

# **CARAVITA**®

Assembly and operating instructions

# 1 Foreword

# **Foreword**

We are pleased that you have chosen our product. By purchasing a CARAVITA product, you have chosen quality made from the best materials and designed to meet the highest standards.

Read the instructions in this document carefully to set up the product safely. Always observe the safety instructions listed and do not perform any unauthorised modifications to the product.

# **Imprint**

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# 2 Introduction

# 2.1 Safety instructions

It is important for the safety of persons to follow the instructions. Failure to observe the instructions may result in personal injury and/or damage to property when using the product. Failure to comply shall release Caravita from liability.



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



- Read the instructions before installing and using the product!
- Observe the safety, setting, operating and maintenance instructions!
- When passing on the product, give the instructions to the new owner!
- Keep the instructions until the product is disposed of!

# 2.2 Notes on the target group and use of the instructions

# **Target group**

The instructions are intended for persons who install, operate, maintain and/or service the product.

Work relating to the electrical connection of the components may only be carried out by a qualified electrician.

For assembly, knowledge of occupational safety, accident prevention regulations, handling ladders, installation of fastening materials, commissioning and operation of the product must be available.

If one of these qualifications is not available, a specialised installation company must be commissioned.

## **Contents**

These instructions belong to the following product: Caravita Big Ben with optional motor

# 2.3 Explanation of the signal words



# **DANGER**

Indicates an imminent danger that will result in death or serious injury.



# **WARNING**

Indicates a potentially imminent danger that could lead to death or serious injury.



# CAUTION

Indicates a possible imminent danger that could lead to minor injuries.



# NOTE

Indicates a potentially imminent situation that could lead to product or property damage.

# 2.4 Basic safety instructions

The safety instructions and warnings listed serve to protect your health and the product. The instructions must be read carefully and followed.

Damage caused by improper handling or failure to follow the instructions is not covered by the warranty. No liability is assumed for consequential damage!



# **WARNING**

If a radiant heater is available, follow the instructions for the radiant heater!

# **General safety instructions**



## **WARNING**

Risk of injury when repairing the product!



The product is firmly connected to a power supply. This can lead to hazards during repair work.

Disconnect the product from the power supply and secure it against being switched on again.



## **DANGER**

Danger to life and limb if the sunshade falls over

The sunshade can tip and fall over due to weather conditions or mechanical impact with its heavy weight.

- Only use the sunshade for its intended purpose.
- In strong winds and thunderstorms, retract the sunshade or do not set it up.
- Do not climb on the sunshade.
- Do not leave children near the sunshade without supervision.
- Do not use the sunshade without a suitable stand.
- Do not leave the sunshade unattended.
- Only use the sunshade as sun protection when it is fully extended.



### DANGER

Fire hazard due to flying sparks

The fabric of the sunshade is flammable.

Do not use flames or open fire near the sunshade.



# **DANGER**

Danger to life and limb from lightning strikes

The sunshade can become a lightning

conductor.

Never seek shelter under a sunshade during thunderstorms.



# DANGER

Choking hazard due to packaging material

Plastic films, polystyrene parts and small parts from the packaging can become dangerous toys for children.

- Keep children away from small parts.
- Do not leave packaging material lying around carelessly.



# CAUTION

Risk of injury due to tipping

Carelessness can cause the sunshade to tip over with its heavy weight.

- Two people are always required for assembly.
- The base must be designed with sufficient ballast to prevent the closed sunshade from tipping over in strong winds.



# **WARNING**

Risk of injury to uninvolved persons

If people are within the opening radius of the sunshade canopy, they may be injured if they are not careful when opening the canopy.

- Before opening the sunshade roof, ensure that no bystanders are within the opening radius of the sunshade roof.
- Always maintain visual contact with the sunshade as long as it is open.
- Only open the sunshade when there is no wind or the wind is only blowing lightly.
- The sunshade must not be opened by a higher-level controller.

# **Wind limits**

The following table shows the maximum permissible wind speeds in kilometres per hour / Beaufort depending on the shape and size of the sunshade:

| Sizes round*   | 3 m  | 3.5 m | 4 m  | 4.5 m | 5 m  | 5.5 m | 6 m  |
|--|------|-------|------|-------|------|-------|------|
| max. permissible wind (open, fastening with ground socket) | 65/7 | 65/7  | 60/7 | 60/7  | 55/7 | 55/7  | 50/7 |
| max. permissible wind (open, mobile umbrella stand)        | 50/7 | 50/7  | 50/7 | 45/6  | 40/6 | 40/6  | 40/6 |

| Sizes square*  | 3 x 3 m | 3.5 x 3.5<br>m | 4 x 4 m | 4.5 x 4.5<br>m | 5 x 4 m | 5.5 x 5.5<br>m | 6 x 6 m |
|--|---------|----------------|---------|----------------|---------|----------------|---------|
| max. permissible wind (open, fastening with ground socket) | 65/7    | 65/7           | 60/7    | 60/7           | 55/7    | 55/7           | 50/7    |
| max. permissible wind (open, mobile umbrella stand)        | 50/7    | 50/7           | 50/7    | 45/6           | 40/6    | 40/6           | 40/6    |

| Sizes rectangular*   | 3 x 4 m | 3.5 x 4.5<br>m | 4 x 5 m | 4.5 x 5.5<br>m | 5 x 6 m | 5 x 6.5 m | 5 x 7 m |
|--|---------|----------------|---------|----------------|---------|-----------|---------|
| max. permissible wind (open, fastening with ground socket) | 60/7    | 55/7           | 55/7    | 50/7           | 45/6    | 40/6      | 40/6    |
| max. permissible wind (open, mobile umbrella stand)        | 50/7    | 45/6           | 40/6    | 35/5           | 35/5    | 35/5      | 35/5    |

| Freestyle (longest edge length)                            | 4 m  | 4.5 m | 5 m  | 5.5 m | 6 m  |
|--|------|-------|------|-------|------|
| max. permissible wind (open, fastening with ground socket) | 55/7 | 40/6  | 40/6 | 35/5  | 35/5 |
| max. permissible wind (open, mobile umbrella stand)        | 45/6 | 40/6  | 35/5 | 35/5  | 35/5 |

<sup>\*</sup> Big Ben sunshade in standard version without wind roof and without additional equipment.



# **NOTE**

Use free weather warning apps such as WarnWetterApp, Nina, WetterOnline or KATWARN to be warned of severe weather in the region.

# Operation

Operating a defective product can injure people and/or damage neighbouring parts.

▶ The product may only be operated if it is in perfect technical condition.

# Assembly preparation

Incorrect assembly can impair the safety, function and service life of the product. Persons may be injured and/or the product or neighbouring parts may be damaged.

- ► The specified installation steps and their sequence must be observed.
- ▶ The product may only be installed if it is in perfect technical condition.
- The assembly substrate must be checked for load-bearing capacity before mounting.

# 3 Information about product

The Big Ben sunshade from Caravita is a large, stable and flexible shade provider for patios or gardens. It provides excellent protection against direct sunlight and harmful UV radiation.

The Big Ben can be operated either manually using a crank handle or conveniently with a motor. The sunshade roof is made of easy-care material.

The Big Ben can be equipped with extras such as LED lighting, radiant heaters or a motorised drive and other extras. The sunshade is an ideal choice for anyone who wants to create a comfortable and attractive outdoor area.

# **Technical data**

The products are exclusively customised and made to measure. Dimensions and weight vary depending on the model version.

The exact weight and size of the product can be found on the order or delivery note.

# 3.1 Intended use

The following information applies to the following product:

Caravita Big Ben with optional motor

The product is an external sun shading system that is used to protect against heat and glare in summer. The product is free-standing and is used to shade open spaces.

