

# BIOCLIMATIC PERGOLA 111

INSTRUCTION MANUAL



# THANK YOU FOR PURCHASING OUR MIRADOR BIOCLIMATIC PERGOLA!

#### THIS INSTRUCTION MANUAL IS FOR THE FOLLOWING MODELS:

	Single aluminum	Single Steel	Double aluminum
Series \ Louver			
111	111 Premium	111 Classic	111 Deluxe
111	111 A	111 S	111 DA

This manual will provide you with clear and detailed instructions on how to safely and correctly assemble and maintain your pergola, to ensure it brings you many years of use and enjoyment.

#### **IMPORTANT**

Warning: Important safety instructions. It is important for the safety of persons to follow these instructions. Please keep these instructions in a safe place.

This product can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the product in a safe way and understand the hazards involved. Children shall not play with the product. Cleaning and user maintenance shall not be made by children without supervision.

#### Intended use

This pergola is intended for outdoor domestic use in residential environments, and to protect users from direct sunlight, glare and heat. Any use or modification to the pergola not included in this manual shall be considered as improper use, which may cause considerable danger to users and property and will void the product warranty.

For parts and customer service, please call +1 (877)-506-4777 in the U.S. and Canada (English and Spanish)Monday – Friday, 6:30 am to 4:30 pm, Pacific Time. Or email: support@miradoroutdoor.com

Digital instruction manual is also available on our official website www.miradoroutdoor.com for your reference.

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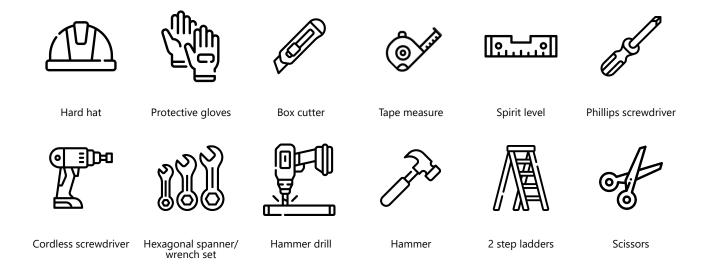
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# BEFORE ASSEMBLING YOUR PERGOLA

WARNING: Improtant safety instructions. Follow all instructions, since incorrect installation can lead to severe injury.

#### Make sure you have all the tools required for assembling your pergola:

In order to assemble your pergola safely and correctly, please ensure you have access to the following tools and accessories, all of which are not provided.



#### Check to ensure there are no missing parts:

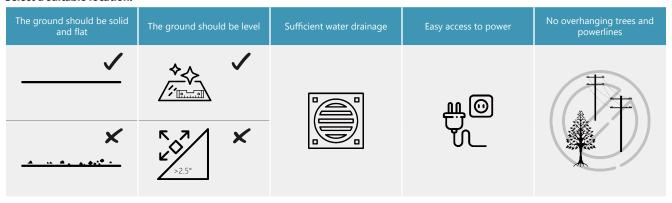
Before you begin installation, please check that you have all the parts required to assemble your pergola. Please also carefully check that the quantity of parts match with that of the model you have purchased.

If any parts are missing, please refer **Warranty & Complaints Procedure** to contact customer service before beginning the installation.

#### Prepare the parts you will need for each step:

In the **Installation** section of the manual, each step indicates the necessary parts and quantities required to complete the step. We recommend that you prepare the parts you will need for each installation step. Doing this will save you time and effort during assembly. If possible, place the parts on cardboard or other soft surface to protect from scratching the painted surfaces.

#### Select a suitable location:



#### Warning:

Most terraces or patios are designed with a slight slope to prevent (rain) water from forming pools or reaching the house or other structures. For the perfect pergola installation, a level concrete surface without such a slope is required. Small pebbles could also prevent the pergola from being safely secured on the ground.

If the pergola is installed on an uneven surface, it may prevent accessory components from working correctly and may void the product warranty.

#### Prepare a foundation:

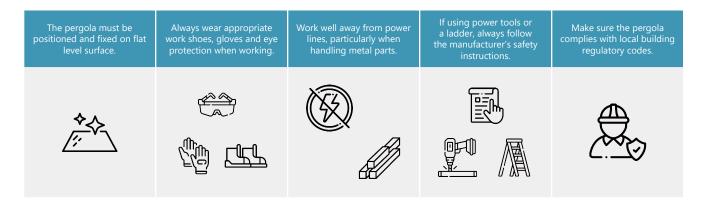
To prepare it, you need to:

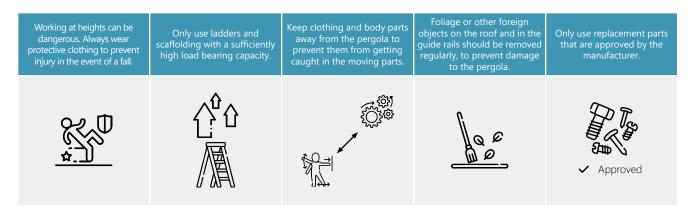
- check for underground pipes and cables (Call 811 before you dig if you live in the USA)
- check with your local authorities regarding any building permits that may be required
- contact a reliable contractor to have concrete base if you dont have one

Do not assemble the pergola on sandy, muddy or loose soil, as the stakes do not have the suffcient anchorage to be installed in these types of soil.

