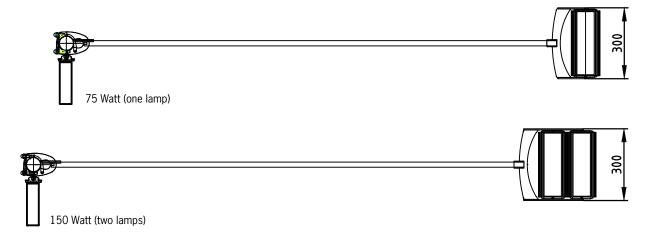


LIGHTING

Please observe 0.5 meter minimum distance to the illuminated surface or to the mounting surface (components)! For the installation and for the operation of this luminaire the national safety regulations have to be observed. SunSquare® does not accept any liability for damage caused by improper use or installation.

Avoid looking directly into the light.

In the evening: Switch off the light in good time **BEFORE closing the SunSquare sunsail** and wait until the insects have moved away.











9. HAZARD WARNINGS AND RECOMMENDATIONS

Attention is drawn to the following:

OVERHEATING PROTECTION

The plug-in drive (inside the shaft) is protected from thermal overheating and switches off automatically at approx. 120 °C. When using the manual remote handheld, too many short successive open and close commands should be avoided. After the motor has cooled down, all functions are enabled again.

Please note: In case of thermal overload, the motor could also stop during retraction. The system would then be exposed to the full wind loads while the motor is cooling down!

EMERGENCY HAND CRANK

In the event of a motor failure, the automatic retraction system is also shut down. The unit must then be rolled up quickly using the emergency hand crank. For this reason, the emergency hand crank should be kept as visible as possible near the system so that the sail can be rolled up manually if necessary (power failure, motor failure, etc.).

The use of an emergency hand crank is not intended for systems with iO drive. Contact your SunSquare®-sales partner as soon as possible.

WIND SENSOR

The wind sensor must not be manipulated or even blocked! An improperly functioning wind control system can lead to serious damage to the system and poses a danger.

LIGHTNING PROTECTION

The local lightning protection engineer must assess whether the system must be connected to existing lightning protection equipment. No liability is accepted for damage caused by lightning.

It is generally recommended to connect the system to a separate circuit.

CABLE DRAW/ROPE DRAW

Reaching into the cable draw on the motor and into the cable pulleys (deflection pulleys) can lead to injuries. The rope drive is therefore usually placed out of reach.

DRAINAGE

Avoid uncontrolled gushing drainage of water varnishs formed in the sails. This applies in particular to installations on roof terraces: The falling of water from higher floors is dangerous.

BARBECUES/FIRE BOWLS

SunSquare® strongly advises against open fires or barbecues (both charcoal and gas) under the sail. Flying sparks can cause burn holes or even a fire to develop. Soiling due to soot formation is another possible consequence.



10. FAULTS AND THEIR ELIMINATION

ROPE OBSTRUCTION/ROPE BREAKAGE

Rope rubs against foreign objects (e.g. branch).	Remove obstruction at all costs.	
Rope is blocked at the pulleys.	Check deflection pulleys, remove dirt or leaves if necessary. Caution: Danger of injury!	

Please note: In the event of a rope breakage, the SunSquare®-sales partner must be informed immediately. Immediately disconnect the system from the power supply. Do not open the system after a rope breakage.

SAIL DOES NOT RETRACT ON COMMAND

Overheating protection of the motor has been triggered.	Let the engine cool down, never run the system in and too often in succession.	
Battery of the remote control is empty.	Replace battery.	
System without electricity.	Fuse defective. Ground fault circuit interrupter has been tripped. Remedy the fault, contact an electrician if necessary.	

Please note: If none of these faults apply, please close the sail manually (if an emergency hand crank is available) and contact your SunSquare®-sales partner.

SAIL DOES NOT AUTOMATICALLY RETRACT AT TOO HIGH WIND SPEEDS

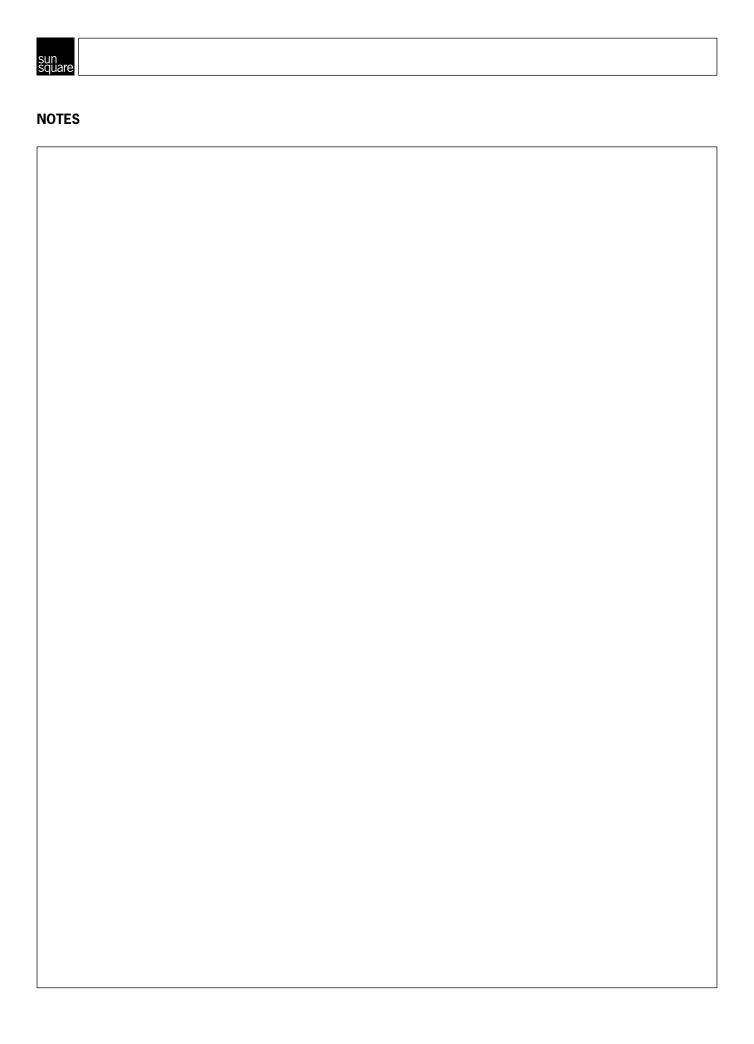
The wind monitor is blocked or defective.	Observe whether the wind monitor is turning in the wind. Remove leaves, cobwebs, etc. from the wind monitor.	
The wind monitor is incorrectly adjusted.	Please contact your SunSquare®-sales partner.	
Overheating protection of the motor has been triggered.	Let the engine cool down, never run the system in and out too often in succession.	
System without electricity.	Fuse defective. Ground fault circuit interrupter has been tripped. Remedy the fault, contact an electrician if necessary.	

Please note: If none of these faults apply, please close the sail manually (if an emergency hand crank is available) and contact your SunSquare®-sales partner.

SAIL RETRACTS WITHOUT COMMAND

System closes without wind and without command via remote control	Battery of the wind sensor or the rain sensor (only with battery-operated models!) is running low. Replace the	
	battery!	

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sun square								
11. SUNSQUARE® DISTRIBUTOR ENTRY/NOTES								
STAMP SUNSQUARE® DISTRIBUTOR								
NOTES								

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