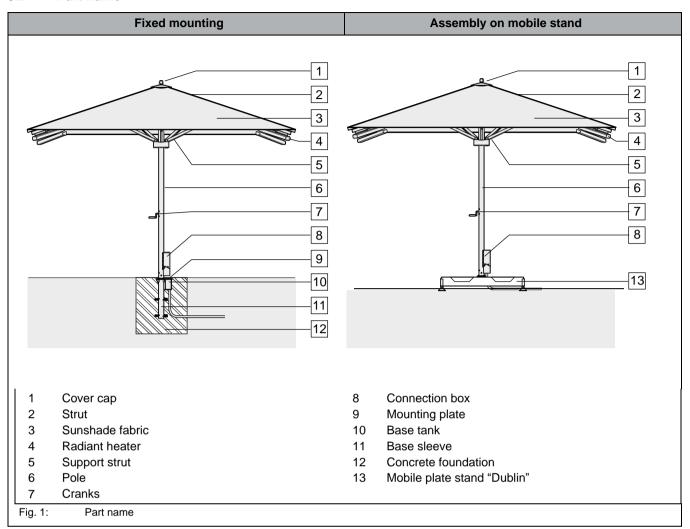
The product is to be used as sun protection and not as rain protection.

Misuse can result in considerable hazards.

Additional loads on the product due to suspended objects or cable tensioning can lead to damage or falling and are therefore not permitted. Caravita is not liable for any damage resulting from this.

Intended use also includes observing these instructions and complying with the maintenance specifications contained therein.

# 3.2 Part name



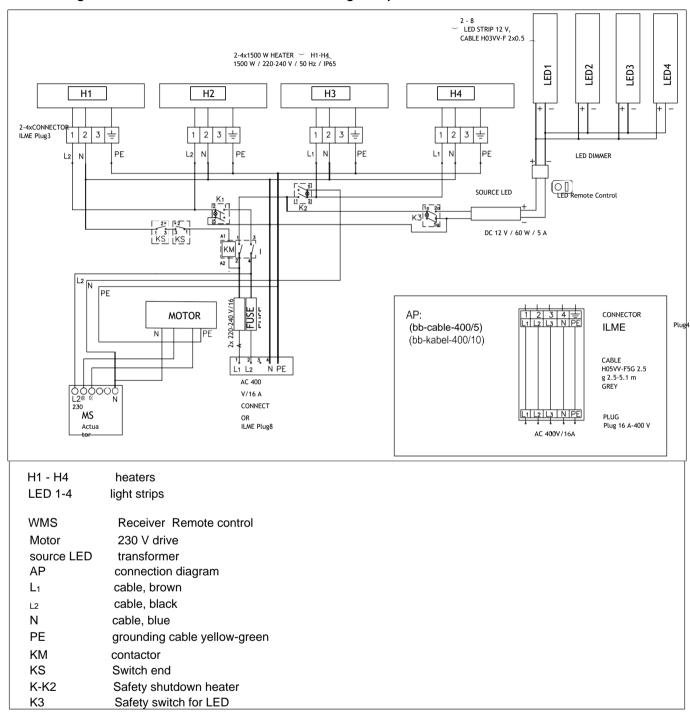
# 3.3 Data for electric drive

| Parameters (motor drive without solar panel) | Value           |
|--|-----------------|
| Power consumption                            | 1.00 A          |
| Nominal voltage                              | 230 V/50 Hz     |
| Protection type                              | IP 44           |
| Short-term operation (S2)                    | 6 Min           |
| Emission sound pressure level                | LpA ≤ 70 dB(A)* |

<sup>\*</sup> With standard installation of the product on the test bench, the noise emission level is < 70 dB(A). The value may vary due to assembly.

# 3.4 Electrical connection

# Circuit diagram for 2 to 4 radiant heaters and 2 to 8 LED light strips



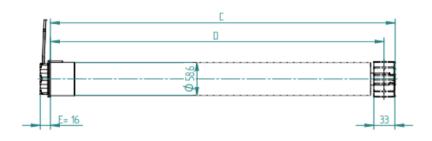
# 3.5 Data for solar

# Data for solar

The specified technical data are subject to tolerances (according to the respective standards).

| Size / type                     | Solar panel 10 |
|---------------------------------|----------------|
| Rated voltage [V]               | 12 (DC)        |
| Nominal power [W]               | 10             |
| Voltage at maximum power [V]    | 17             |
| Current at maximum power [mA]   | 590            |
| Connection box protection class | IP65           |

| Parameters (motor drive with solar panel) | L868 DC     |
|---|-------------|
| Rated power consumption [W]               | 135         |
| Shaft diameter                            | 63          |
| Power consumption                         | 8.00 A      |
| Nominal voltage                           | 12 V        |
| Protection type IP                        | 44          |
| Switch-on range (revolutions)             | 40          |
| Operating time (min S2)                   | 10          |
| Length C [mm]                             | 542         |
| Length D [mm]                             | 525         |
| Length E [mm]                             | 16          |
| Weight [kg]                               | 3.78        |
| Operating ambient temperature [°C]        | -2060       |
| Protection class III                      | <b>(II)</b> |
| Connecting cable pluggable [m]            | 1.0         |
| Item number                               | 36403001    |



| Size / type                     | Radio hand-held transmitter |
|---------------------------------|-----------------------------|
| Operating voltage [V]           | 3 (DC)                      |
| Channels                        | 1                           |
| Battery type                    | 2 x LR06 (AA Mignon)        |
| Temperature range               | 0 to +55°C                  |
| Connection box protection class | IP20                        |
| Radio frequency                 | 869.525 MHz                 |
| Weight in grams (incl. battery) | 120                         |



### **CAUTION**

Risk of injury due to tipping during assembly

Tipping or dropping the product can result in serious injuries.

- At least 2 people are required to assemble and set up the product.
- Mount the product on a level surface.



### NOTE

When installing several sunshades, a distance of 25 cm must be maintained between the individual sunshades.

We are happy to answer questions about installation by e-mail or via our service hotline. The contact details are listed on the first and last page of this document.

# 4.1 Unpacking the product



### DANGER

Choking hazard due to packaging material

Plastic films, polystyrene parts and small parts from the packaging can become dangerous toys for children.

- Keep children away from small parts.
- Do not leave packaging material lying around carelessly.



## **NOTE**

The cardboard box is reused as a space-saving storage box for storing the sunshade.

Do not cut or tear the box when unpacking.

# Remove the sunshade from the packaging

- 1 Check the packaging for damage.
- 2 Carefully cut the adhesive tapes and plastic straps with a knife without damaging the sunshade in the box.
- 3 Carefully unpack the sunshade and the individual parts.
- 4 Check the contents of the packaging for completeness and defects.



# NOTE

In the event of obvious defects in the packaging or incompleteness of the delivery, the specialised dealer, forwarding agent or manufacturer must be informed immediately in order to assert claims for damages and compensation.

5 Properly dispose of the remaining packaging material (polystyrene, plastic).

# 4.2 Transporting the product

The product can be transported without additional aids.

Due to the weight and size of the product, 2 people are required for transport, so that one person carries the front end and one person carries the rear end of the sunshade.

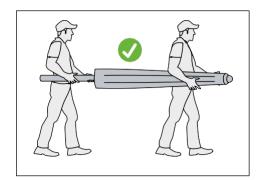


# NOTE

Material damage due to cracks and bent struts

Careless transport can damage the sunshade roof.

- Do not pull the sunshade over the ground by the sunshade cover or the protective cover.
- Do not carry the sunshade by individual sunshade struts.



Hold the sunshade with both hands during transport.