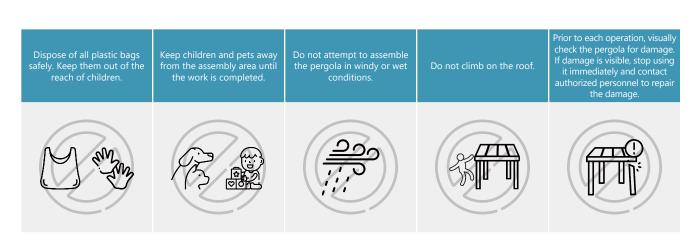
# IMPORTANT SAFETY ADVICE

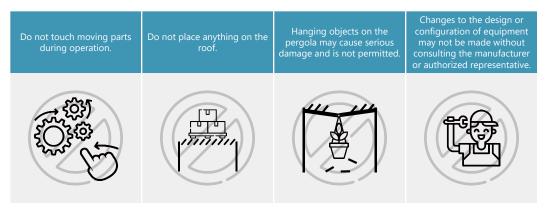
For the safety of all persons installing and using the pergola, it is important to follow the safety guidelines below.





Put the louvers into the vertical position during snowfall or wind to avoid damage.	Installation of non-Mirador branded accessories will void the product warranty and can damage the operating mechanism.	After prolonged use we recommend you check all the fittings are tightened securely.	Please recycle packaging where possible.	Do not attempt to assemble the product if you are tired, or after consuming alcohol.
* ° : ¬ • · · · · · • · · · · ·   "	Mirador®		(A)	



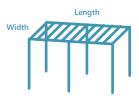


# **LIST OF PARTS**

Please carefully check that the quantity of parts matches with that of the model you have purchased.

PLEASE NOTE that the anchor bolts provided may not be suitable for your chosen installation location. Please check before proceeding.

DO NOT USE AN IMPACT CORDLESS SCREW DRIVER TO ASSEMBLE THE PERGOLA. USE A STANDARD CORDLESS SCREW DRIVER ON THE BASE SETTING. ALL HOLES HAVE BEEN PREDRILLED OR FITTED FOR ASSEMBLY.



			Length			
	REF	Part Name	5.3m/17ft.	6m/20ft.	7.2m/24ft.	
Α	4	Corner Pillar	4 pcs	4 pcs	4 pcs	
<b>A1</b>		Middle Pillar	2 pcs	2 pcs	2 pcs	
В		Side beam with gearbox 1	1 pcs	1 pcs	1 pcs	
<b>B1</b>	En X	Side beam with gearbox 2	1 pcs	1 pcs	1 pcs	
B2		Side beam without gearbox 1	1 pcs	1 pcs	1 pcs	
В3		Side beam without gearbox 2	1 pcs	1 pcs	1 pcs	
С		End beam	2 pcs	2 pcs	2 pcs	
Н		Crank	2 pcs	2 pcs	2 pcs	

	REF	Part Name	5.3m/17ft.	6m/20ft.	7.2m/24ft.
1		Foot plate cover	6 pcs	6 pcs	6 pcs
J	• · · · · · · · · · · · · · · · · · · ·	Foot plate	6 pcs	6 pcs	6 pcs
M	0	Shaft support cover	68+3 pcs	76+3 pcs	92+3 pcs
N		Corner pillar cover	4 pcs	4 pcs	4 pcs
N1	6 9	Middle pillar cover	2 pcs	2 pcs	2 pcs
0	TA MINIMININI	Screw ST5.65x45mm	36+3 pcs	36+3 pcs	36+3 pcs
P		Screw M5x12mm	136+7 pcs	152+8 pcs	184+9 pcs
Q		Screw 4.2x25mm	136+7 pcs	152+8 pcs	184+9 pcs
R	(E) DDD000-	Screw 5.5x19mm	16+3 pcs	16+3 pcs	16+3 pcs
T1		Spacer sleeve	4 pcs	4 pcs	4 pcs
U1		Socket screw M8x45mm	4 pcs	4 pcs	4 pcs
V	<b>© T</b>	Crank coupler	2 pcs	2 pcs	2 pcs
W		Anchor bolt M8x80mm	24 pcs	24 pcs	24 pcs

	REF	Part Name	5.3m/17ft.	6m/20ft.	7.2m/24ft.
X		Hex key (small)	1 pcs	1 pcs	1 pcs
Υ	100	Hex key (large)	2 pcs	2 pcs	2 pcs
Z		12mm SDS Plus Drill Bit	1 pcs	1 pcs	1 pcs
<b>Z10</b>		Spare plastic pin	0+10 pcs	0+10 pcs	0+10 pcs

# LOUVER REALATED VARIATIONS

### The type of louver provided depends on the model of pergola you have purchased:

Model	Louver type
111 Premium / 111 A	Single aluminum
111 Classic / 111 S	Single steel
111 Deluxe / 111 DA	Double aluminum

### **Double aluminum**

REF	Part Name	5.3m/17ft.	6m/20ft.	7.2m/24ft.
D =	Louver	34 pcs	38 pcs	46 pcs
K	Louver end cap	66+3 pcs	74+3 pcs	90+3 pcs
L	Louver end cap with control arm	2 pcs	2 pcs	2 pcs
<b>G</b>	Connecting strip	2 pcs	2 pcs	2 pcs
S	Cotter pin	34+5 pcs	38+6 pcs	46+7 pcs

### Single aluminum

	REF	Part Name	5.3m/17ft.	6m/20ft.	7.2m/24ft.
D		Louver	34 pcs	38 pcs	46 pcs
K	;	Louver end cap	66+3 pcs	74+3 pcs	90+3 pcs
L		Louver end cap with control arm	2 pcs	2 pcs	2 pcs
G		Connecting strip	4 pcs	4 pcs	4 pcs
S		Cotter pin	68+10 pcs	76+11 pcs	92+14 pcs

## Single Steel

REF	Part Name	5.3m/17ft.	6m/20ft.	7.2m/24ft.
D	Louver	34 pcs	38 pcs	46 pcs
K	Louver end cap	66+3 pcs	74+3 pcs	90+3 pcs
L	Louver end cap with control arm	2 pcs	2 pcs	2 pcs
G	Connecting strip	4 pcs	4 pcs	4 pcs
S	Cotter pin	68+10 pcs	76+11 pcs	92+14 pcs

# **INSTALLATION**

# 1. Set up the pillars A & A1



Installation Video

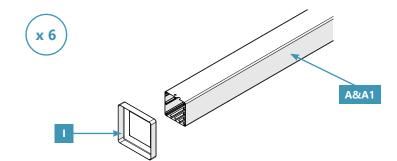


Slide the foot plate cover with its wide opening facing outwards on the straight end of the pillar A & A1.





