



Winsol | Sun protection

Pergolas | SO!

2019 | User manual  
Warranty conditions



reddot award 2019  
winner



**PERGOLAS.AE**

By SAFETY SCREENS

Aluminum Installations LLC

[www.pergolas.ae](http://www.pergolas.ae)



[Winsol.eu](http://Winsol.eu)

Patio pergola  
Window decoration

Railings  
Sun protection

Shutters  
Gates

Doors  
Windows



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*Product documentation:*

- Product brochures are available at [www.winsol.eu](http://www.winsol.eu)
- Data sheets, CAD drawings, order forms, manuals, and general warranty information can be downloaded from the library section of our website.
- Colour samples and prices are available upon request from Winsol N.V. or authorised dealers.
- Technical structural assistance and references are available upon request.

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Subject to technical modifications

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## 1. Product documentation

*Revision:*  
8:55 13/06/2019

### 1.1. Delivery, installation & transfer documents

*Installation instructions:*

Only installers certified by Winsol may carry out the installation after studying this enclosed document.

*User manual:*

Before commissioning this product, the installer and end user must study this manual and any annexes. The user manual describes, among other things:

- Product properties & options
- Safe use
- Maintenance instructions
- Warranty provisions

If a document is accidentally missing at the time of delivery, you can request it from your dealer.

*Casambi network data:*

This document contains:

- The name of your Casambi network
- The user password
- The administrator password (only to be used by authorised installers)

*Delivery:*

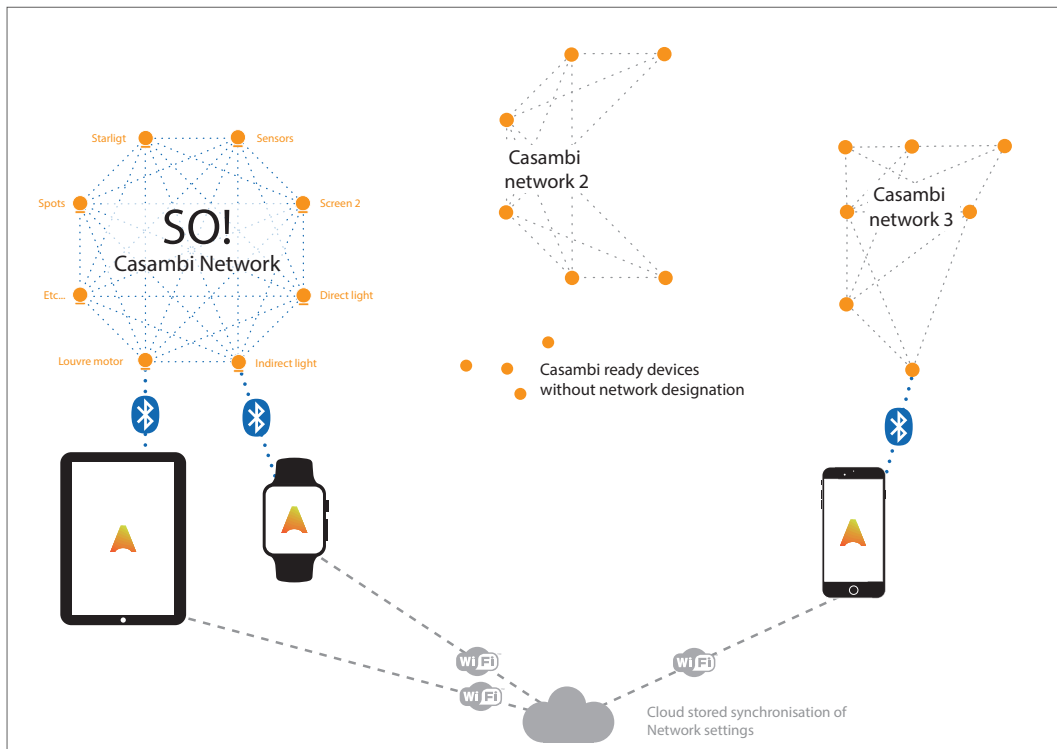
- The installer & end user must complete the "Delivery" attachment together after the installation.
- Maintenance or repairs carried out by the installer must be registered in the log.
- The end user must keep all documentation and hand it over to the new owner in case of a sale.

## 2. General Casambi information

### 2.1. Instruction videos:



### 2.2. Communication platform



**Casambi:**

Casambi is a wireless communication platform between users and different independent devices within closed local networks.

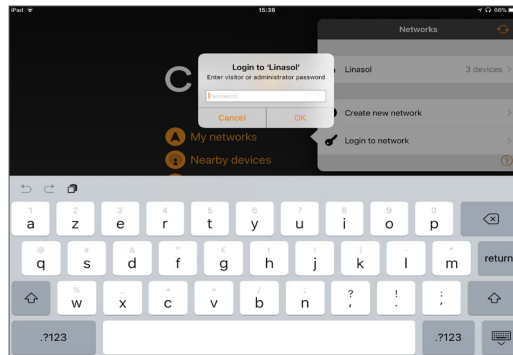
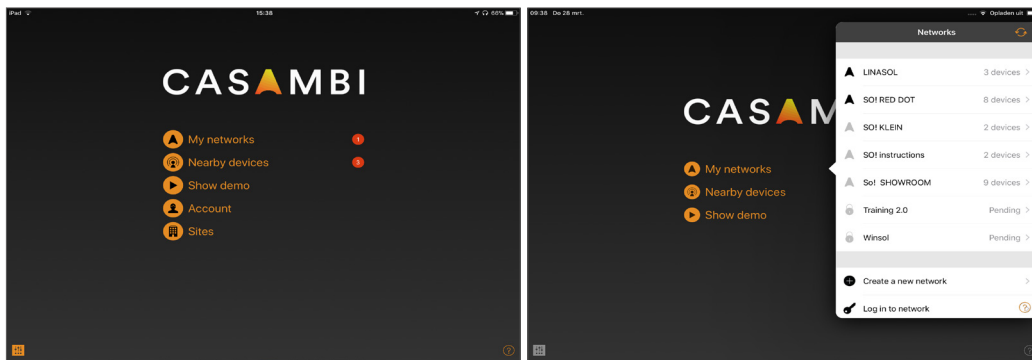
**Casambi networks:**

Users can create Casambi Networks using the App. Independent Casambi-ready devices (light fixtures, sensors, ...) within Bluetooth range can be assigned to a network. These devices will make up an inter-connective Bluetooth web. As this network expands, so does the Bluetooth coverage. A user only needs to be within Bluetooth range of one device to be able to control any device within the network. The components of the network communicate with each other using commands. Networks can be secured using user and administrator passwords.

