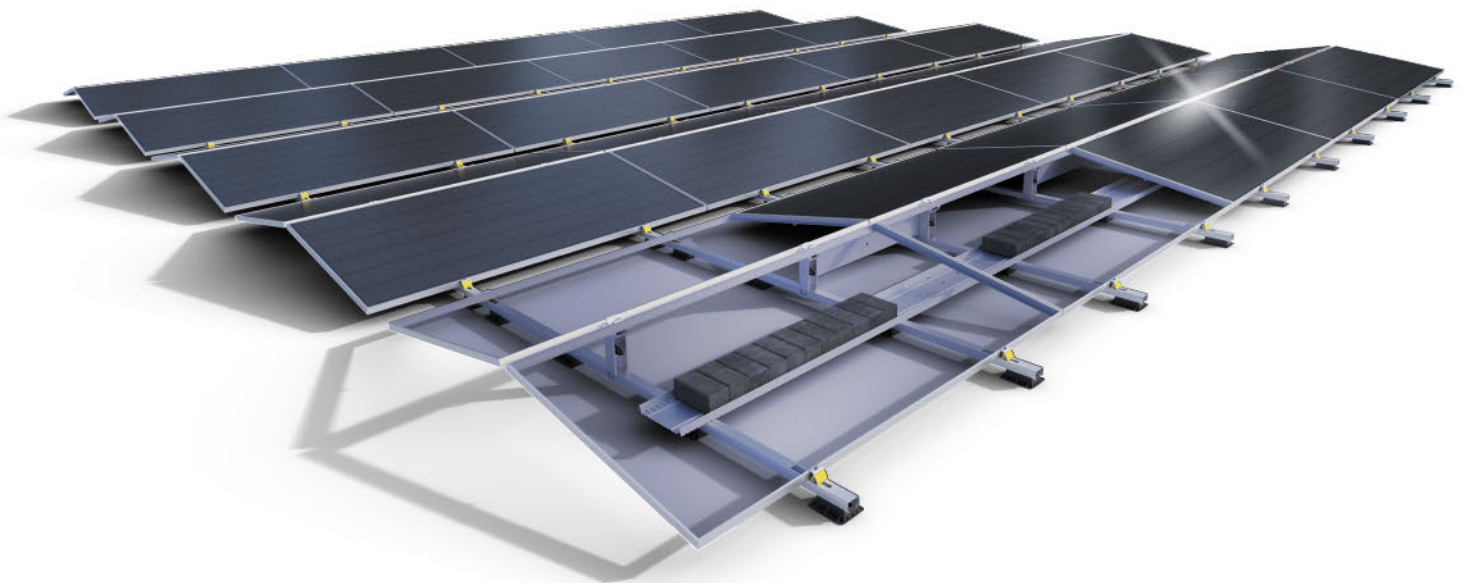


Sunbeam Supra

EN

Installation manual



September 2023 | Version 1.0 | This is the English translation of the original Dutch installation manual

General


Description of the user

This document is intended for the installer. Sunbeam Supra should only be installed by a trained installer who has fully read and understood the contents of this manual.

Intended use and reasonably foreseeable misuse

Sunbeam Supra is a mounting system for installing solar panels on flat roofs. Sunbeam Supra should only be used according to the instructions in this document. Sunbeam Supra must only be used with the original accessories and components supplied by the supplier. Any other use is considered improper use and may lead to injury, damage to the system and void the warranty.

Symbols used

Symbol	Meaning
 WARNING	This symbol indicates a hazardous situation which, if not avoided, could result in serious injury or death.
NOTICE	This symbol indicates situations not related to personal injury.
NOTE	This symbol indicates useful additional information.

Safety equipment

Always wear personal safety equipment and fall protection while installing Sunbeam Supra.