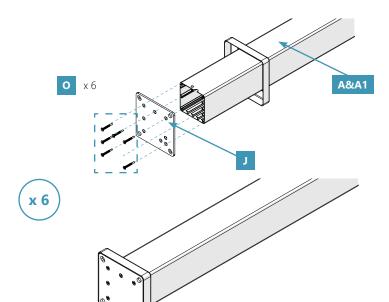




**1B** 

Push the foot plate J against the straight end of the pillar A & A1. It only fits in one direction and in one position. If in doubt, rotate it until it fits easily.

Screw in the foot plate with 6 screws using a cordless screwdriver.





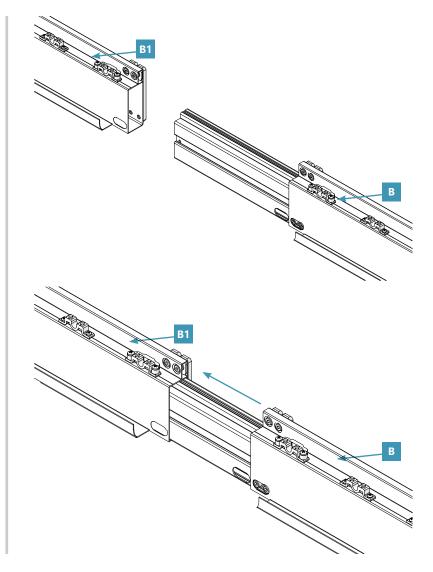


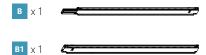


# 2. Connect the side beams **B** & **B1** to the corner pillars **A**



Slide the end of side beam B into the end of side beam B1, until the end piece is no longer visible.







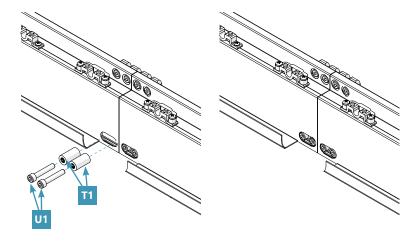
Connect the two side beams by inserting the spacer sleeves 11 and socket screws









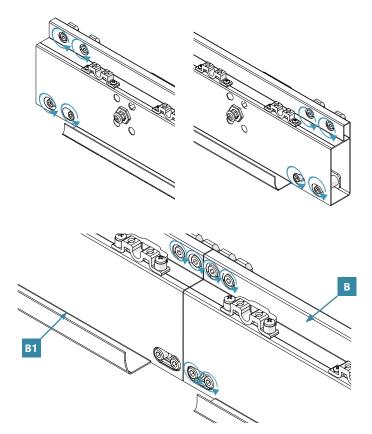




Using a hex key (large) , slightly loosen the 8 built-in screws at the corner ends of the side beams (4 on each side).

Then loosen the top 6 built-in screws where the side beams meet in the middle.

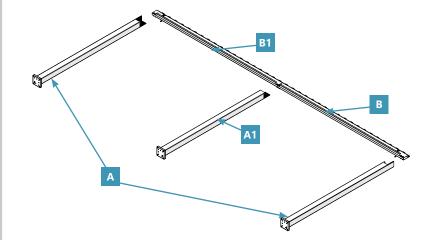
Do not touch the bottom 2 screws of B1





Align the newly connected side beams with the corresponding pillars

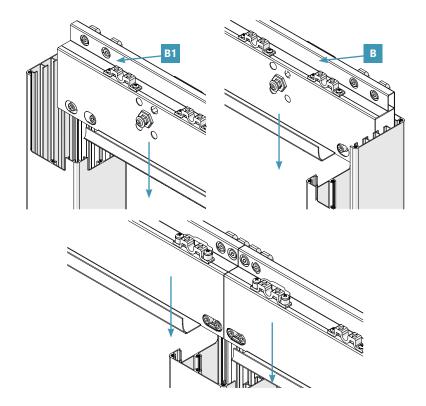
A and A1.

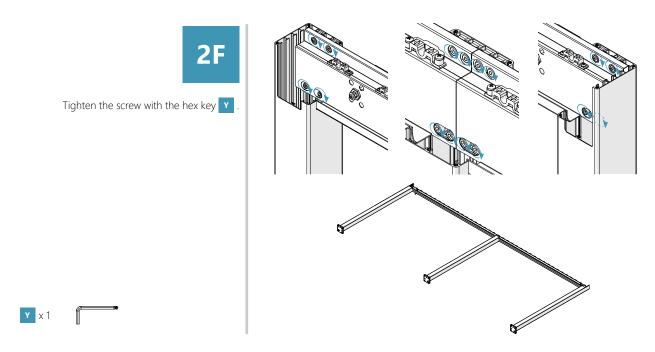




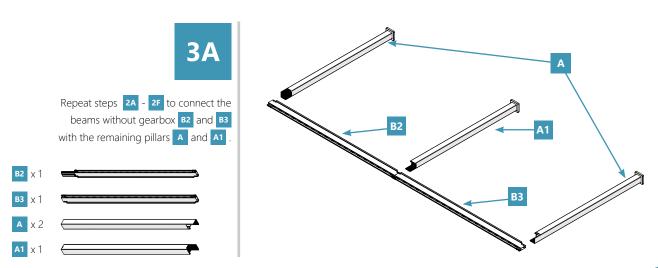
2E

Slide the side beams into the grooves of the pillars A and A1 in such a way that the slot nuts of the side beams B and B1 interlock with the slots in the pillars.