### 2.3. Network access

**Steps:**

1. Download the Casambi App from the Apple App Store or Google Play Store.
2. Connect the pergola to the 230V power supply, if this has not yet been done.
3. In order to use Casambi, both Wi-Fi and Bluetooth must be activated on your smartphone/tablet.
4. Open the app on your smartphone/tablet.

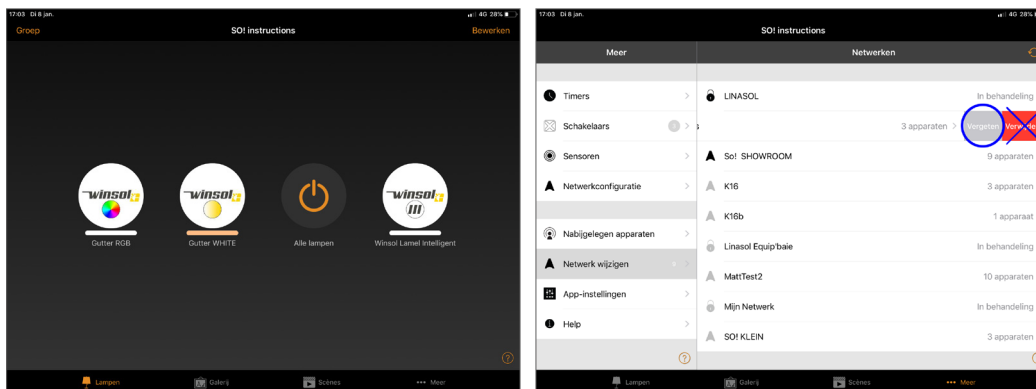


5. Select "My Networks" on the App homepage.
6. A list of Casambi networks will appear.
  - Networks within Bluetooth range of your smartphone/tablet are shown in black.
  - Networks that can be accessed that are not within Bluetooth range of your smartphone/tablet are light grey.
7. Select the network "SO!".
8. Enter the guest password (6 digits). This is only necessary if you log in for the first time, or if you have chosen to "forget" the network when you last logged in.

Note: The "administrator password" (12 digits) is exclusively for your Casambi-certified awning expert! Without thorough knowledge of the SO! network, you can deactivate security settings and completely disable the controls!

## 2.4. Forget network

Steps:



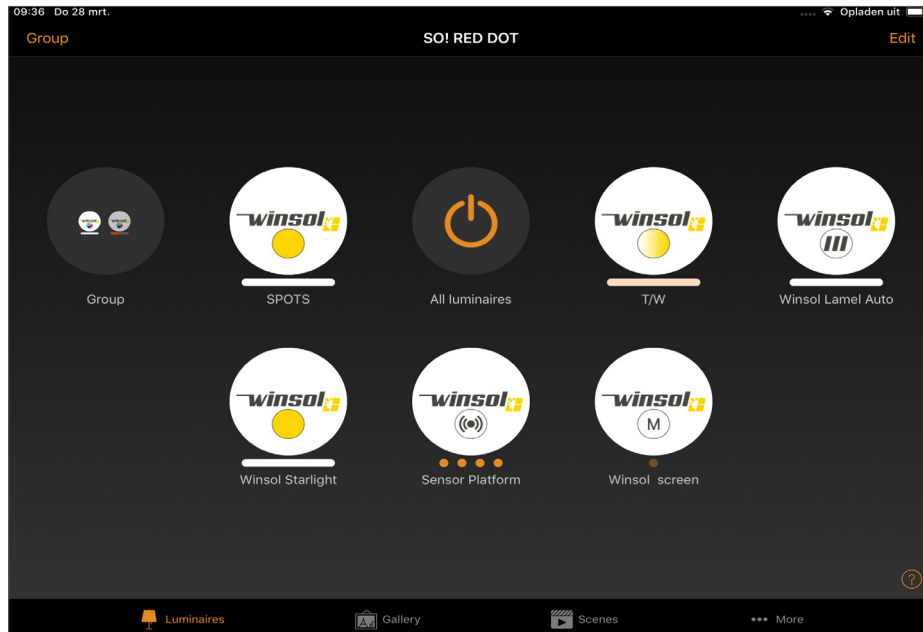
This procedure removes the access to the network from your smartphone/tablet.

1. Select "More" in the bottom menu bar.
2. Go to "change network".
3. Select your network from the list of known networks.
4. Based on your device:
  - iOS: Swipe left on your network.
  - Android: Select & hold.
5. Select "Forget". If you have accidentally logged in using the Administrator password, you will also be shown the "Delete" option. **Never use this option, it dissolves the network and any functionality of your pergola!**

### 3. Casambi SO! network

#### 3.1. Network homepage

When you select a network (and are logged in), the homepage of this network will open. This homepage is divided into 3 sections:



1. A "Title bar" on the top.
2. A main section with "features modules" (circles).
3. A "menus bar" (at the top or bottom, based on your smartphone/tablet).

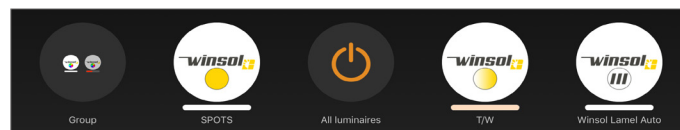
#### 3.2. Title bar



- The network name is in the middle.
- Two action buttons with dynamic page-specific options are shown at both sides.