Safety instructions

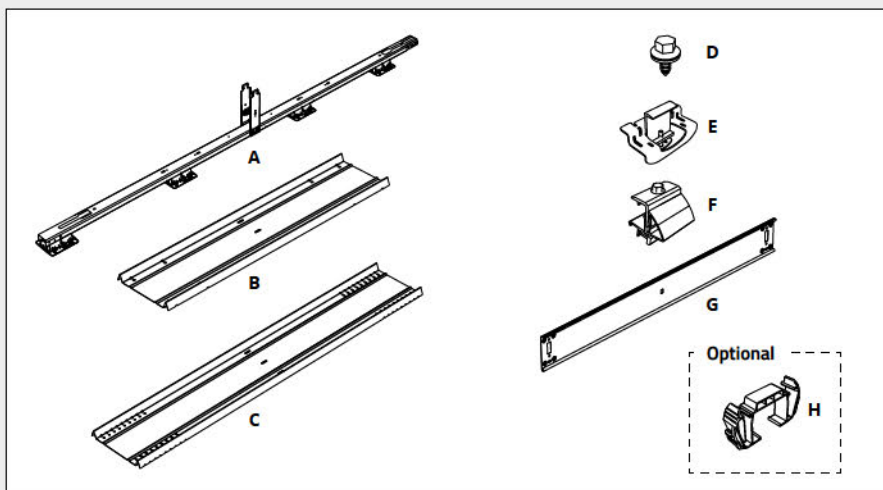
WARNING

- Always follow the national safety regulations in the country of installation.
- Always use the configuration and ballast plan derived from the Sunbeam Calculator software during installation.
- Always employ suitable safety measures on the roof such as fall protection.
- Make sure the roof is free of obstructions and clean before installation.
- Do not install the system in strong winds.
- Check that the roof covering is in good condition and that the roof structure is strong enough to support the complete solar energy system as an extra load, in addition to the loads caused by wind, water and snow.
- Check that the roof covering can withstand the maximum point load of the feet of the Sunbeam system. If necessary, the point load can be reduced by using additional feet.
- Preferably carry out system installation with at least two trained installers.
- If in doubt about any of the above, consult a structural engineer and/or roofing contractor.
- Always keep a copy of the configuration and ballast plan and this manual with the project documentation.

NOTICE

- Check that the delivery is complete before installation.
- Never place heavy pallets directly on a roof. The localised load can be very high.
- Be careful with packages that can blow away and with sharp parts that can damage the roof covering.
- Use only original parts or fittings recommended and sold by Sunbeam.
- Never walk over the system or solar panels.
- Be careful around protruding parts.
- Place the system at least 30 centimetres from the edge of the roof.

Components



- A. Base unit
- B. Ballast connector
- C. Ballast rack
- D. Short screw
- E. Top clamp
- F. Bottom clamp
- G. Connector plate
- H. Cable clamp base unit

Preparation

Recommended tools



Electric screwdriver



Socket bit 10 mm



Chalk line reel + chalk



Tape measure

Preparing a configuration and ballast plan

⚠ WARNING

- Always use the Sunbeam Calculator software with every Sunbeam project, to generate a project-specific configuration and ballast plan.
- Always check that the actual weight of the ballast used matches what is shown in the configuration and ballast plan.
- Only systems installed according to a configuration and ballast plan from the current Sunbeam Calculator at the time of ordering are eligible for the Sunbeam product warranty.

Preparing the configuration and ballast plan.

NOTE

The configuration and ballast plan contains all the information regarding the installation of the ballast. Calculate the position and quantity of ballast for your specific project using the calculator software.

Marking the field

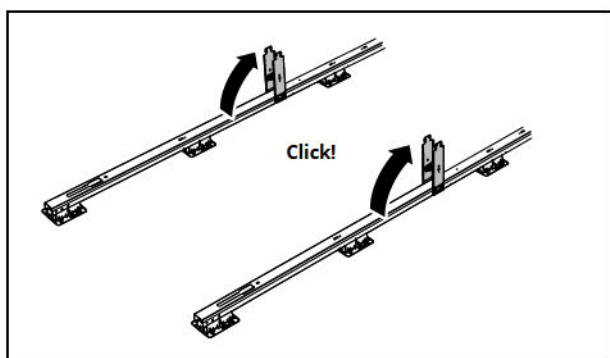
Mark the field on the roof with chalk or string. Follow the configuration plan.