# 3. Connect the side beams without gearbox B2 & B3 to the remaining pillars A & A1



# 4. Slide in the two end beams

This phase requires six persons and at least two stepladders.

Make sure that the stepladders are standing securely to avoid falling.



Only use ladders suitable for this kind of installation work.

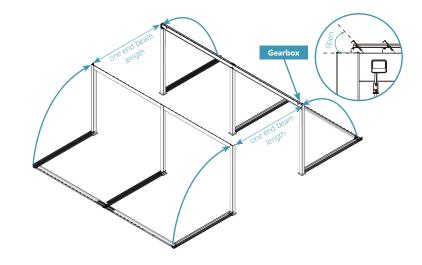


Stand the two structures built during steps 2 and 3 in an upright position, and place them at one end beam length away from one another. Make sure that one person is supporting each leg

A and A1 to prevent the structures from falling.

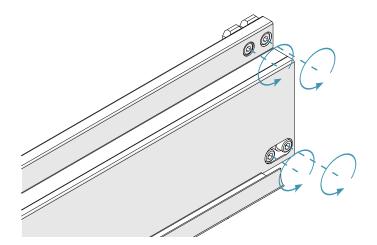
### Reminder:

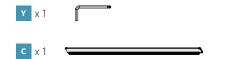
When determining the installation direction of the product, please consider the opening direction of the louvers as well as the desired sunshade effect.

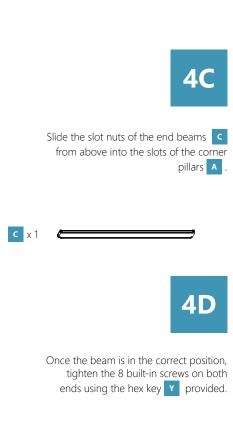


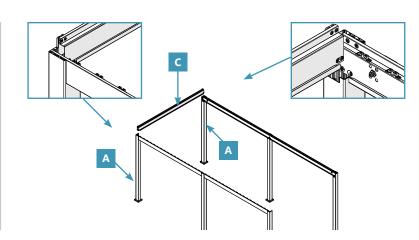


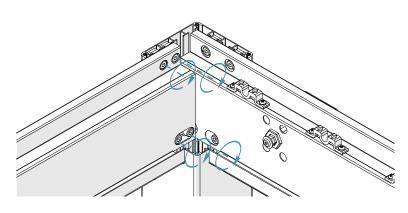
Slightly loosen the 8 built-in screws at both ends of the end beam c.

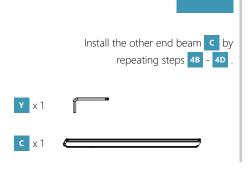




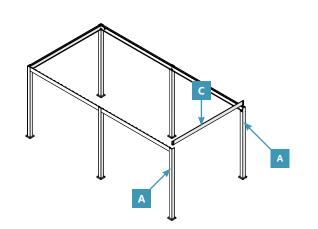








**4E** 



# 5. Check the alignment of the frame and the distance between the corner pillars

You are now almost done installing the main frame of the pergola. Please double check to ensure all beams and pillars have been installed and fitted correctly. You may have to unscrew certain bolts during this step.

You will also need a tape measure and a spirit level to complete this step.

5A

Choose one of the corner pillars A and work from this pillar. Choose this pillar carefully as it will define the final installation location of the pergola.

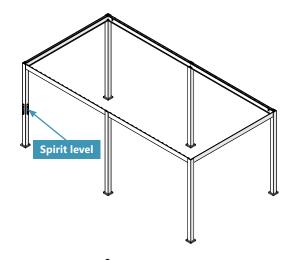
Use a spirit level to measure against both of the inner sides to ensure that the corner pillar is straight and level.

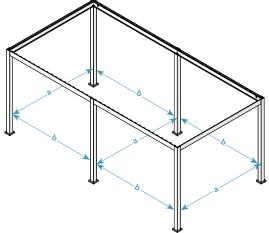
Make sure this corner pillar does not move position during the remaining installation steps.



Measure the distances between the adjacent corner pillars. Adjust accordingly and ensure the distances match those shown in the opposite figure.

	Size			Ŀ	)
	(m/ft)	(mm)	(inch)	(mm)	(inch)
	3x5.3/10x17	2790.5	109.9	2485.7	97.9
	3x6/10x20	2790.5	109.9	2790.5	109.9
	3x7.2/10x24	2790.5	109.9	3400	133.9
,	3.6x5.3/12x17	3400	133.9	2485.7	97.9
	3.6x6/12x20	3400	133.9	2790.5	109.9
	3 6x7 2/12x24	3400	133.9	3400	133.9

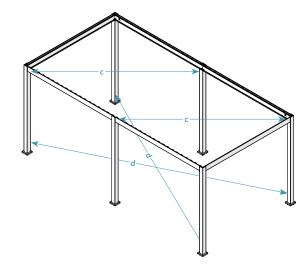


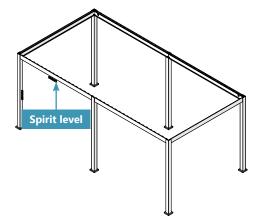


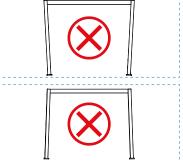
5C

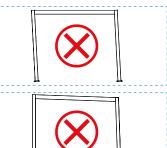
Measure the diagonal distance between the opposite corner pillars. Adjust the other corner pillars accordingly until both diagonal distances are equal. You may have to repeat the above steps after completing the remaining steps.