#### 3.3. Feature modules

##### 3.3.1. Layout:



Each feature module (circles) controls a feature of the Pergola SO! These can be fundamental or optional features:

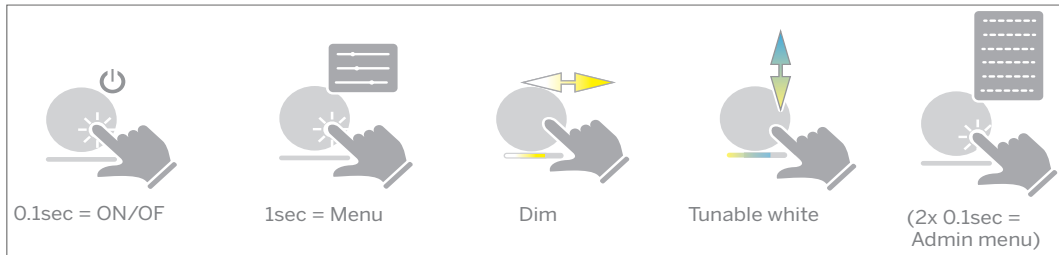
- **Fundamental:**
  - Activate/Deactivate module
  - Motor module (version Cosy / Chique / Star)
  - Sensor module (version Cosy / Chique / Star)
- **Optional (These are not all intercompatible):**
  - Direct LED strip module: Dimmable white 2700K
  - Direct LED strip module: Dimmable & Adjustable white 2700K/6500K
  - Indirect LED strip module: Dimmable & Adjustable white 2700K/6500K
  - Indirect LED strip module: Dimmable RGB
  - Starlight module
  - Spotlight module
  - Screen module (multiple options)
  - ON/OFF module (multiple options, e.g. heating units, etc.)

If you want, you can assign modules to a group (e.g. all screens). These will be presented as one module on the homepage.

- **Exception:**
  - Audio: Controlling outside the Casambi app (see below).
  - Projector: Independent, only connections provided (see below).



3.3.2. Interaction | General:

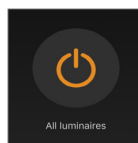


Feature modules respond to the following actions, based on their functionality.

- Hold 0.1 sec.: Activate/deactivate the module.
- Hold 1 sec.: Open "Control menu" with all functionalities.
- Swipe left/right: Rapidly change dim setting without opening the control menu.
- Swipe up/down: Rapidly change colour setting without opening the control menu.
- Hold 2x 0.1 sec.: Only possible for authorised users with administrator password.

3.3.3. Interaction | Activate/Deactivate module:

Icon:



Function:

Activate/Deactivate button for all Casambi-controlled functions (except for louvres, sensors & screens). The modules return to their last setting when re-activated. Please note that audio, sockets & HDMI connections are not controlled by Casambi.

3.3.4. Interaction | Motor module

Icon:

Cosy:	Chique:	Star:

Control menu:

This menu becomes more extensive based on the chosen product options:

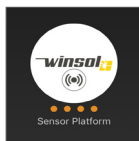
Cosy:	Chique:	Star:

- **Cosy**
  - Louvre Position slider: This allows you to change the positions of the louvres.
- **Chique**
  - Automatic switch: This activates the shade/sun slider and deactivates the other option.
  - Louvre Position slider: This allows you to change the positions of the louvres.
  - Shade/Sun slider: Allows you to change the amount of light.
- **Star**
  - Intelligent switch: This activates the cold/warm slider and deactivates the other option.
  - Automatic switch: This activates the shade/sun slider and deactivates the other option.
  - Louvre Position slider: This allows you to change the positions of the louvres.
  - Shade/Sun slider: Allows you to change the amount of light.
  - Cool/Warm slider: Allows you to change the temperature.



3.3.5. Interaction | Sensor module

Icon:



Control menu:

Cosy:	Chique:	Star:
Wind Sensor <input type="checkbox"/> Rain Sensor <input type="checkbox"/> Sun Sensor <input type="checkbox"/> movement Sensor <input type="checkbox"/>	Wind Sensor <input type="checkbox"/> Rain Sensor <input type="checkbox"/> Sun Sensor <input type="checkbox"/> movement Sensor <input type="checkbox"/>	Wind Sensor <input type="checkbox"/> Rain Sensor <input type="checkbox"/> Sun Sensor <input type="checkbox"/> movement Sensor <input type="checkbox"/>

With the exception of the temperature sensor, the other sensors (present based on your chosen product options) can be deactivated independently. Deactivating sensors can lead to safety risks and both personal and material damage. The actions of the sensors in each situation are set out in the diagrams below.

Louvres:

Rain sensor	Temperature sensor	Wind sensor	
		< 100km/u	≥ 100km/u
Dry	< 3°C	Louvres min 10°	Louvres min 30°
	≥ 3°C	no action	Louvres min 30°
Rain/Snow	< 3°C	90° fix	90° fix
	≥ 3°C	0°	Louvres min 30°

Screens:

Wind sensor	
< 35km/h	≥ 35km/h
No action	Roll up screen

Intelligent:

Motion sensor	Light sensors	Temperature sensor	
		Lower than desired*	Higher than desired*
Present	Sun	Auto. 33%, 66%, or 100% (heating)	Automatic 0% sun (ventilation)
	No sun	Closed louvres (retain heat)	90° (maximum amount of light)
Absent	Sun	Auto. 33%, 66%, or 100% (heating)	Automatic 0% sun (ventilation)
	No sun	90° (maximum amount of light)	90° (maximum amount of light)

\*Cold/Warm slider  
 - cold = 17±3°C  
 - warm = 27±3°C

Examples of Intelligent system:

1. Winter, 6°, adjacent module, sunny day, south-facing, no persons below the pergola
  - Louvres follow the sun, 100% light let in
  - Warmth of the sun is let in to heat up the house.
  
2. Spring, 23°, adjacent module, sunny day, south-facing, no persons below the pergola
  - Louvres closed
  - Shadow created on the house to avoid heating it up too much

Spring, 23°, adjacent module, sunny day, south-facing, persons below the pergola

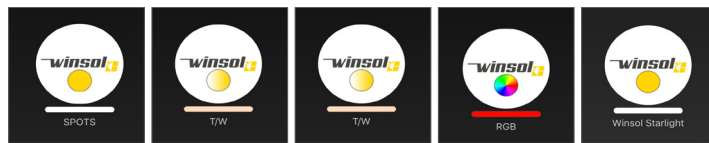
  - Louvres follow the sun, 0% light let in
  - Shade on persons, but ventilation to let heat get away
  
3. Summer, detached module, sunny day
  1. Morning 18°
    - Louvres follow the sun, 100% light let in = Cosy sun warmth
  2. Morning 22°
    - Louvres follow the sun, 50% light let in = Avoids overly high temperatures below the pergola
  3. Afternoon 28°
    - Louvres follow the sun, 0% light let in = Keeping heat out
  4. Evening 21°
    - Louvres follow the sun, 50% light let in = Heat can be let back in
  
4. Autumn, 11°, adjacent module, cloudy day, persons below the pergola
  - Louvres closed
  - trapping heat below the pergola (heating may be on, for example)

Autumn, 11°, adjacent module, cloudy day (no sun), no persons below the pergola

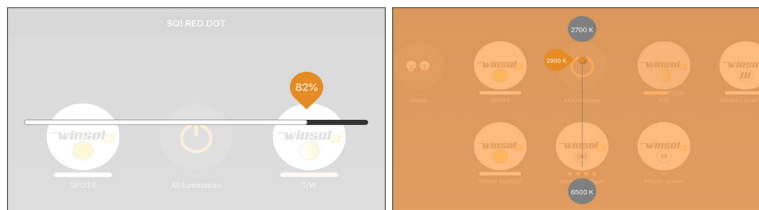
  - Louvres at 90°, light (≠ sun rays) fully let into the house.