NOTE

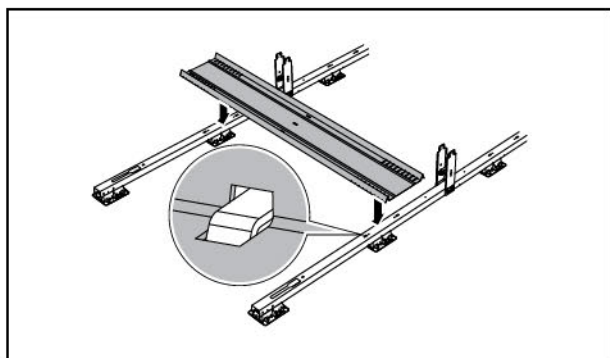
Adhere to the dimensions described in the configuration and ballast plan.

Supra Symmetrical system installation

Positioning the rows

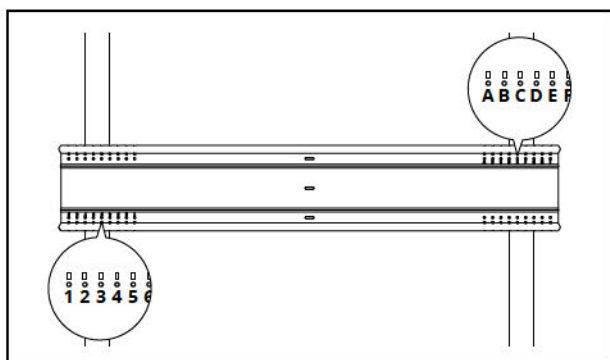


1. Place the first row of base units on the roof according to the configuration plan.
2. Lift up the pillars until you hear a click.

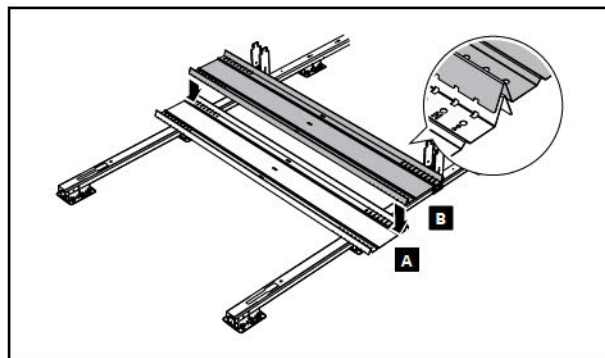


- 3a. In the case of a single ballast rack: Place the ballast rack across the two base units below the panel position.

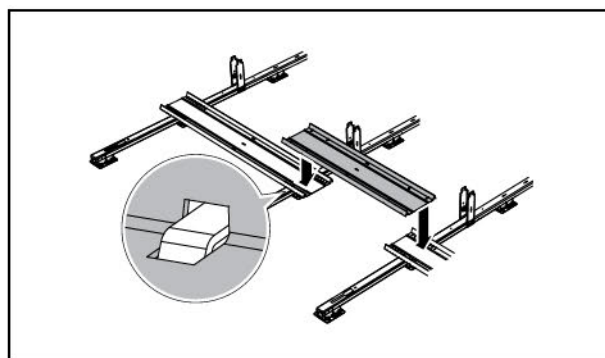
NOTICE Do not screw down the ballast rack yet.