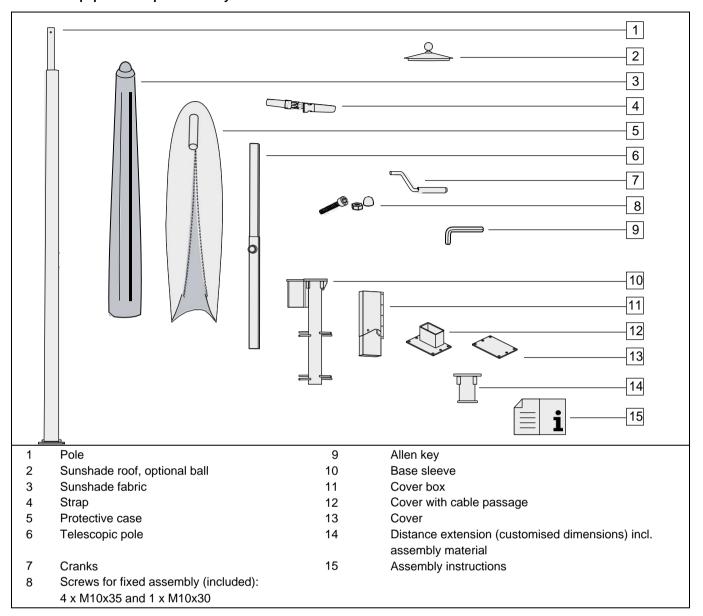
# 4.3 Scope of delivery



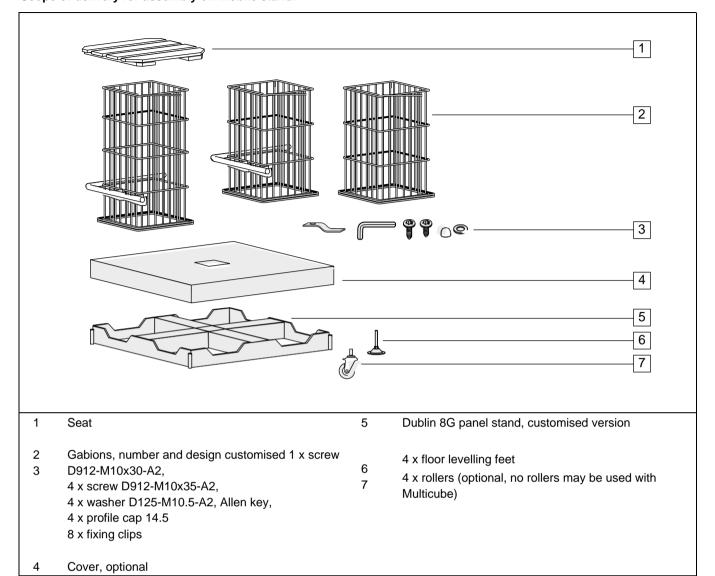
# INFO

- Check scope of delivery according to delivery note!
- Check parts for intactness!
- Compare the situation on site with the order data!
- Interrupt installation and contact WAREMA if parts are damaged or if the specifications do not correspond to the order!

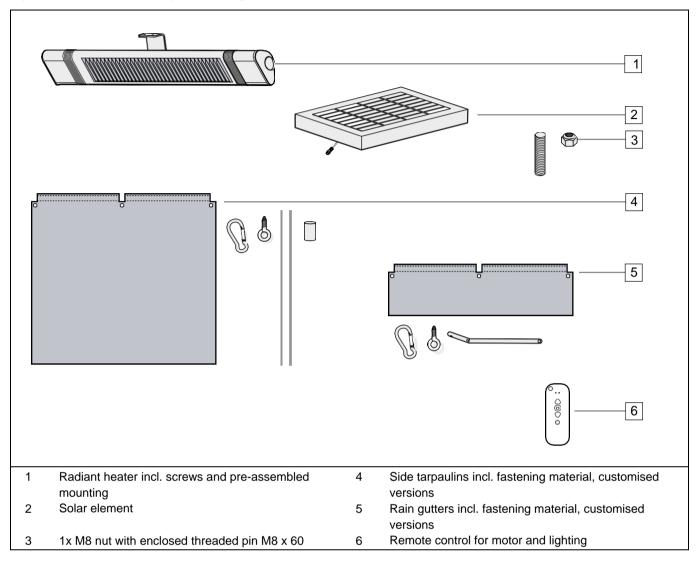
# Standard equipment scope of delivery:



# Scope of delivery for assembly on mobile stand:



# Options included in the scope of delivery:



# 4.4 Position of the product

The figure shows an example of a sunshade with base sleeves and screw-on stand (optional):

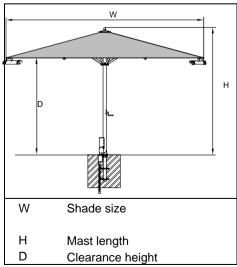


Fig. 2: Big Ben order details

Observe the distances to be maintained when setting up sunshades in groups:

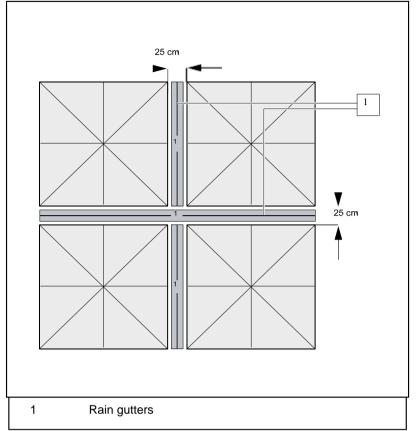


Fig. 3: Spacing for sunshades in groups

# Post mounting types INFO

(i)

Observe the special features of the fastening types of the listed components and arrange for any necessary preparatory work.

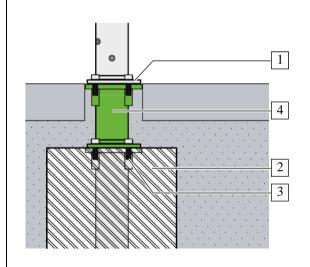
- Pole
- ▶ Base sleeve, if applicable
- ► Electrical connections, if applicable

# Base assembly directly on foundation [2]

The base plate [1] is fastened directly to the foundation [2] using suitable fastening material [3].

3

# Base assembly with distance extension [4]



Fasten the distance extension [4] to the foundation [2] using suitable fastening material [3]. Attach the base plate [1] to the distance extension [4].



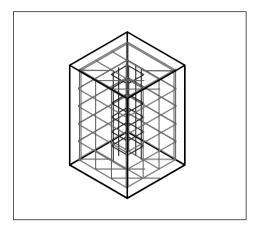
# INFO

▶ DIN 1045 and a frost-free foundation must be observed for the foundation. The edge distances of the fixing points must be taken into account.

1

► The foundation for fixing the base plate or the distance extension must have been poured in compliance with the processing guidelines.

# 4.5 Types of base connection



# (i)

# **INFO**

- ▶ DIN 1045 and a frost-free foundation must be observed for the foundation. The edge distances of the fixing points must be taken into account.
- ▶ The foundation for fixing the base plate must have been poured in compliance with the processing guidelines.
- ▶ The base sleeve must be connected horizontally and vertically with wire and aligned. ▶

The crank is always located opposite the electrical connection.

# 4.6 Installing the base sleeve with base tank



# **INFO**

The procedure for the floor connection used must be observed.

# **Binding reinforcement**

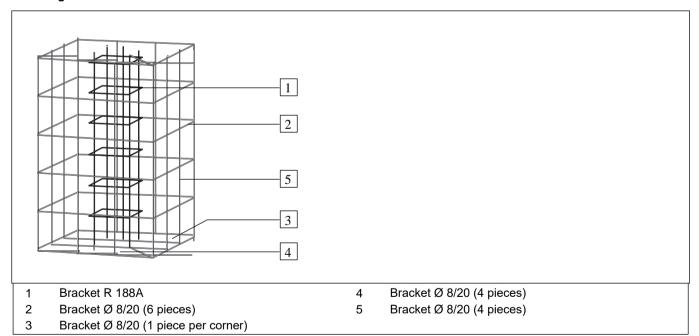


Fig. 4: Binding reinforcement

Binding reinforcement.

# Position of the base sleeve



### INFO

When setting the base sleeve in concrete, note the desired alignment of the sunshade. The sunshade can only be attached to the base sleeve in the orientation specified here.

Pay particular attention to the alignment of rectangular sunshades: the position of the short and long sides is already determined by the alignment of the sleeve!

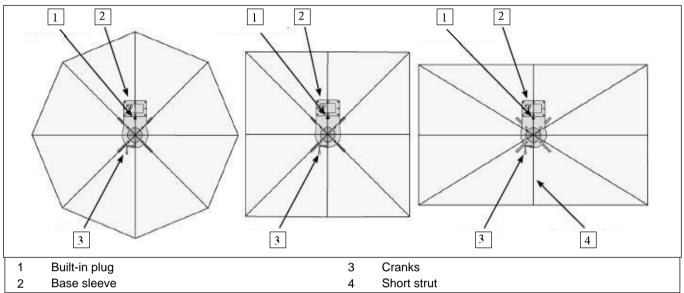


Fig. 5: Note base sleeve for alignment

# Embed base sleeve with base tank in



# concrete INFO

Foundations for loose sand or gravel-sand soils: for sandy soils, further verifications and possibly larger foundations are required.