3.3.6. Interaction | Lighting modules

Icon:



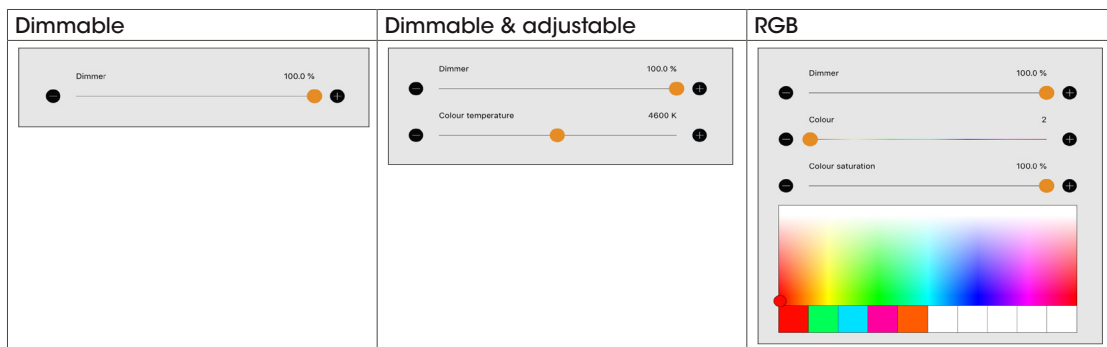
Rapid change:



Swipe on the dimmable and adjustable modules, horizontal or vertical, to change this setting without opening the control menu.

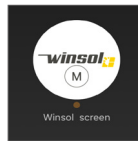
Control menu:

The menu will be expanded based on the chosen product options.



3.3.7. Interaction | Screen modules

Icon:



Control menu:



Use

- Use the screen module to successively lower/stop/raise the screen.
- The screen motor has a built-in thermal security option. This option temporarily turns off the motor when it overheats due to repeated use.
- The end positions of the screen will be configured by your expert during the installation.
- The screen has obstacle detection.

3.3.8. Interaction | On/Off modules

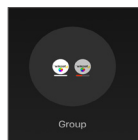
Icon:

Control menu:

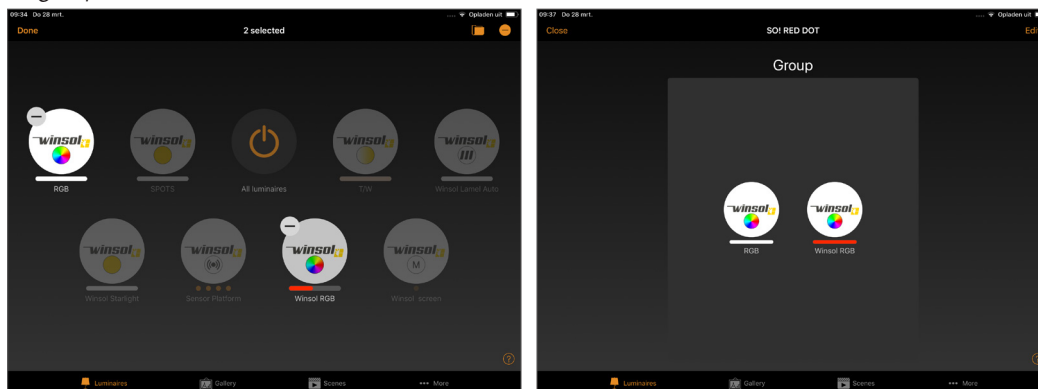
These can control heating units, for example.

3.3.9. Interaction | Group

Icon:



Create group:



1. Select "Group" in the title bar.
2. Select the modules you want to add
3. Select "Done"

Controls:

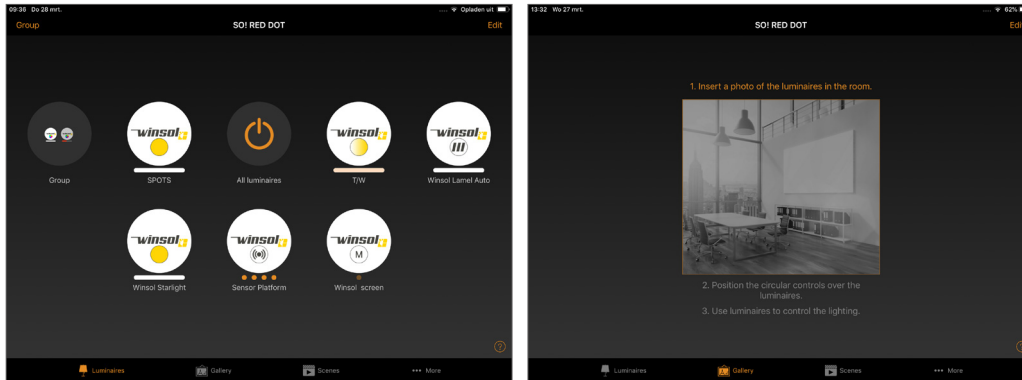
You can control the complete group using the group feature module on the homepage. Or you can open it to control the individual feature modules.

### 3.4. Menu bar



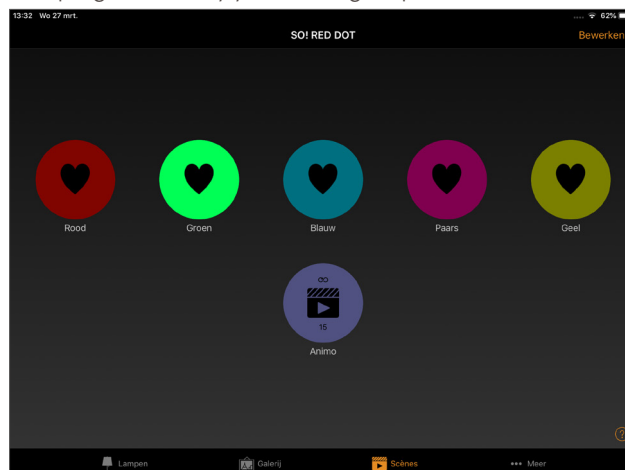
#### 3.4.1. Fittings & Gallery

Change the layout of the feature modules; Fittings is the classic layout, while Gallery is a visual interface with a picture.