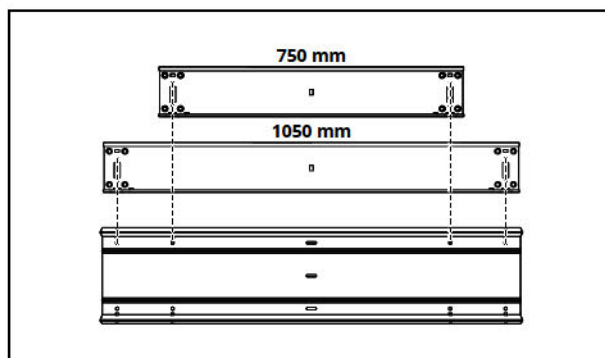
NOTE The ballast rack features numbers and letters. The number-letter combination of the panel used can be found in the configuration plan, or in the back of this manual.



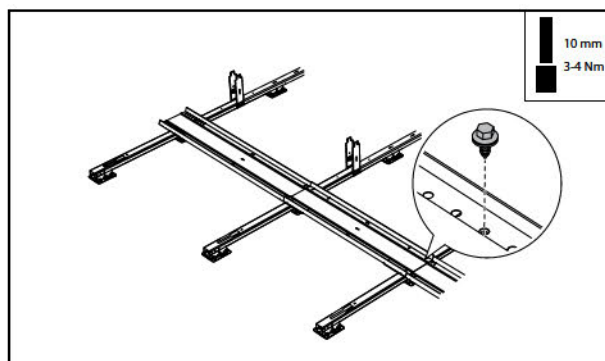
- 3b. In the case of double ballast racks: Place a ballast rack at position A and position B.



4. Place the ballast connector between the ballast racks.

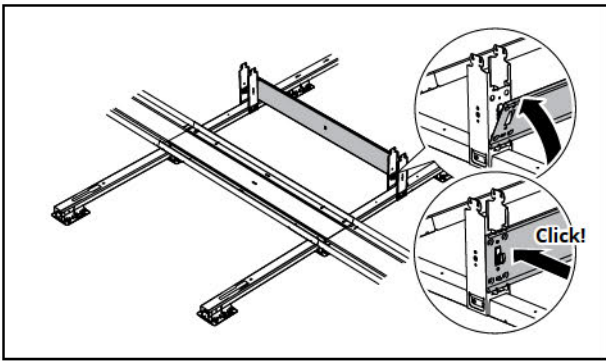


NOTE Make sure the holes used in the ballast connector match the length of the connector plate.

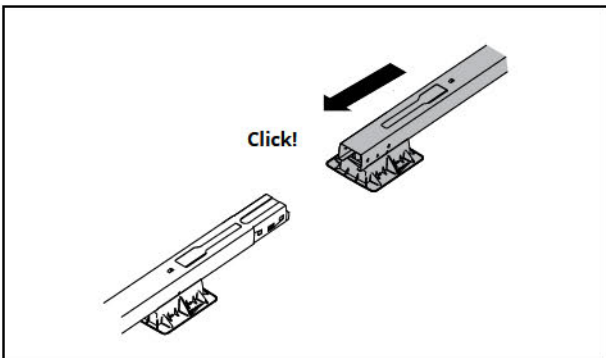


5. Fix the ballast rack with four short screws.

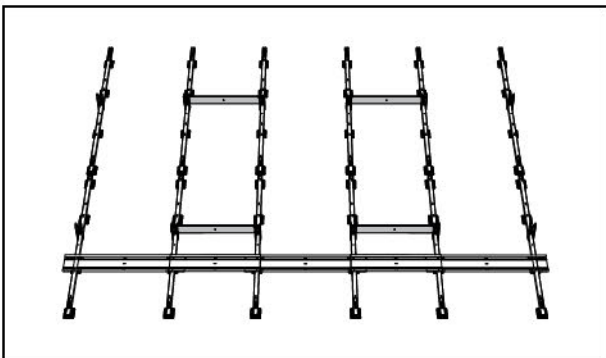
NOTE When using double ballast racks, only the first ballast rack needs to be fixed with screws.