Size			c	1
(m/ft)	(mm)	(inch)	(mm)	(inch)
3x5.3/10x17	3739	147.2	5802.5	228.4
3x6/10x20	3951	155.6	6343	249.7
3x7.2/10x24	4403	173.3	7457	293.6
3.6x5.3/12x17	4217	166.0	6120	240.9
3.6x6/12x20	4403	173.3	6635	261.2
3.6x7.2/12x24	4813	189.5	7706	303.4













Check that all corner pillars are straight and level using a spirit level. If the corner pillars or beams are still not level, this means that your main building surface isn't sufficiently level, and that you will need to raise the corner pillars that are positioned lower than the others. (Contact qualified workers if needed.)

### Warning:

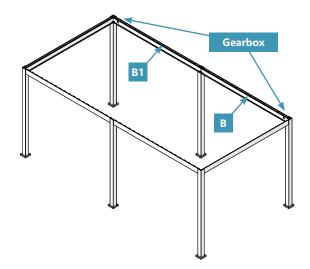
If you do not adjust the main structure at this point, you may encounter problems when fitting the roof deck and/ or accessories to the frame.



# 6. Install Cranks H

**6A** 

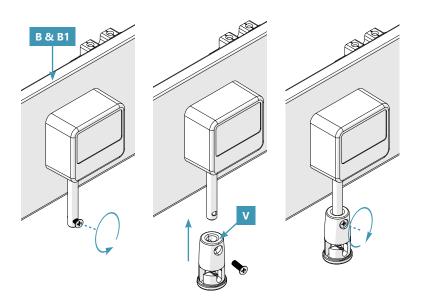
Locate the gearboxes on the side beam with gearbox B and B1.



6B

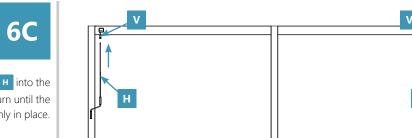
Unscrew and remove the small screw from the crank connectors.

Insert the crank couplers v into the crank connectors and re-insert and tighten the small screw.

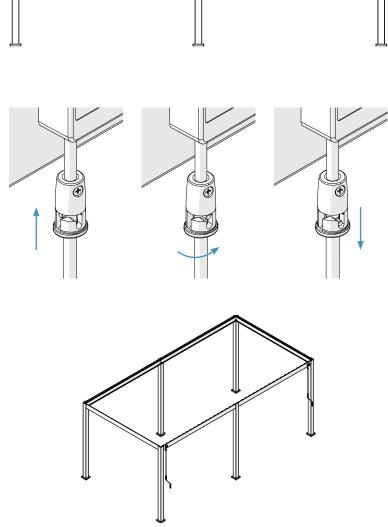








Insert the end of the cranks H into the crank couplers V , and turn until the crank locks firmly in place.



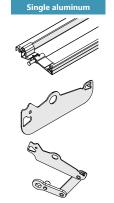
# 7. Install the louvers, and connecting strips

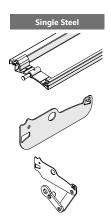








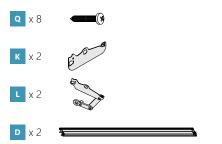


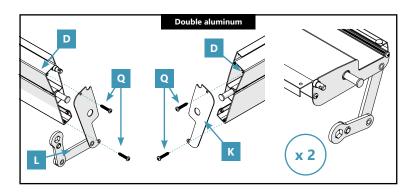


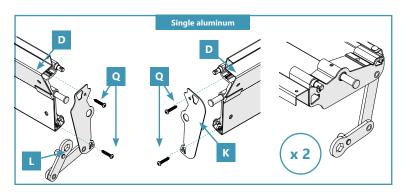
**7A** 

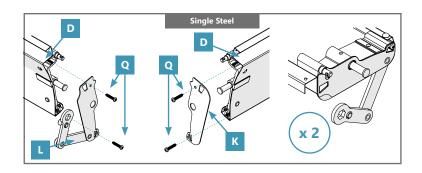
Prepare two driving louvers: select two louvers **D** to be the driving louver.

Attach the louver end cap with control arm to one end of the driving louver, and attach an louver end cap to the other end of the driving louver. Use two screws on each side, and fix them firmly using a cordless screwdriver.



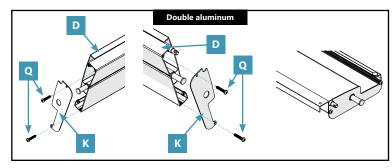


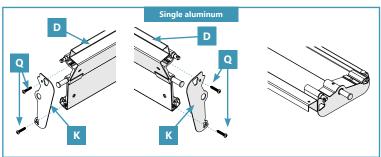


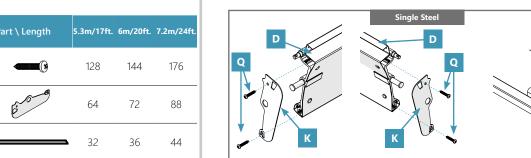


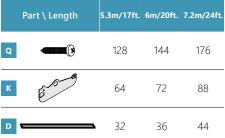
**7B** 

Prepare the regular louvers: attach the louver end caps K to each end of the rest of the louvers D with two screws q using a cordless screwdriver. Repeat this step for all louvers.