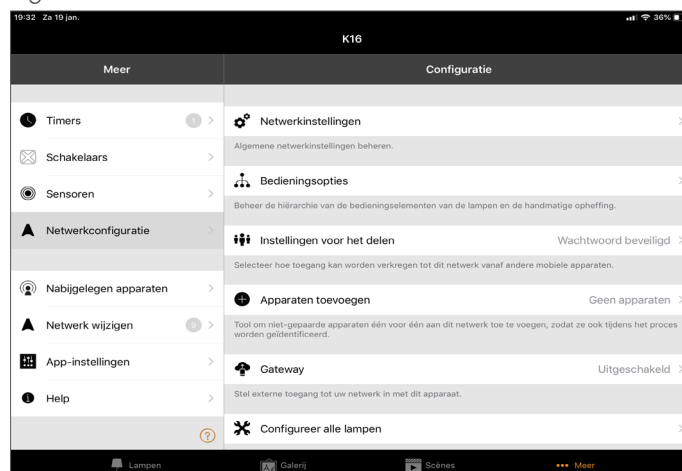
#### 3.4.2. Scenes

You can automatically select pre-programmed scenes here. For example, RGB LEDs that change colour per period. These can be programmed by your awnings expert trained in Casambi.



#### 3.4.3. More

This opens the configuration menu.



- **Timers**  
Timers allow you to activate pre-programmed scenes at defined times.
- **Switch**  
This option shows buttons that can be added to your Casambi network.
- **Sensors**  
This option shows sensors that can be added to your Casambi network.
- **Network configuration**  
Change the settings (location, time zone, name, ...) of your network here.
- **Nearby devices**  
Casambi-ready devices in or outside a network are shown here.
  - "@xxxxx" = Designated to a known network.
  - "Paired" = Designated to an unknown network.
  - "Unpaired" = Not designated to a network.
- **Change network**  
This shows a list of all known networks you can access but that are not necessarily within Bluetooth range.
  - Black networks = Known network within range.
  - Grey networks = Known networks out of range.
  - Lock = No password for this network known.
- **App settings**  
You can change the language settings here.
- **Help**  
Frequently asked questions

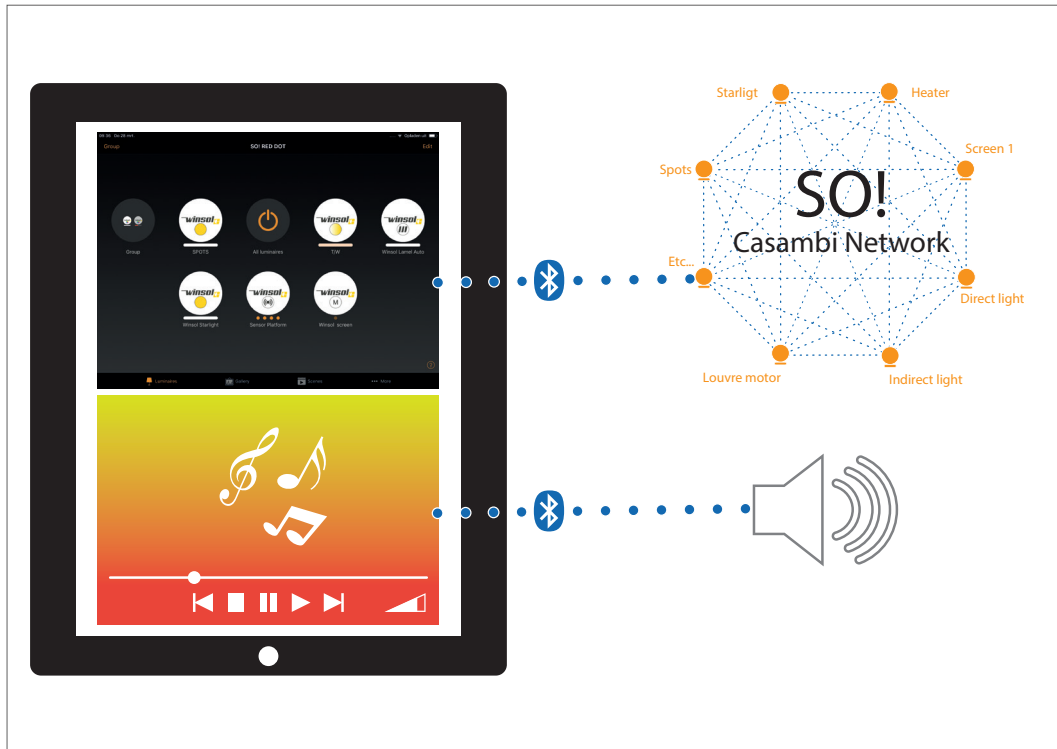
### 3.5. [www.casambi.com](http://www.casambi.com)

Extensive information (general manual, FAQ, ...) about the Casambi-platform can be found at [Casambi.com](http://Casambi.com)

## 4. Audio

### 4.1. Media player

You can stream audio using any media player app on your smartphone/tablet using Bluetooth. This takes place next to the Casambi app, but is not a part of it. Based on the selected product, you will have 2 or 4 audio speakers.



### 4.2. Connecting device

*Steps:*

1. If not yet turned on, activate the Bluetooth connection on your smartphone/tablet.
2. If your device is still connected to another Bluetooth device, you must first select the "Unpair" option.
3. Open the Bluetooth settings and "pair" to (connect with) Winsol audio.
4. Open a media player on your smartphone/tablet.
5. Select your playlist or music files.

## 5. Maintenance

### 5.1. Specifications

#### 5.1.1. Safety

- Always disconnect the power of the pergola when carrying out maintenance or repairs (window cleaning switch or switch cabinet) to ensure the controls are not accidentally activated by third parties.
- Regularly check the product for visible damage. If repairs are needed, the product can no longer be used.
- Clean the pergola at least 2 times per year to maintain the quality of the finish (in urban and slightly urbanised areas). The product must be cleaned at least 3 times per year in industrial environments. Double this frequency at sea, near swimming pools containing chlorine, or in a strongly contaminated area!