6. Place the connector plate between the pillars. Align the holes of the connector plate with the holes in the pillars. Press down the connector plate until you hear a click.
7. Repeat steps 3 to 6 for the first row of base units.

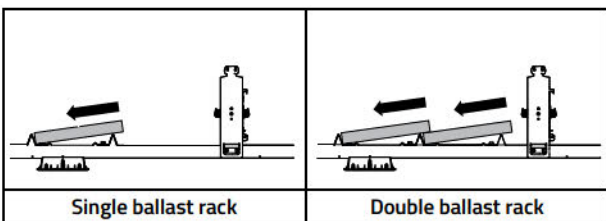


8. Place the next row(s) of base units on the roof according to the configuration plan. Slide the base units into each other until you hear a click.

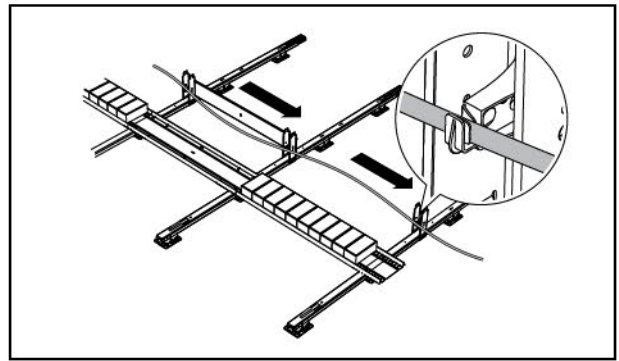


9. Place all the remaining connector plates between the panel positions.
10. Place the remaining ballast racks according to the ballast plan.
11. Place the ballast according to the ballast plan.

NOTE

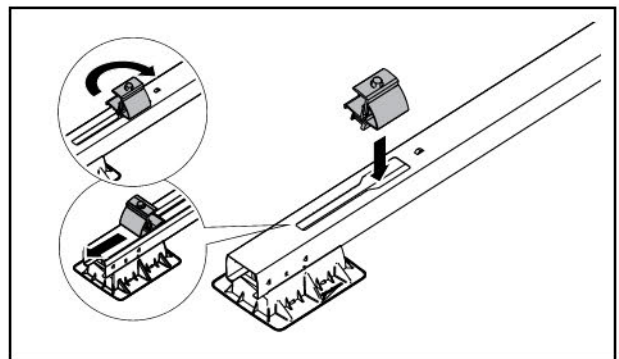


- Only use the type of ballast described in the ballast plan.
- Never stack ballast.
- When using tiles as ballast, place the tiles as shown above.