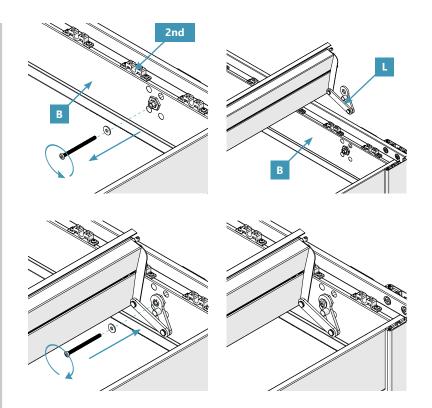


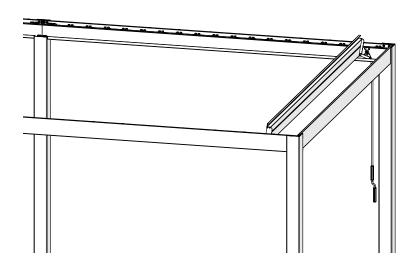


**7C** 

Loosen the screw and washer already attached to the beam. Then fix the connecting rod L of the driving louver to the side beam with gearbox B, by firmly tightening the same screw and washer, using the hexagon socket key X.

Place the louvers on the corresponding louver shaft support on both side beams ( B & B3 ), with each louver overlapping the next, and make sure that the driving louver is placed 2nd from the right.



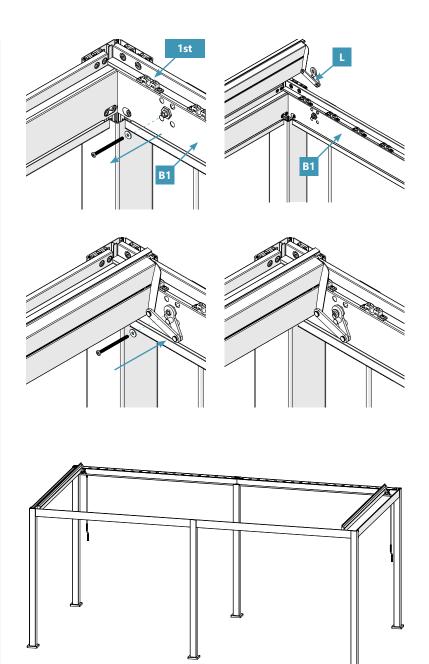






Loosen the screw and washer already attached to the beam. Then fix the connecting rod L of the driving louver to the side beam with gearbox B1, by firmly tightening the same screw and washer, using the hexagon socket key X.

Place the louvers D on the corresponding louver shaft support on both side beams (B1 & B2), with each louver overlapping the next, and make sure that the driving louver is placed 1st from the left.

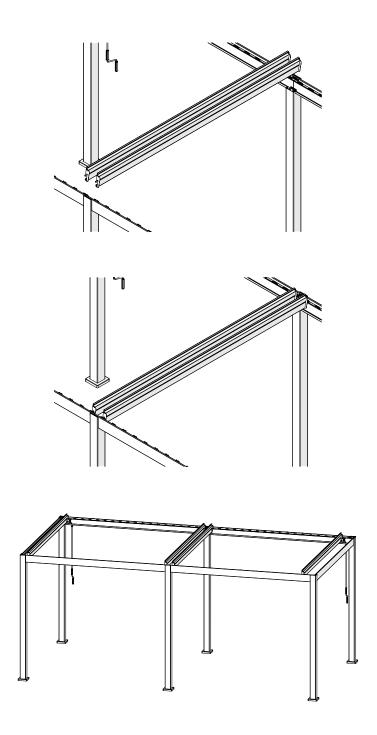








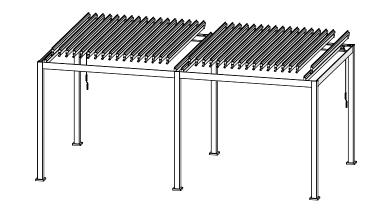
Place two louvers on the shaft support brackets of the middle pillars A1, and attach the connecting rods as in step 7c.

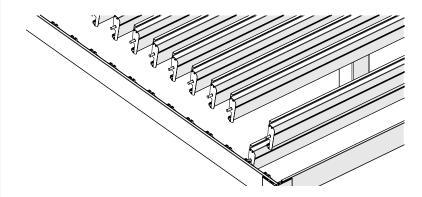


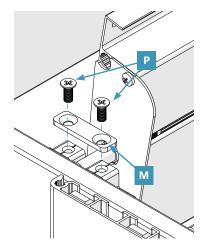
**7E** 

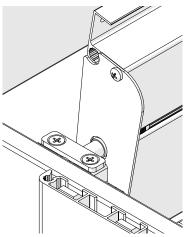
Place the rest of the louvers into the remaining shaft support brackets.

Secure the louvers D in the shaft support brackets by fixing a shaft support cover M onto the shaft support brackets on both ends of each louver D. Use two screws P each and secure them with a cordless screwdriver. Repeat this step for all louvers.











Pa	art \ Length	5.3m/17ft.	6m/20ft.	7.2m/24ft.
М	@ @	68	76	92
P		136	152	184

**7F** 

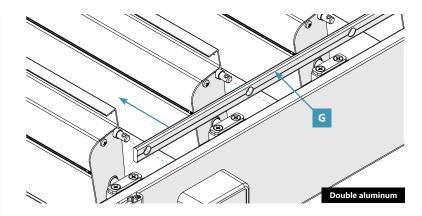
Take the connecting strip G. Attach it to each louver fitting each of the holes onto the corresponding bolts of the louvers.

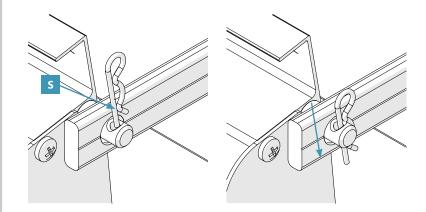
Secure every bolt with a cotter pin S, inserting it through the small bolt hole.