#### 5.1.2. Structure

- Use lukewarm water and non-aggressive cleaning agents to clean the varnished or anodised aluminium components. Do not use an abrasive sponge or pressure cleaner.
- Do not leave any dirt on the varnish as this may affect it.

#### 5.1.3. Hinge and pivots

- After cleaning, apply a dry lubricant (silicone or Teflon spray) to ensure moving parts work silently (available at our service centres).
- Avoid oils and greases as they attract dirt.

#### 5.1.4. Screen cloth

##### *Normal cloth properties:*

- Despite the best possible production and confection technology, awning cloth suffers from a number of issues that occur to a greater or lesser extent. However, these issues do not affect the quality and soundness of the cloth and the awning. These imperfections are not errors due to the production process missed by quality assurance, but rather a technical property of the product itself. Corresponding complaints will not be accepted, no products can be refused, and no discounts will be granted. These are the following properties in particular:
  - Stretched due to own weight: The cloth sections have already been tensioned in the mill. However, the cloths may still stretch out a bit, even in relation to each other. This results in waves, and possible sagging, around the cloth seams.
  - Folds/chalk markings: Caused when confectioning and folding the cloths. Pigment shifts may occur in the fold, especially in lighter colours. When held against the light, these will be darker and look like dirty stripes.
  - Cloth sections: The larger the awning, the more cloth sections will be used. Minor colour deviations and pattern shifts may occur between sections. Cloth sections can also react to each other.
  - Discoloured glued edge: The glued edge of glued cloths can experience discolouration.
  - Ripples: Can occur in the middle of a cloth section and is mainly visible when held against the light. This can occur due to tension differences in the fabric.
  - Waves: Caused by overlapping different spool thicknesses on the cloth spool near edges and seams. This creates fabric tension, causing waves (for example, in a waffle or herringbone pattern).
  - Winsol observes the cloth assessment and cloth standards prescribed by Verozo.

##### *Screen cloths - general:*

- The cloth surface has an anti-adhesive layer, which ensures that atmospheric residues cannot stick to it.
- Remove the dust from the cloth with a semi-soft brush and then clean it using lukewarm water. Use non-aggressive detergents dissolved in water for any spots, and rinse afterwards. Never clean it in the full sun, this causes discolouration! Always allow the cloth to dry fully before retracting it. The colour of the screen cloths may, depending on the chosen colour and designs, change slightly or even lose colour in the sunlight. Retracting screen cloths can cause waffle, herringbone, and wave patterns, as well as folds.
- You can remove minor spots using a colourless eraser.

##### *Screen cloths with transparent Cristal PVC:*

- A distinction is made between Cristal windows and the rest of the cloth. Clean the non-transparent section as prescribed for a normal cloth.
- Clean transparent Cristal windows with lukewarm water, and do not retract them while wet. The cloth is more susceptible to shrinkage, expansion, and folds caused by temperature differences.
- Exposure to nicotine and tar residues can cause matt spots after some time.

### 5.2. Damage:

Any damage must be repaired by the dealer or a certified service company. Until this has been done, the screen may not be used.

### 5.3. Repairs or expansions:

- Only components indicated by the manufacturer may be used.
- Repairs that have not been carried out by a dealer are not safe and cannot guarantee that the



- system works properly.
- When using different components, the installer and the end user will always lose their right to warranty during the warranty period.
- A screen is not a supporting element and may not serve as the foundation for other structures.
- Minor adjustments, repairs, or modifications can be made to the awning. Ask your dealer about the options:
  - For example, replacing cloths.
  - Or installing automatic controls, radio controls.

#### 5.4. Troubleshooting

<b>0 General</b>	
0.1	Turn off the power of the pergola, and turn it back on
0.2	Reboot the tablet/smartphone
0.3	Try to test it using a second tablet/smartphone
0.4	Start Casambi and try to connect to the network
0.5	Nearby devices with orange, red, or purple text = pairing failed See video: configure network
0.6	My networks with a lock symbol = not yet logged in = log in to network
0.7	My networks with a grey symbol = network out of range

<b>1 No connection to the network</b>		
1.1	Power supply OK?	YES   Power supplied
	YES	
1.2	Bluetooth on?	YES   Turn on Bluetooth
	YES	
1.3	Restart App or turn airplane mode on and off OK?	YES
	NO	
1.4	Desired network found?	YES   Log in or request new password
	NO	
1.5	Nearby devices found?	YES   See video: Create new network
	NO	
1.6	Stand very close to the receivers OK?	YES   Check the antennae connection
	NO	
1.7	Check the transformers. 12/24V output?	YES   Replace the transformers
		YES   Replace the Casambi module

<b>2 Lighting does not work/respond</b>			
2.1	Connected to the network?	YES   Refer to 1	
	YES		
2.2	Line below round logo?	YES   Replace the lighting	
NO	YES		
	2.2.1	Lighting turned on?	YES   See video: controlling lighting
	NO		
	2.2.2	Connect the lighting to 12/24V. OK?	YES   Replace the Casambi receiver
	NO		
2.2.3	Replace the lighting		
2.3	Check the transformer. 12/24V output?	YES   Replace the transformers	
	YES		
2.4	Replace the Casambi module OK?	YES	
		NO   Go back to 2.2	

<b>3 Audio does not work</b>		
3.1 Power supply OK?	YES	Power supplied
<b>YES</b>		
3.2 Bluetooth on?	YES	Turn on Bluetooth
<b>YES</b>		
3.3 Restart App or turn airplane mode on and off OK?	YES	
<b>NO</b>		
3.4 'Winsol' visible in list with Bluetooth devices?	YES	Device is not compatible
	NO	Somebody is already connected.
3.5 Turn the power off and on. Audio signal?	YES	Device is not compatible
<b>NO</b>		
3.6 Check speakers connection OK?	YES	Arrange the connection
<b>YES</b>		
3.7 Check the antennae connection OK?	YES	Arrange the connection
<b>YES</b>		
3.8 Check the transformer 24V output?	YES	Replace the transformers
	YES	Replace the audio module and/or the speakers