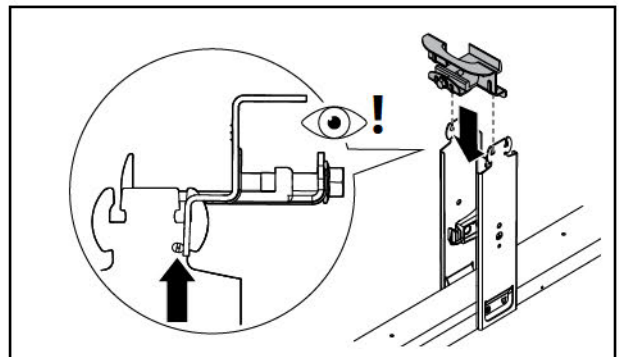


12. Lay out the return cables.

Placing the panels

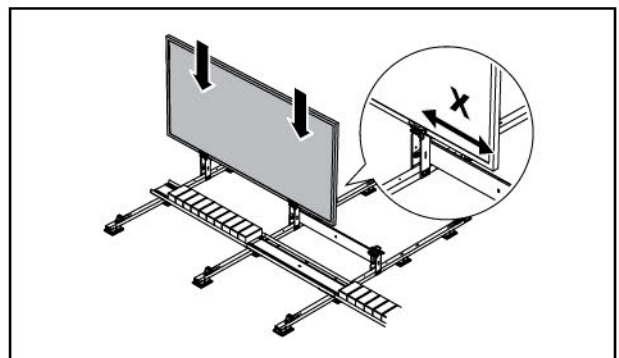


13. Twist the bottom clamps into the base units and slide them backwards into the channel.



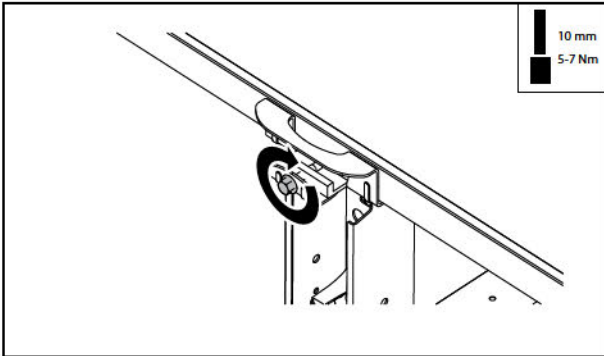
14. Insert the top clamps facing upwards into one side of the pillars.

NOTE Make sure the top clamp is in front of the ridge of the pillar, so that the clamp remains facing upwards.

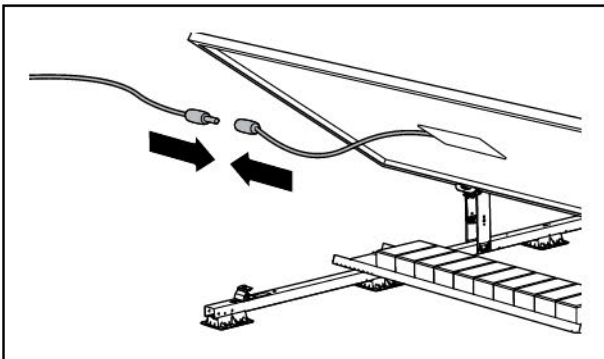


15. Place the panel upright into the top clamps. Align the panel so that the distance from the short side of the panel to the clamp (x) is equal on both sides.