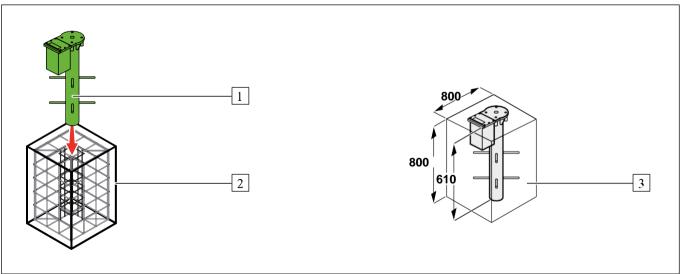


Fig. 6: How to set the base sleeve in concrete

- 1 Base sleeve
- 2 Reinforcement
- 3 Foundation hole

- Excavate the foundation hole [3].
- Insert the reinforcement [2] into the foundation hole [3].
- Insert base sleeve [1] into foundation hole [3]. The specified depth (800 mm) must be observed.
- Pour the foundation using at least C20/25 concrete and in compliance with the processing guidelines.
- Allow the foundation to set before further processing.

# 4.7 Lay underground cable for power supply

The following diagram shows the connection of the underground cable for the power supply to the base tank:

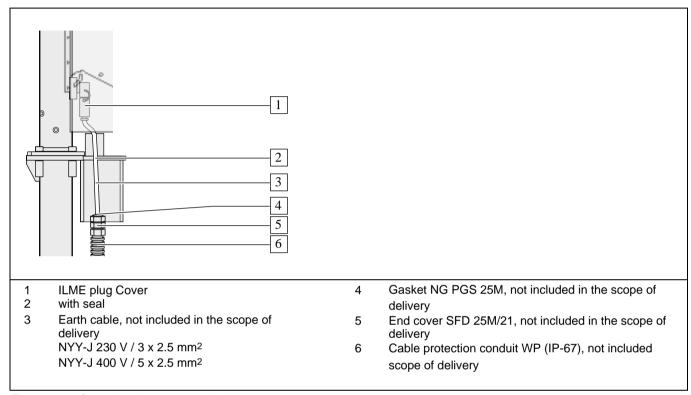


Fig. 7: Connecting the underground cable

# 4.8 Installing mobile stands

The product is difficult to move without additional aids due to the weights. Roller sets can be fitted or the product can be moved with a pallet truck for relocation.

# Fitting the panel support Dublin



# DANGER FROM ELECTRICITY

Electric shock due to damaged cables

When moving the plate stand with the power cable connected, these can be run over and damaged.

- Only use cables suitable for damp rooms.
- Protect cables from damage and crushing using protective devices.
- Disconnect the plug from all poles before moving the stand.
- Disconnect unused extension cables from the power supply.
- Keep cables away from children.
- Keep cables away from animals, liquids and snow.
- Do not overheat the cable.
- Do not use cables if they are wet.
- Do not wind, bend or pull on cables when they are in use.
- Only fasten cables with suitable fastening material.



# WARNING

Crushing due to falling plates.

Fingers or feet can be crushed by heavy stone slabs, e.g. when tilting the sunshade stand.

- Always secure the sunshade stand when moving it.
- Do not reach under or into open spaces while moving.
- Do not place any limbs under the sunshade stand.
- Observe the weight limit for roller assembly of max. 320 kg total weight for stand and sunshade.
- Observe the weight limit for assembly with floor levelling feet of max. 550 kg total weight for upright, sunshade and additional weights.
- Ensure that the route is free of obstacles.
- When using Multicube, only screw on floor levelling feet.



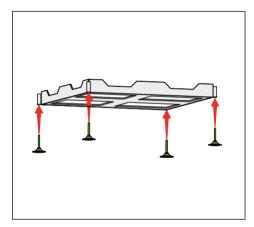
# **WARNING**

Crushing of limbs in sunshade parts.

Fingers or feet can be crushed if they are trapped between the roller and the stand or floor.

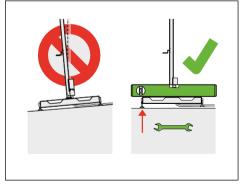
- As soon as the mobile stand has reached its final position, press in the castor lock.
- Observe the weight limit for roller assembly of max. 320 kg total weight for stand and sunshade.
- Observe the weight limit for assembly with floor levelling feet of max. 550 kg total weight for upright, sunshade and additional weights.
- Ensure that the route is free of obstacles.



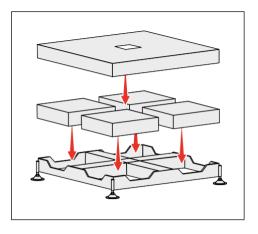


2 Screw in the 4 rollers or the 4 floor levelling feet and tighten with the screws supplied.

Due to the high weights, no rollers may be fitted to Multicube.



3 If floor levelling feet have been fitted, use them to level the plate stand.



- 4 Insert the concrete slabs (to be provided by the customer) into the openings provided.
- 5 Fit the cover for Dublin (optional).

# 4.9 Assembling the solar panel (optional)

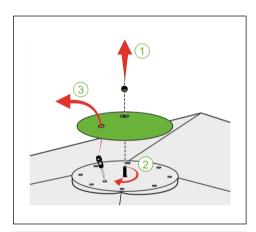
The solar element consists of a metal box with rechargeable batteries, a control unit and a fuse. The electricity generated runs via a cable from the solar element, along the inside of the pole to the motor at the base of the pole.



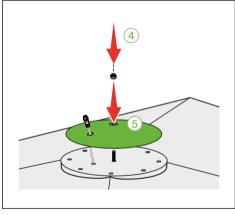
### NOTE

The solar element cannot be connected to other loads such as the LED light. Use the battery LEDs provided for this purpose.

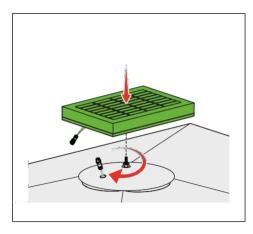
With the solar-powered version, the solar element must be assembled at the top of the pole:



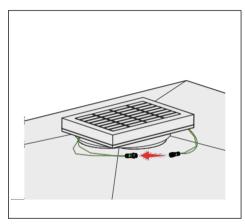
- 1 Remove the cover cap (1) and screw in the enclosed threaded pin (2).
- 2 Thread the cable through the hole in the cover cap so that it only protrudes a few centimetres (3).



- 3 Replace the cover cap (5).
- 4 Screw the nut onto the threaded rod and tighten (4).



5 Screw the solar element onto the centre of the threaded rod.



- 6 Connect the two plug ends.
- 7 Stow the plug between the solar element and the cover cap.



# NOTE

The solar element requires approx. 20 - 30 minutes charging time to ensure initial opening of the sunshade. The batteries are pre-charged, but discharge over time.

# Operation via power supply unit

If the sunshade cannot be operated using the batteries, it is possible to switch to power supply operation.

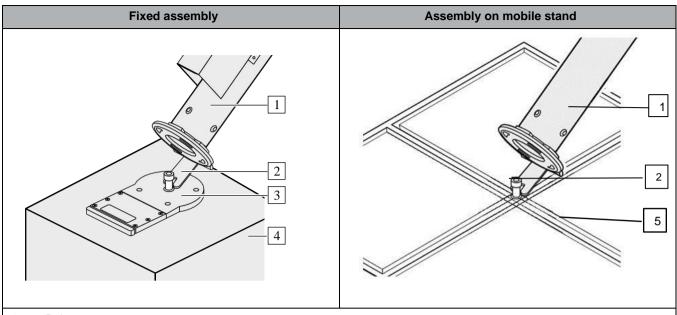
- Switch the toggle switch on the connection box from 12 V to 230 V.
- Plug a standard 230 V power supply unit into the connection box.
- Operate the sunshade with the hand-held transmitter.