<b>4 Louvres do not work</b>			
4.1 Connected to the network?	YES	Refer to 1	
<b>YES</b>			
4.2 Line below round logo?			
<b>Yes</b>	<b>YES</b>		
	4.2.1 Turn off all sensors Louvres react?	YES	Check settings + hardware sensors
	<b>Yes</b>		
	4.2.2 - Connect brown and blue wires of motor to 24V - Swap brown and blue around Engine reacts?	YES	Replace the motor
	<b>YES</b>		
4.2.3 Test module with new motor OK?	YES	Replace the motor	
	YES	Replace the louvres module	
4.3 Check the transformer 24V output?	YES	Replace the transformers	
<b>YES</b>			
4.4 Replace the Casambi module OK?	YES		
	NO	Go back to 4.2	

<b>5 Sensors do not work</b>			
5.1 Connected to the network?	YES	Refer to 1	
<b>YES</b>			
5.2 Four dots below the round logo?			
<b>NO</b>	<b>YES</b>		
	5.2.1 Sensors turned on?	YES	See video: controlling sensors
	<b>YES</b>		
	5.2.2 - Twist the wind sensor strongly - Clean the rain sensor - Set PIR to max. sensitivity - Clean the solar sensor --> Values visible in App?	YES	
	NO	Replace the sensor	
5.3 Check the transformer 24V output?	YES	Replace the transformers	
<b>YES</b>			

5.4 Replace the Casambi module OK?	YES	
	NO	Go back to 5.2

<b>6 Automatic/Intelligent module does not work</b>		
6.1 Manual controls work?	NO	See 4
YES		
6.2 Louvres module = automatic Or Intelligent module?	YES	Must be updated to different module
YES		
6.3 Automatic/Intelligent turned on?	YES	See video: controlling louvres
YES		
6.4 Orientation + GPS position OK?	YES	See video: Configuring louvres
YES		
6.5 Sensors turned on?	YES	See video: controlling sensors
YES		
6.6 Sensor values displayed and correct?	YES	Refer to 5
	YES	Replace the louvres module

<b>Software errors</b>			
Error code	Zero Engine carried out	Error explanation	Possible cause
0	Yes	No error	
17	Yes	The motor was not initialised	- hardware error of the micro-controller or PCB
18	Yes	The motor experiences excess current	- Broken motor - Overly low value in the parameters - Louvres are blocked
19	Yes	The motor moved in error	- The louvres were forced by hand and moved the motor - The quadrature signals are reversed - The connections of the motor are reversed
20	Yes	The motor does not move	- The motor is blocked - The quadrature signals are not connected - The motor is not connected
33	Yes	The temperature sensor is incorrect, open	- The temperature sensor is not connected - The cable of the temperature sensor is damaged and open
34	Yes	The temperature sensor is incorrect, shortcircuit	- The temperature sensor is broken and shortcircuits. - The cables are connected incorrectly
49	Yes	No time received from the network	- The module is not connected to the network - The configuration of the network is not yet complete
50	Yes	No location received from the network	- The module is not connected to the network - The configuration of the network is not yet complete
51	Yes	No time AND location received from the network	- The module is not connected to the network - The configuration of the network is not yet complete
128	Yes	No error	
145	Yes	The motor was not initialised	- hardware error of the micro-controller or PCB
146	Yes	The motor experiences excess current	- Broken motor - Overly low value in the parameters - Louvres are blocked

147	Yes	The motor moved in error	<ul style="list-style-type: none"> <li>- The louvres were forced by hand and moved the motor</li> <li>- The quadrature signals are reversed</li> <li>- The connection of the motor is reversed</li> </ul>
148	Yes	The motor does not move	<ul style="list-style-type: none"> <li>- The motor is blocked</li> <li>- The quadrature signals are not connected</li> <li>- The motor is not connected</li> </ul>
161	Yes	The temperature sensor is incorrect, open	<ul style="list-style-type: none"> <li>- The temperature sensor is not connected</li> <li>- The cable of the temperature sensor is damaged and open</li> </ul>
162	Yes	The temperature sensor is incorrect, shortcircuit	<ul style="list-style-type: none"> <li>- The temperature sensor is broken and shortcircuits.</li> <li>- The cables are connected incorrectly</li> </ul>
177	Yes	No time received from the network	<ul style="list-style-type: none"> <li>- The module is not connected to the network</li> <li>- The configuration of the network is not yet complete</li> </ul>
178	Yes	No location received from the network	<ul style="list-style-type: none"> <li>- The module is not connected to the network</li> <li>- The configuration of the network is not yet complete</li> </ul>
179	Yes	No time AND location received from the network	<ul style="list-style-type: none"> <li>- The module is not connected to the network</li> <li>- The configuration of the network is not yet complete</li> </ul>

<b>Structure</b>		
Problem	Possible cause	Solution
Creaking noise in the structure	Various materials expand differently when exposed to heat.	None, expansion is unavoidable
Consult your installer in case of other errors.		

<b>Screens</b>		
Problem	Possible cause	Solution
Engine controls are not working	Sensors detect overly low temperatures	
	Sensors detect too much wind	
	No power	Check fuse cabinet
	Thermal security active	Let the motor cool down for 30 mins
	Mechanical blockage	Remove the blockage
	Defect motor	Have the defect component replaced
	Shortcircuiting	Check fuse cabinet
Engine does not stop in the right position	End switches adjusted	Consult the remote manual or contact the installer.
Cloth does not move down	Bottom slat retracted into the cabinet too tightly.	Carefully pull the bottom slat down by hand.
Consult your installer in case of other errors.		

<b>Glass/wooden panels</b>		
Problem	Possible cause	Solution
Panels move by themselves	The ground conductor is not level	Raise the ground conductor until it is level
Condensation on the glass	Condensation is created by humidity getting into contact with cold surfaces	Condensation cannot be avoided The amount can be limited by ventilation or heating
Consult your installer in case of other errors		

### 5.5. Repairs:

Repairs may only be carried out by your certified dealer

### 5.6. Recycling:

This pergola may only be disassembled by an experienced professional

- Disconnect from power supply
- Carry out the disassembly in the reverse order of the assembly
- Make sure that components do not fall down uncontrolled during the disassembly
- Observe the local environmental conditions
- Metal components can be recycled without a loss of properties

## 6. Warranty conditions

In addition to the statutory warranty rights of the buyer vis-à-vis the purchaser, and without limiting these rights, Winsol N.V. provides the following warranty to the buyer for the new SO! patio pergola:

### 6.1. Duration of the warranty

The warranty period of a SO! pergola which has been installed correctly, used normally, and maintained as prescribed, lasts:

1. 5 years for the structure of the SO! patio pergola and the components manufactured by Winsol.
2. 5 years on the varnish of the detachment, corrosion, flaking, blistering, dechalking, discolouration, and loss of shine in accordance with the Qualicoat standards if the SO! pergola is not located in a sea climate, industrial zone, or very aggressive environment. In such aggressive climate, the warranty will last for 2 years if the special warranty conditions are strictly and demonstrably complied with.
3. If the warranty period on components delivered by an external supplier deviate from the 5-year warranty period specified by Winsol, the warranty period of the external supplier will apply:
  - 2 years on the motor moving the louvres. This can be expanded to 5 years if the end consumer and the dealer/installer provide the completed and signed transfer document to Winsol online and through the requested website immediately after the correct installation.
  - 5 years on the engines moving the screens.
  - 5 years on the screen cloths, except for the video projection cloths and the screen cloths with transparent Cristal PVC window. These last 2 examples are governed by a warranty period of 2 years.
  - 2 years on the LED lighting, the electric heating, the audio equipment, the automatic drives, and their controls.