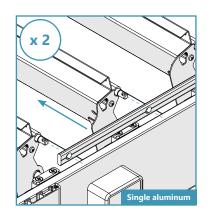
Repeat this step for all cotter pins.

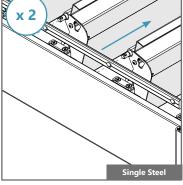
#### Reminder:

For the single louver model, the connecting strips are on both sides.









### Double aluminum

Part \ Length	5.3m/17ft.	6m/20ft.	7.2m/24ft.
G	2	2	2
S	34	38	46

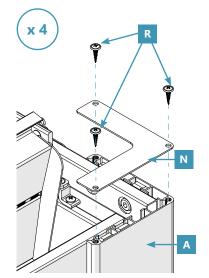
Single aluminum & Single Steel			
Part \ Length	5.3m/17ft.	6m/20ft.	7.2m/24ft.
G	<del>-</del> 4	4	4
s	68	76	92

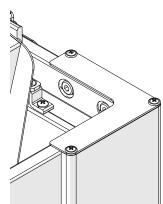
# 8. Secure the corner pillar covers N & middle pillar covers N1

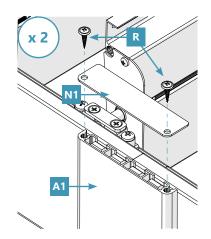
**8A** 

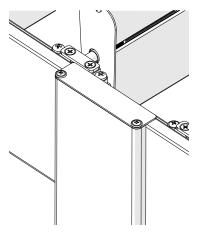
Fix a pillar cover N to the top of each corner pillar A with three screws each. Fix them using a cordless screwdriver.

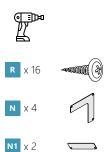
To install the middle pillar covers, fix a middle pillar cover N1 to the top of each middle pillar A1 with 2 screws R each. Fix them using a cordless screwdriver.





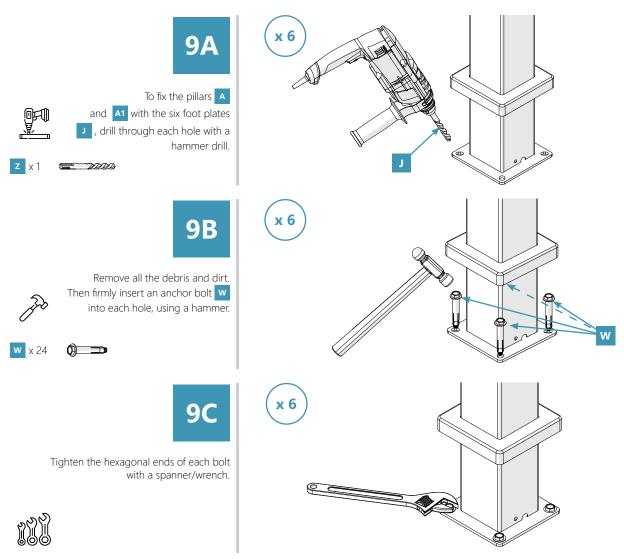




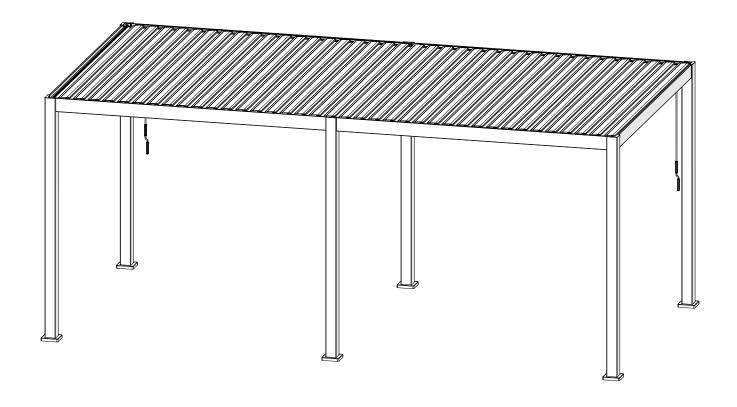


# 9. Secure the pillars to the ground

The pergola must be firmly and permanently secured to the ground. If the ground is not level or suitable, please refer to the section "Before assembling your pergola".

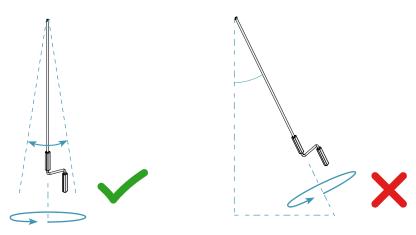


# 10. End of installation

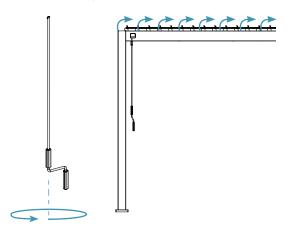


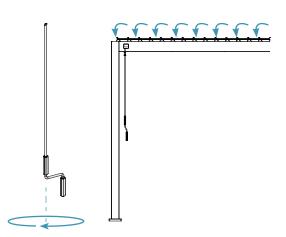
# OPERATING YOUR PERGOLA

When opening/closing the louvers, please ensure the crank remains in a vertical position next to the pillar. Do not move the crank too far away from the pillar.



To open the louvers, turn the crank handle clockwise; To close the louvers, turn the crank handle counter clockwise.





# PROBLEM SOLVING, CARE & MAINTENANCE

Issue	Explanation or action to take
Abnormal noise occurs during the rotation of the louver(s).	Check if any of the louvers are deformed. If this is the case, replace them. If the louvers are not deformed but they are colliding with one another, replace the beam.
The flatness of the louver is damaged due to weather conditions.	Replace the affected louvers.
The drain is blocked by leaves or debris.	Clean the ducts and guttering of the pergola regularly.
The Resistance to wind loads.	Class 6 ( Claimed Beaufort Wind Force Scale 12 ).
The Resistance to water pocket.	Class 1.
The Mechanical endurance.	Class 1.