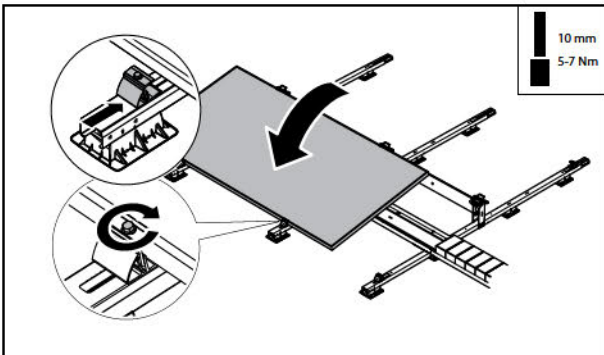
Supra Symmetrical system installation



16. Tighten the screws of the top clamps.

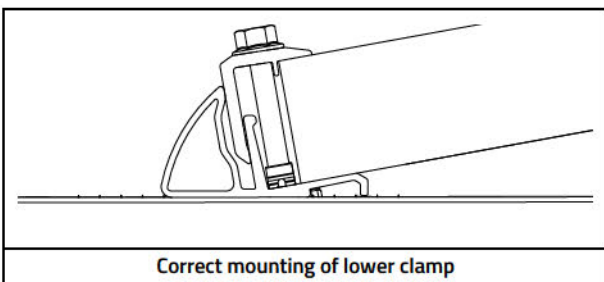


17. Connect the panel cable.

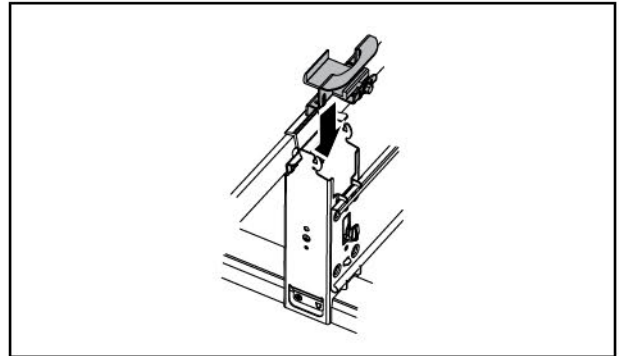


18. Turn the panel downwards.

19. Slide the lower clamps against the panel and tighten the screws.



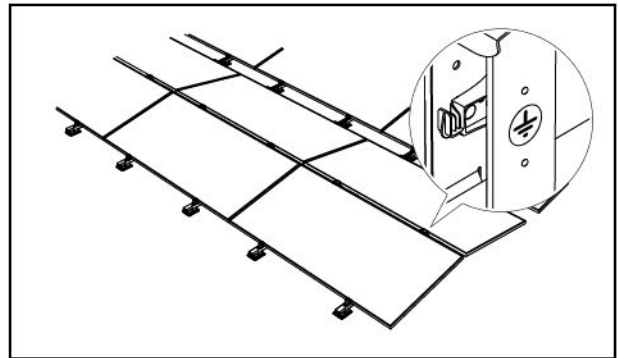
20. Repeat steps 15 to 19 to lay the rest of the first row of panels.



21. Insert the top clamps facing upwards into the other side of the pillars.

22. Repeat steps 15 to 19 to lay the rest of the rows.

Finishing



23. Ground the system. Use the grounding option on the side of the pillar.

Ballast rack numbers and letters

Refer to the table below to determine the correct position of the ballast rack according to the panel length.

Panel length (mm)				Position
Minimum	Maximum	Minimum	Maximum	
Connector plate 750		Connector plate 1050		
1776	1800	-	-	A1
1801	1825	-	-	A2
1826	1850	-	-	B2
1851	1875	-	-	B3
1876	1900	-	-	C3
1901	1925	2201	2225	D3
1926	1950	2226	2250	D4
1951	1975	2251	2275	E4
1976	2000	2276	2300	E5
2001	2025	2301	2325	F5
2026	2050	2326	2350	F6
2051	2075	2351	2375	G6
2076	2100	2376	2400	G7
2101	2125	2401	2425	H7
2126	2150	2426	2450	H8
2151	2175	2451	2475	I8
2176	2200	2476	2500	I9

Installation manual

Safety standards

The national regulations in the country of installation must be observed at all times. Make sure you are aware of the safety measures prescribed by Sunbeam or the country of installation. If in doubt, consult your safety officer. Ensure safety or health hazards are shared with the employer, supervisor and employee carrying out the work for their information.

General safety

- For the Netherlands: Working Conditions Decree Articles 3.16, 7.23 and 8.1 to 8.3.
- For Belgium: General Regulations for Occupational Health and Safety (ARAB).

Electrical installation

- For the Netherlands:
 - NEN1010 - Chapter 7.12
 - NPR 5310 - Chapter 7.12
 - NEN 3140
- For Belgium: General Regulations on Electrical Installations (AREI).

Roof construction and various loads

- General:
 - EN 1990
 - EN 1991-1-3
 - EN 1991-1-4
- For the Netherlands: NEN 7250

Sustainability

As a manufacturer and supplier of panel mounting systems, we are committed to protecting the environment. In the event of a faulty system, please contact Sunbeam first. It may still be possible to repair the system.

Should you need to dispose the system, please dispose of the system according to the local applicable regulations. By properly disposing of the various materials, you will help prevent potential hazards to the environment and human health. The recycling of materials also contributes to the conservation of natural resources.

Warranty

Please refer to www.sunbeam.solar/en for warranty conditions.

'Sunbeam' is a registered trademark.

The Sunbeam designs are protected by several international patents.