# 4.10 Set up and attach the sunshade



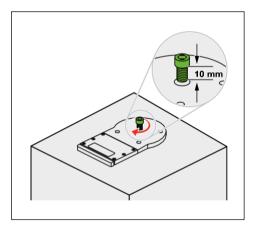
# **INFO**

- For safety reasons, set up the sunshade with at least 2 people.
- Prepare the mobile stand or base sleeve according to the manufacturer's instructions.
- The mobile stand must be designed with sufficient ballast.
- Provide a stepladder.
- Have the stainless steel screws and the Allen key included in the scope of delivery ready.
- If there is no telescopic arm, remove the protective case before setting up.
- Screw the top cap into the top of the pole.

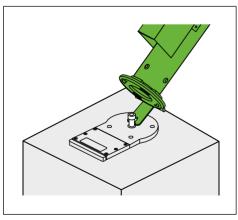


- 1 Pole
- 2 Slide shoe
- 3 Base plate for fixed assembly
- 4 Concrete foundation
- 5 Mobile stand

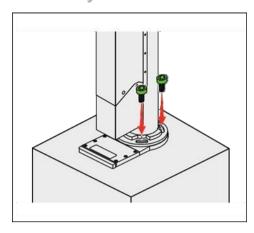
The following step-by-step instructions show an example of how to erect the pole on a solid surface:



1 Screw the screw (M10x30) into the centre hole of the base sleeve. Screw must protrude 10 mm.



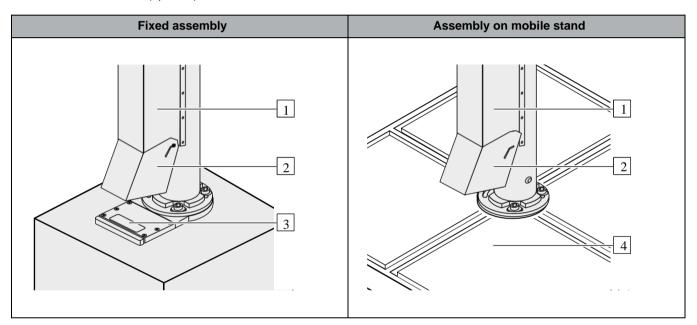
- 2 Lay the sunshade on the ground with the lower end of the pole pointing towards the base sleeve.
- 3 Lift the sunshade and thread the slide shoe into the centre screw.
- 4 Set up the sunshade vertically.



- Screw the sunshade to the base sleeve using screws (M10x35).
- 6 Align the sunshade and tighten the screws.

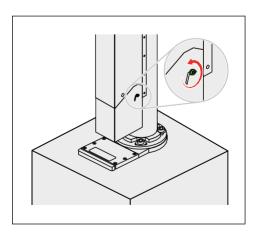
# 4.11 Connecting the sunshade (optional)

Models with electric drive (optional) must be connected.

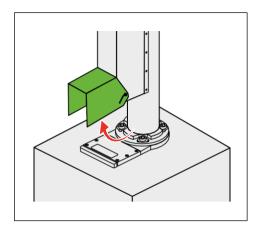


- 1 Connection box
- 2 Protective cover
- 3 Base tank
- 4 Mobile stand

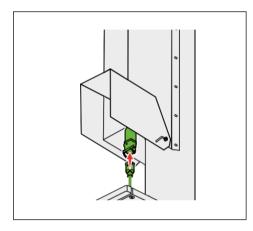
The following step-by-step instructions show an example of how to connect a sunshade to a solid surface:



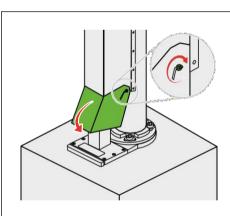
1 Unscrew the screw from the protective cover!



2 Swivel the protective cover upwards!



3 Insert the ILME plug into the connection box!



- 4 For fixed assembly, assemble the cover with cable passage.
- 5 Close the protective cover and secure with a screw!
- 6 Assemble and connect any existing radiant heaters in accordance with the enclosed operating instructions.

  The radiant heaters and any existing lights are also connected to the power supply via the ILME plug.
- 7 Attach any additional equipment such as rain gutters or side tarpaulins.

# 4.12 Assemble Multicube (optional)

## **Assemble the Multicube**



### **WARNING**

Crushing due to trapped limbs.

Falling gabions can cause serious injuries.

- Disconnect all poles of the existing power connection by pulling out the plug.
- Do not reach under or into open spaces while moving.
- Do not place any limbs under raised loads.
- Only move the Multicube professionally and with the lifting device provided for this purpose.
- Wear safety shoes.
- Always work with 2 people so that one person can secure the sunshade against tipping.
- Observe the weight limit for assembly with floor levelling feet of max. 550 kg total weight for upright, sunshade and additional weights.
- Do not assemble rollers due to the high weights.

The following table shows the recommended weights for mobile sunshade stands. The figures are for guidance only. For higher loads, e.g. in wind-exposed locations, Caravita recommends using base sleeves or multicubes. The specified weights can be reduced by using commercially available floor anchors with load transfer.

| Shape of the sunshade | Size in m                         | Recommende<br>d weight in kg | Possible with these sunshade stands         |
|-----------------------|-----------------------------------|------------------------------|---|
|                       | up to 3.5                         | 90                           | Dublin 8 with 4 paving slabs¹               |
|                       | up to 4                           | 170                          | Dublin 8 with 8 paving slabs¹               |
|                       | up to 4.5                         | 250                          | Dublin 16 with 12 paving slabs¹             |
|                       | up to 5                           | 290                          | Dublin 16 with 16 paving slabs¹             |
|                       | up to 5.5                         | 340                          | Dublin 16 with 16 paving slabs¹             |
|                       | up to 6 m                         | 400                          | Dublin 24 with 16 paving slabs¹             |
|                       | up to 6.5                         | 450                          | Dublin 24 with 16 paving slabs¹             |
|                       | up to 7                           | 500                          | Dublin 24 with 24 paving slabs¹             |
|                       | up to 3.5 x 3.5                   | 90                           | Dublin 8 with 4 paving slabs¹               |
|                       | up to 4 x 4 / 4 x<br>2 /<br>4 x 3 | 170                          | Dublin 8 with 8 paving slabs¹               |
|                       | up to 4.5 x 4.5 / 5 x 3           | 290                          | Dublin 16 with 16 paving slabs <sup>1</sup> |
|                       | up to 5 x 5 / 5 x<br>4 /<br>6 x 3 | 390                          | Dublin 24 with 16 paving slabs <sup>1</sup> |
|                       | up to 7 x 5                       | 470                          | Dublin 24 with 24 paving slabs¹             |

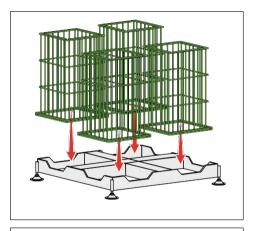
- 1 Standard concrete paving slabs 40 x 40 x 5 cm weighing approx. 18.4 kg
  - 1 Set up the plate stand as described.



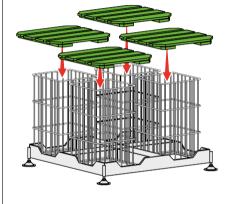
# NOTE

Due to the potentially high weight of the product, only floor levelling feet may be assembled.

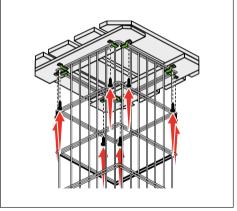
2 Set up the pole, see chapter 4.10 "Setting up and fastening the sunshade".



- 3 Insert the gabions into the openings provided.
- 4 Fill the gabions. Observe the weight recommendations in the table above.



5 Place the wooden supports in the centre.



5 Screw down the wooden supports from below using 8 clamps and 8 screws from the scope of delivery. If possible, use a cordless screwdriver.