## **GENERAL CARE & MAINTENANCE**

Dust and dirt will collect on the pergola and will require periodic cleaning.	Use a water/detergent mixture and a soft clean cloth to clean the pergola.	Air dry or wipe with a soft clean cloth.	For more soiled areas, rinse the surface with clean water from top to bottom.
00000		# 1900/t	
In coastal areas, it is recommended that you frequently spray the pergola with water to reduce accumulation of salt and dirt.	When the temperature is below 0°C/32°F, it is recommended to use the product less frequently to prolong the product's service life.	Do not use any petroleum based spray lubricant.	In most situations it should not be necessary to lubricate the moving components of the pergola. However, when squeaking occurs, using a silicone spray lubricant is recommended.
	<b>₩</b>	Petroleum based	Silicone based

# **PERIODIC INSPECTION**

- Check the pergola is fixed firmly to the ground.
- · Check that the driving parts are sufficiently lubricated,
- Check the screws and rivet joints on the pergola.

# WARRANTY & COMPLAINTS PROCEDURE

For terms and conditions of our limited warranty, please visit www.miradoroutdoor.com or contact your local Mirador sales representative.

#### Complaints procedure:

- The complaint must include an order number or transaction number. Goods without an order number or transaction number are not covered under the warranty.
- The complaint must include a detailed description of the defect, the name of the company which installed the product and the date when the defect was discovered.
- At Sorara outdoor Living USA's discretion, customer must offer supplier the photos/videos of the issue/damaged parts. Otherwise, supplier reserves the right to refuse replacement parts or credit.
- · Please save a copy of your purchase receipt.

#### Contact:

**Customer Service:** support@miradoroutdoor.com **Need Assistance? Call** +1 (877)-506-4777

#### **Hours of Operation:**

Phone Support: Monday - Friday: 6:30 am - 4:30 pm PST

Email Support: We are available 24 hours a day, M-F. Please allow up to 24 hours for a response.

Chat With Us Online: Monday - Friday: 5:30 am - 2:00 pm PST

**Note:** Our team is available to assist you during these hours. If you have any inquiries or require support outside of these hours, please leave a voicemail, send an email, or use our online contact form. We will get back to you promptly during the next available support hours. Thank you for choosing Mirador Outdoor!

# DISASSEMBLY AND DISPOSAL OF THE PRODUCT

Incorrect disassembly of the pergola may lead to serious injury and product damage.

Disassembly should be assigned to qualified personnel with adequate training within the scope of occupational health and safety and knowledge within the scope of recycling.

When the service life of the pergola is over, it is necessary to disassemble it for disposal and to sort the individual materials and components in compliance with the local regulations of your country.

# **CERTIFICATION** INFORMATION **Declaration of performance (DOP)**

### Reference no. DOP0001

#### Product name and type

Mirador Pergola and Mirador Wall Pergola/ pergola awning

#### Model name/ Unique identification code of the product:

111 Deluxe AxBm, 111 Deluxe e AxBm, 111 Deluxe e-Motion RC AxBm, 111 Deluxe e-Motion AxBm,

111 DA AxBm, 111 LED DA AxBm, 111 e-Motion DA AxBm, 111 e-Motion+ AxBm,

111 Deluxe Edge AxBm, 111 Deluxe Edge e AxBm, 111 Deluxe Edge e-Motion RC AxBm, 111 Deluxe Edge e-Motion AxBm, 111 Deluxe R AxBm, 111 Deluxe R e AxBm, 111 Deluxe R e-Motion RC AxBm, 111 Deluxe R e-Motion AxBm,

3x3, 3x3.6, 3x4, 3.6x3.6, 3.6x4, 3x5.3, 3x6, 3x7.2, 3.6x5.3, 3.6x6, 3.6x7.2

111 Classic AxBm, 111 Classic e AxBm, 111 Classic e-Motion AxBm, 111 S AxBm, 111 LED S AxBm, 111 e-Motion S AxBm, 111 Premium AxBm, 111 Premium e AxBm, 111 Premium e-Motion AxBm, 111 A AxBm, 111 LED A AxBm, 111 e-Motion A AxBm, AxB; 3x3, 3x3.6, 3x4, 3x5.3, 3x6, 3x7.2

111 Infinite AxBm, 111 Infinite e AxBm, 111 Infinite e-Motion RC AxBm, 111 Infinite e-Motion AxBm, 111 Infinite LED AxBm, 111 Infinite e-Motion DA AxBm, 111 Infinite e-Motion+ AxBm, 111 Infinite Edge AxBm, 111 Infinite Edge e AxBm, 111 Infinite Edge e-Motion RC AxBm, 111 Infinite e-Motion AxBm, 3x3, 3x3.6, 3x4, 3x5.3, 3x6, 3x7.2, 3.6x3.6, 3.6x4, 3.6x5.3, 3.6x6, 3.6x7.2, 7.2x7.2

#### Purpose of Usage:

External use in buildings and other construction works

#### Manufacturer:

Zhejiang Zhengte Co., Ltd. 811 Dongfang Ave, Zhejiang, PRC

#### **Documentation officer:**

Stefan Baricik Sorara Outdoor Living B.V. Cockeveld 3, 5672 AE Nuenen, The Netherlands

System for assessing and verifying the constancy of performance according to Annex V of the Construction Products Directive 305/2011/EC

System 4

#### Declared performance (Excluding the structural part):

Wind resistance = Class 6 Standard: EN 13561:2004+A1:2008

Zhejiana 20.07.23

(Chairman/President)

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