### 6.2. Start of the warranty period

The warranty period takes effect on:

1. The warranty period for the professional seller and/or installer starts on the date of the pergola listed on the sales invoice.
2. This warranty period starts for the end user at the time of the final installation and commissioning of the pergola.
3. Both dates can be set on the date most beneficial to both parties if the end user and the seller/installer submit a transfer delivery protocol to Winsol signed by both parties. This will take place by completing an online document found on the Winsol website.
4. The warranty period will not be extended by warranty work and replacement deliveries in the context of the warranty.

### 6.3. Warranty conditions

The following conditions must be met in order to make use of the warranty:

1. The device must be purchased from an authorised SO! pergola dealer or a Winsol store.
2. The installation of the SO! pergola must have been carried out by an installer certified by Winsol.
3. The payment to Winsol must have taken place in full.
4. If no online transfer protocol has been completed, the original warranty document or purchase invoice must be demonstrated to Winsol upon its request.

### 6.4. Subject of the warranty and the functions of the pergola

The SO! pergola is an aluminium patio pergola with adjustable aluminium louvres as its top structure.

It is controlled using an electric motor connected to a smartphone or tablet with iOS or Android operating system, and can be linked to solar, wind, motion, rain, and temperature sensors.

The sides of the SO! pergola can be closed using the built-in SolFix screens with screen cloth, possibly equipped with a transparent Cristal PVC window.

These screens are controlled using an electric motor connected to a smartphone or tablet with iOS or Android, and can be equipped with automatic drive units with wind and/or solar sensors. Sliding walls with glass or wooden panels are also possible. The glass sliding walls are even available in combination with built-in screens.

The sides of the SO! pergola can also be closed using sliding walls with 10 mm thick safety glass or wooden panels in an aluminium frame, possibly equipped with a screen cloth along the outside.

The SO! pergola can be installed both detached and against a façade. It can also be installed in a modified roof recess.

Multiple SO! pergola modules can be placed next to or linked to each other (from the end of 2019) to create shade for longer or wider surfaces.

However, the SO! pergola is still a patio pergola and not suitable as permanent living space. This patio pergola is also unsuitable as a storage area for possibly valuable furniture and objects.

### 6.5. Contents and scope of the warranty

1. Winsol values the quality of its SO! patio pergola and strives to repair any defects caused by manufacturing errors during and outside of the warranty period within a reasonable period.
2. In case of installation by Winsol employees: during the warranty period, the warranty covers the free repair or replacement of components if the discovered issue is accepted as a manufacturing error by the Winsol complaints service.
3. In case of sale and installation by third parties: during the warranty period, the warranty covers the free shipment of components to be repaired or replaced if the discovered issue is accepted as a manufacturing error by the Winsol complaints service. The warranty does not cover the assembly, relocation costs, or any hourly wages.
4. Repairs during the warranty period do not include any additional right to compensation vis-à-vis Winsol to cover direct or indirect damage, losses, or loss of profits.
5. Replaced components or engines must be delivered to the Winsol quality department at its request for further investigation and will become the property of Winsol by operation of law.
6. Repairs during the warranty period do not extend the original warranty period of the SO! pergola or the repaired or replaced component.
7. The warranty does not cover the smartphone or tablet used to control the SO! pergola, or any components or consumables for these devices.

### 6.6. Warranty limitations

Not covered by the warranty are damage, shortcomings, or errors due to:

1. Incorrect installation or operation, for example caused by a failure to observe applicable safety regulations or instructions in the user manual, installation manual, and assembly manual.
2. Abnormal use or obvious misuse, such as incorrect operations, unsafe use, use during freezing weather, non-prescribed modifications, or forced stress on the patio pergola, or the components of the SO! pergola.
3. The failure to observe the maintenance requirements, prescribed periodic cleaning work, and the failure to carry out replacements or repairs based on product improvement actions.
4. Repairs and modifications carried out by service organisations or installers not trained or certified for this work by Winsol, as well as the use of non-original Winsol components and accessories not provided by Winsol.
5. Transport, wrong storage, or damage caused by mechanical impacts or falls.
6. Installation in an aggressive climate with high salt levels (<10km from the sea), or in an industrial region with emissions of corrosive products.
7. Power and voltage fluctuations more than 5% outside of the tolerance range indicated by Winsol.
8. Glass breakage caused by uneven shade
9. Use of insufficient or insufficiently strong wall or surface mounts.
10. Folds in the screen cloths or scratches, discolouration or loss of shine of Cristal PVC windows in screen cloths, grey discolouration of the wooden sliding panels.
11. Damaged or distorted louvres caused by snow accumulation on the top structure, even if a rain and temperature sensor for snow detection has been installed.
12. Damaged screen cloths or cloths with broken zippers, even if a wind sensor has been installed.
13. Discolouration, spots, and odour nuisance on the screen cloths due to bird faeces or wet screen cloths that have been retracted for too long (> 24hr).
14. Normal wear and tear or old age

### 6.7. End of the warranty period

All claims based on shortcomings will expire at the end of the contractual warranty period.

### 6.8. Data protection

Your personal data will only be used to process your order and to process warranty claims, with due observance of laws and regulations.



## 7. EC Conformity Declaration

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## 8. Maintenance log

**Work performed**

Conclusion:
Work carried out:
Installer date & signature:

**Work performed**

Conclusion:
Work carried out:
Installer date & signature:

**Work performed**

Conclusion:
Work carried out:
Installer date & signature:

**Work performed**

Conclusion:
Work carried out:
Installer date & signature:

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