# Use lifting device for pallet truck

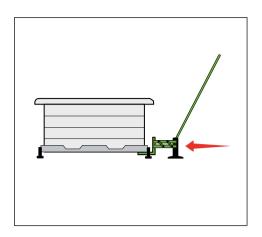


# **DANGER DUE TO CURRENT**

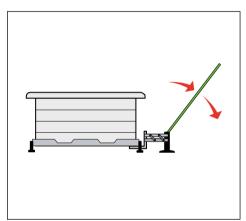
Electric shock due to damaged cables

When moving the plate stand with the power cable connected, these can be run over and damaged.

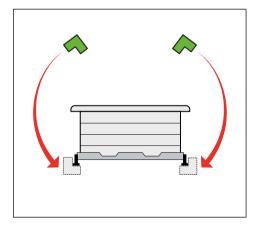
- Protect cables from damage and crushing using protective devices.
- Disconnect the plug from all poles before moving the stand.
- Disconnect unused extension cables from the power supply.
- Do not wind, bend or pull on cables when they are in use.
- Only fasten cables with suitable fastening material.



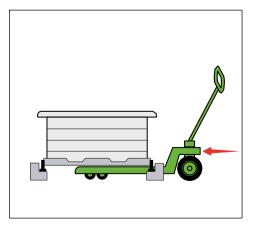
1 Slide the lifting device under the Multicube.



2 Lift the Multicube using the lifting device. To do this, press the lever down in the direction of the arrow.



3 Place metal supports underneath.



4 Move the Multicube with the pallet truck.

# 4.13 Assemble rain gutters and side tarpaulins (optional)

# Assembling rain gutters

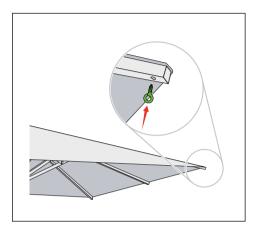
Optional rain gutters can be assembled on the sunshade to prevent uncontrolled dripping of rainwater.



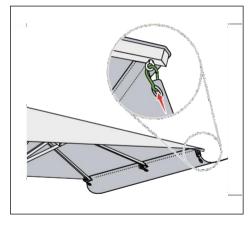
### NOTE

Although rain gutters can bridge the 25 cm gap between two sunshades, they do not provide complete water protection in this area. Splash water cannot be completely avoided.

Only the edges of two sunshades can be bridged with a rain gutter. The rain gutter cannot be used for several sunshades assembled in a row.



- Before assembly of the rain gutter, position the long fabric loop on the outside of the sunshade to determine the drainage direction.
- 2 Screw the screw-in hooks into the rivet threads at the ends of the struts.



3 Attach the rain gutter to the sunshade using the snap hooks. Make sure that the gutter is evenly attached at both ends and that it is evenly stretched over the longitudinal poles to effectively drain the water away from the sunshade.

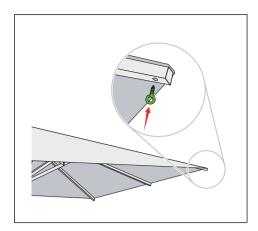
# Assemble side tarpaulins

Side tarpaulins can be optionally assembled on the sunshade to provide greater protection from the sun.

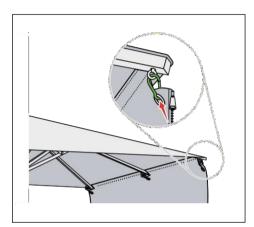


# **WARNING**

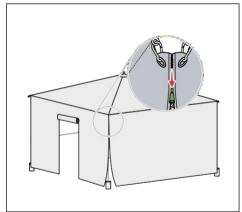
A sunshade with side tarpaulins is not a permanently usable building. The use of side tarpaulins can affect the stability of your sunshade in strong winds. Remove the side tarpaulins in stormy weather.



1 Screw the screw hooks into the rivet threads provided.



- 2 Attach the side tarpaulins to the sunshade using the snap hooks on the sunshade struts provided.
- 3 Press the Velcro tape over the side lengths.
- 4 Use the aluminium poles supplied and, if necessary, weights or ground anchors to secure the side tarpaulins at the bottom. Ensure that the side tarpaulins are taut and evenly stretched and do not swing in the wind to prevent chafing and damage.



5 Connect the individual side tarpaulins with the zip fasteners.

# 5 Putting into use



# **WARNING**

Risk of injury due to improper use of the sunshade. Improper use can

result in personal injury.

- Do not reach into openings on the product during commissioning.
- Do not hang any foreign objects on the sunshade that are not expressly mentioned in the instructions.
- Remove snow or other external contamination.
- Close the sunshade in case of high wind loads.
- Before opening the sunshade roof, ensure that there are no bystanders within the opening radius of the sunshade roof.
- Keep children away from the controls.



### CAUTION

Material damage due to improper use of the sunshade.

Improper use can damage the sunshade.

- Do not light an open fire under the sunshade.
- Remove snow or other external contamination.
- Close the sunshade in case of high wind loads.
- Do not hang on the sunshade or other components.
- Sunshade can tip over if you are not careful.
- Do not hang any foreign objects on the sunshade that are not expressly mentioned in the instructions.
- Remove obstacles from the travelling area.
- Do not force the sunshade open.



- 1 Remove the protective case.
- 2 Plug in the ILME connector, see chapter "Connecting the sunshade (optional)", page 26.
- 3 When operating via the solar element, first charge the solar element.
- 4 Open the sunshade, see chapter "Opening the sunshade roof", page 36.
- 5 If present, attach the battery-operated light in accordance with the enclosed operating instructions.
- 6 If available, test the lighting.
- 7 If available, fit additional equipment such as rain gutters or side tarpaulins, see chapter <u>"Fitting rain gutters and side tarpaulins (optional)</u> ", page 31.

# 6 Operation



# **CAUTION**

Risk of crushing due to carelessness when operating!

Persons in the travelling area may be injured.

- Keep travelling area clear of people!
- Keep children away from the controls!

# Operation via hand-held



# transmitter INFO

The operation of the hand-held transmitter can be found in the separate instructions for the hand-held transmitter.

# 6.1 Open the sunshade roof

The plastic nets attached to the struts serve as protection against transport damage. If the sunshade roof is open, these can be carefully removed with a knife or scissors.



# **WARNING**

Risk of injury to uninvolved persons

If people are within the opening radius of the sunshade canopy, they may be injured if they are not careful when opening the canopy.

- Before opening the sunshade roof, ensure that no bystanders are within the opening radius of the sunshade roof.
- Always maintain visual contact with the sunshade as long as it is open.
- Only open the sunshade when there is no wind or the wind is only blowing lightly.
- The sunshade must not be opened by a higher-level controller.



# **WARNING**

Risk of injury to uninvolved persons from flying cranks

If the sunshade is opened or closed using the remote control while the crank is inserted, it can be ejected.

When using the remote control, ensure that the crank handle is NOT plugged in.



# **INFO**

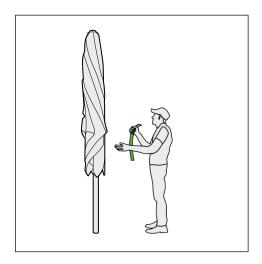
When removing the plastic nets with scissors or a knife, do not damage the fabric of the sunshade roof.



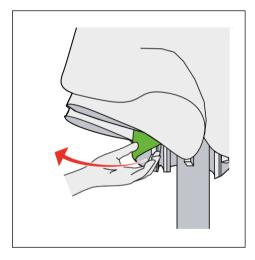
# NOTE

Material damage due to incorrect pulling apart of the struts

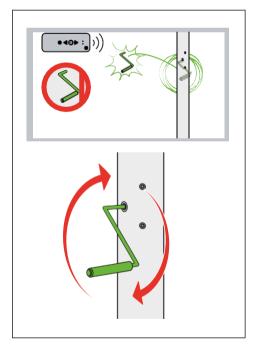
- If the sunshade does not open or close easily, rectify the problem via chapter 10 " Troubleshooting" or call our service hotline.
- The sunshade is securely fastened in the base sleeve or mobile stand.



1 Remove the strap from the sunshade roof.



- 2 Pull the struts slightly outwards.
  - ▶ The struts are loosened.



Insert the crank into the device on the pole. OR If available, use the remote control to start the electric motor.



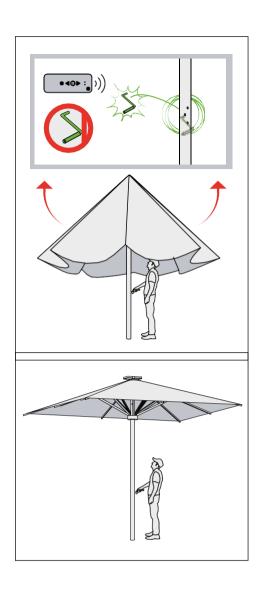
# **WARNING**

Risk of injury to uninvolved persons from flying cranks

If the sunshade is opened or closed using the remote control while the crank is inserted, it can be ejected.

When using the remote control, ensure that the crank handle is NOT plugged in.

# **Operation**



4 Turn the crank anti-clockwise to open the sunshade roof. Wait until the fabric is taut.

OR

Use the remote control to open the sunshade roof. Wait until the fabric is taut.



### INFO

If the crank is turned beyond the stop, the gearbox may be damaged.

5 Remove the crank from the pole and store it in a safe place.

# 6.2 Close sunshade roof



# **WARNING**

Risk of injury to uninvolved persons from flying cranks

If the sunshade is opened or closed using the remote control while the crank is inserted, it can be ejected.

When using the remote control, ensure that the crank handle is NOT plugged in.

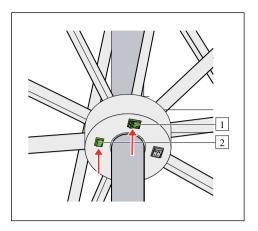


# NOTE

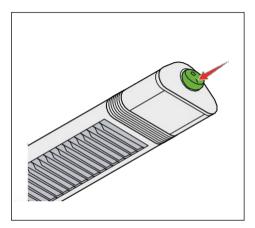
Material damage due to abrasion of the sunshade fabric

Permanent flapping in the wind can damage the sunshade fabric by rubbing against the struts. No claims for damages can be asserted for this.

- Always secure the closed sunshade roof with the strap.
  - 1 Remove all attachments such as rain gutters or side tarpaulins and stow away in a dry place.



- 2 Switch off the light on the wreath (2). There can be 1 or 2 single toggle switches.
- 3 If a radiant heater is present, switch off the radiant heater on the cornice (1). There can be 1 or 2 double toggle switches.



4 If a radiant heater is present, always switch off the radiant heater at the housing itself and allow it to cool down for 3 minutes.



#### **WARNING**

Risk of burns on hot surfaces!

There is a risk of burns on surfaces during operation and after switching off.

Do not touch the radiant heater until it has cooled down.

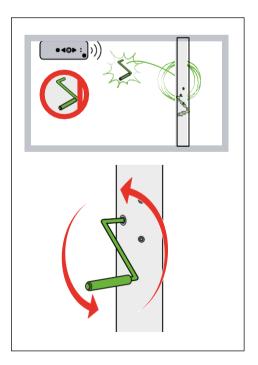


#### **CAUTION**

Fire hazard due to hot surfaces.

The fabric can catch fire if it comes into contact with the hot surfaces of the radiant heaters.

- Stop retracting the sunshade immediately and extend it again.
- Check and switch off the radiant heater.
- Retract the sunshade again.
- Pull the plug out of the radiant heater in an emergency.
- Check the emergency shutdown at least once a year, see <a href="Maintenance and care"">"Maintenance and care"</a>, page 45.



Insert the crank into the device on the pole. OR If available, use the remote control to start the electric motor.



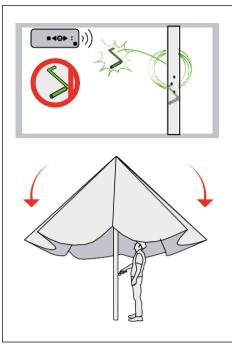
#### **WARNING**

Risk of injury to uninvolved persons from flying cranks

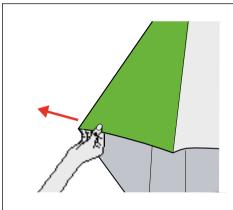
If the sunshade is opened or closed using the remote control while the crank is inserted, it can be ejected.

When using the remote control, ensure that the crank handle is NOT plugged in.

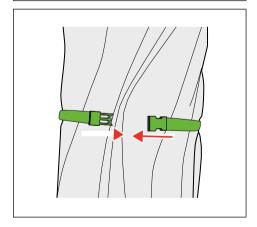
# Operation



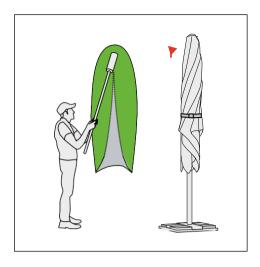
6 Turn the crank anti-clockwise. OR Use the remote control until the sunshade is almost closed.



Pull the fabric out from between the struts and lay the fabric loops to one side to prevent the fabric from being pinched or damaged.



8 Secure the closed sunshade roof with the strap.



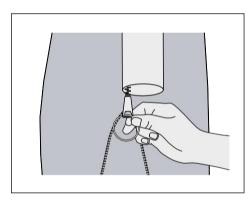
9 Attach the protective case, see chapter <u>"Using the telescopic push</u> rod <u>(optional)", page 34.</u>



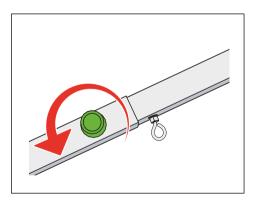
### **INFO**

The fabric must be dry before applying the protective case.

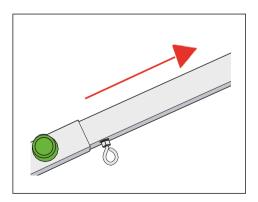
## 6.3 Using the telescopic push rod (optional)



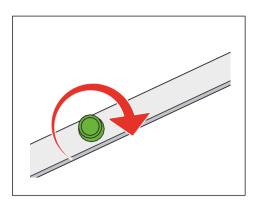
1 Attach the key ring to the zip of the protective case.



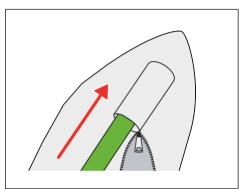
2 Open the knurled screw on the telescopic push rod.



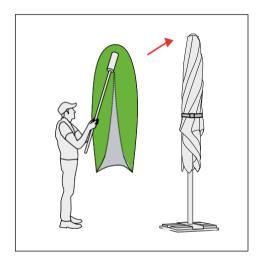
3 Pull the telescopic push rod to the required length



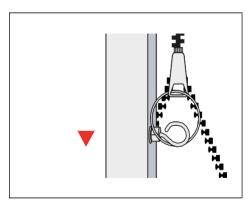
4 Tighten the knurled screw on the telescopic push rod.



5 Open the zip and insert the rod into the tab provided



6 Remove the protective case with the telescopic push rod.



7 Attach the eyebolt of the telescopic push rod to the key ring on the zip of the protective case

## **Disassembly**

## 7 Disassembly

During the season, the pole can remain installed outdoors without hesitation. At the end of the season or when required, the pole is dismantled and stored. Disassembly is carried out in the reverse order to assembly.

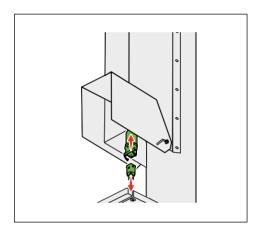


#### CAUTION

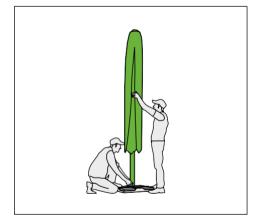
Risk of injury due to tipping

Carelessness can cause the sunshade to tip over with its heavy weight.

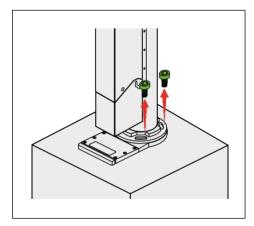
- Two people are always required for disassembly.
- The base must be designed with sufficient ballast to prevent the closed sunshade from tipping over in strong winds.



- 1 Disconnect the plug connector.
- 2 Dismantle and pack all add-on parts (optional) such as radiant heater, rain gutter, side tarpaulin, etc.
- 3 Close the sunshade properly, see chapter <u>"Closing the sunshade roof"</u>, page 38.
- 4 Remove the cover cap and, if necessary, the ball or solar element and store properly.
  To do this, proceed in reverse order, see chapter <u>"Assembling the solar element (optional)"</u>, page 23.
- 5 Use the protective case as described, see chapter <u>"Using the telescopic push rod (optional)"</u>, page 34.

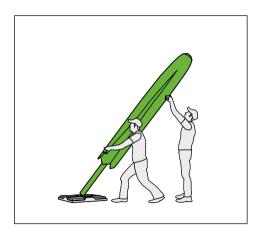


6 At least one person secures the sunshade by holding on to it.

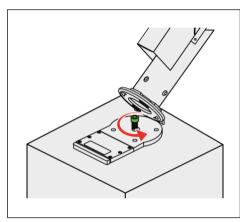


7 Loosen the fixing screws and washers on the base and store in a container.

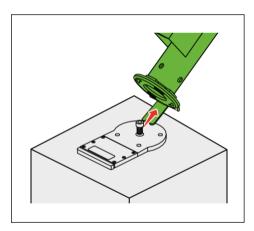
Remove the base sleeve cover if necessary.



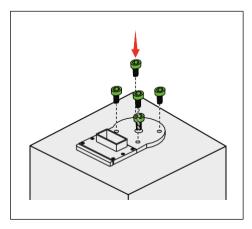
8 Tilt the sunshade with at least 2 people.



9 Loosen the screw in the centre of the base sleeve.

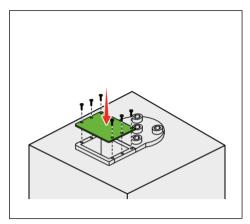


- 10 Pull the fork out of the screw.
- 11 Store the pole in a safe, protected place.
- 12 Remove professionally if necessary.



13 If the sunshade is not used for a longer period of time, screw the 4 screws and the screw in the centre of the base sleeve back in to avoid dirt deposits in the holes.

# **Disassembly**



14 If the sunshade is not used for a longer period of time, close the floor connection tank with the cover (without cable passage) to prevent dirt deposits.

### 8 Maintenance and care

#### Radiant heater



#### NOTE

To clean the radiant heater, follow the instructions for the radiant heater.

#### **Emergency switch-off**

If the sunshade is equipped with optional radiant heaters, an emergency switch-off is always integrated.

#### Check emergency switch-off

- Check the function of the emergency switch-off:
  - Switch on the assembled radiant heaters.
  - Press the two switches integrated in the struts of the sunshade simultaneously to simulate the closing of the sunshade.
- Check whether the radiant heaters switch off.
  If the radiant heaters do not switch off, contact the service.

#### Sunshade fabric



#### NOTE

Material damage to the sunshade fabric due to incorrect cleaning and cleaning agents

The acrylic fabric of the sunshade roof is impregnated and requires special cleaning and cleaning agents.

- Always wash the sunshade fabric in cold water.
- Do not use a high-pressure cleaner to clean the sunshade fabric.
- Avoid strong friction during cleaning, e.g. with hard brushes or sponges.

#### Cleaning the sunshade fabric

- If possible, remove fallen leaves (foliage) immediately (starting point for microbial infestation).
- Dry-brush out the dirt at regular intervals.
- Treat light stains with lukewarm water and a soft brush.
- Treat stubborn stains by hand washing with a little commercial mild detergent, rinse well with clear water, leave to dry and treat with impregnating agent.

### Pole

Cleaning and maintaining the pole

- Wash the surfaces with a gentle cleaning agent.
- Refresh the stainless steel parts with commercially available stainless steel polish.
- For corrosion protection, treat the joints and rollers with spray oil or silicone spray at regular intervals.

### **Anchoring**

Check screws and foundation

- Check all screws at least once a year as well as the general strength; retighten screws if necessary.
- Check the foundation or floor stand and search for cracks

### Rain gutters

Cleaning and maintaining rain gutters

- Keep the rain gutters free of dirt.
- If necessary, clean the gutter after soiling.
- Keep free of objects.

### **Check additional equipment**

Check and maintain additional equipment

- Check the screw connection of the roller sets.
- Replace the hand-held transmitter batteries.
- When using Multicube, reglaze worn wooden surfaces once a year with commercially available teak oil or oil suitable for outdoor furniture.

## **Storage**

### 9 Storage



#### NOTE

Material damage due to abrasion of the sunshade fabric

Permanent flapping in the wind can damage the sunshade fabric by rubbing against the struts. No claims for damages can be asserted for this.

Always secure the closed sunshade roof with the strap.



#### NOTE

Material damage due to mould

If the protective case is pulled over the damp fabric, mould will form.

Only cover the protective case when the fabric is completely dry.

The sunshade can be stored outdoors and in a protected, dry room. For both options:

- Secure the sunshade roof with straps.
- Allow the fabric as well as any side tarpaulins and rain gutters to dry completely before storing.
- Put the protective case on.
- Store the side tarpaulins in a suitable container, e.g. in commercially available and sealable KG tubes.

### **Outdoor storage**



#### **CAUTION**

Risk of injury due to tipping

Carelessness and strong winds can cause the sunshade to tip over with its heavy weight.

If a mobile stand is used, it must be designed with sufficient ballast to prevent the closed sunshade from tipping over.

### Storage in a dry room

The following applies to storage in a dry room:

- Dismantle the sunshade in reverse order for storage
- Pack the sunshade in the box in which it was delivered.
- Store the sunshade horizontally in a dry room.

## 10 Troubleshooting

If the sunshade malfunctions and cannot be rectified with the help of the following instructions, please contact us via our service hotline. You will find the contact details on the first and last page of these instructions.



#### WARNING

If the radiant heater malfunctions, follow the instructions for the radiant heater.

The following malfunctions can occur when using the sunshade:

| Problem   | Cause   | Rectification  |
|---|---|--|
| 230 V motor stops when travelling and has to be restarted again and again/switches off again and again. | Motor has lost end position and is searching for upper and lower end point with low torque.   | Reset limit switch with standard setting cable, e.g. using button  Then move the motor to the upper and lower end positions. The motor switches off to torque.                         |
| The crank cannot be turned, blocked   | Gearbox defective   | Gearbox replacement  |
| Motor does not start (230 V).   | <ul> <li>Hand-held transmitter battery is too weak</li> <li>Plug connection not completely plugged in.</li> <li>Locking device has triggered</li> </ul> | <ul> <li>Change the remote control battery.</li> <li>Check plug connectors.</li> <li>Wait 20 min.</li> <li>Checking the locking device.</li> </ul>                                     |
| The sunshade roof can no longer be opened or closed. Motor does not start (230 V).                      | Motor thermal protection active.  | Allow the motor to cool down for 20 minutes and drive again  |
| Solar drive hand-held transmitter does not work   | Address lost  | Set 230 V to 0 and disconnect the power supply from the solar element to the motor at the base of the pole. Then reconnect the motor. Handheld transmitter can now be programmed again |
| LED lighting cannot be switched on.   | Circuit breaker of the LED lighting has tripped.  | Before switching on the LED lighting, open the sunshade completely.  |
| Sunshade makes creaking noises  | Screws on the base of the sunshade have come loose  | Tighten the fastening screws on the base  Visual inspection of the screws on the sunshade  |
| Crank turns without resistance  | Power transmission in the drive train interrupted   | Check the drive train. Replace the connecting screws.  |
| Heaters do not work   | Safety switch triggered Supply line de-energised Switch on housing still "off"  | Sunshade not fully open Safety device<br>triggered<br>Housing switch to "on"   |
| Fabric tension on individual struts too low   | Fabric has elongated  | Loosen the screw at the strut tip, pull out the profile and reattach.  |



#### NOTE

If a fault is not included in the list or if you are unsure, contact a specialist dealer

# **Warranty conditions**

## 11 Warranty conditions

The following warranty conditions apply:



www.caravita.de/garantie

### 12 Notes

Follow the general instructions:



www.caravita.de/hinweise



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