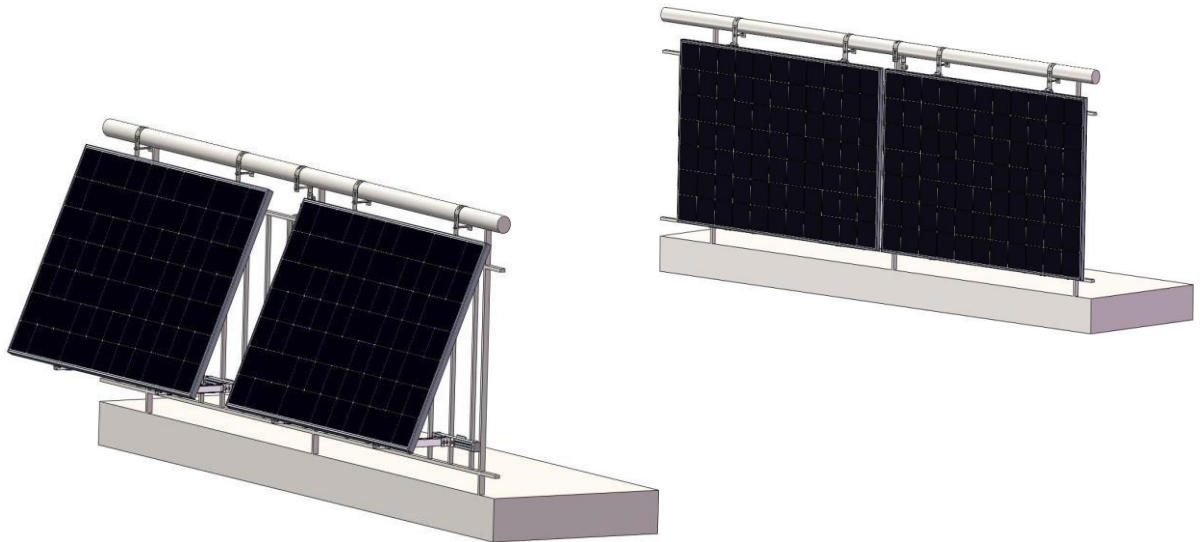




NUASOL

**The energy transition starts
now!**

**Solar panel mounting kit for round/square
railings**







Mounting kit for round/square railings

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Thank you very much

that you have chosen our **NuaSol product** and are actively involved in the energy transition. According to our motto: "Together we can achieve the conceivably impossible", we would like to offer everyone the opportunity to contribute sustainably to the preservation of our planet in an uncomplicated way.

We have set ourselves the goal of sharing the enthusiasm we have developed for renewable energies and especially for solar energy with everyone and making it accessible at fair prices. Be a part of the turnaround and get your environment to participate!

If you have any questions, please contact us via e-mail to info@nuasol.de or by phone at 0931 9080 3000.















1. Introduction

- With the balcony mounting kit, solar panels can be attached to the balcony railing. It is a smart and simple mounting solution for residential projects
- The main material of this mounting kit is aluminum alloy AL6005-T5 and stainless steel SUS304. The product has high corrosion resistance.
- The set is assembled in no time at all, saving a lot of time and money
- Please read the complete instructions carefully before assembly

1.1 Accessories required for mounting

				
Rope	Cordless screwdriver	6kant bit (M6/M8)	Drill attachment 9mm	Tape measure
				
Pen (Marker)	Torque wrench	6kant wrench	adjustable wrench	Mallet











2. Safety

- Stay away from flammable materials.
- Note: The system parts are all surface treated to prevent damage during installation and transportation.
- Adhere to the assembly sequence to avoid damage.
- All parts or components should always be in good condition to prevent slipping and damage.
- In order to avoid personal injury, safety precautions must be taken before and during assembly.
- Assembly work must be carried out according to the instructions in order to avoid problems and accidents.
- Do not start the assembly if the system is damaged or components are missing.
- During installation and commissioning, you should take care of your own safety and falling objects to avoid injury or scratches.
- Ice, snow and dew on the surface of components should be removed before assembly. Note: Do not damage the coating of the component.
- Clean the friction surface of the screw before installation. Make sure there is no dirt there, such as water droplets, mud or oil.



3. Explanation of symbols

	<p>Danger This sign indicates a hazard that could lead to the destruction of the system or death or serious injury.</p>
	<p>Falling components This symbol indicates the possibility of falling parts and the resulting danger to third parties or property.</p>
	<p>Danger when lifting When lifting or roping components, there is a risk of improperly attached parts or loose ropes. The area below must be kept clear. Parts can get out of control due to the wind.</p>
	<p>Read the instruction manual in its entirety before starting assembly.</p>
	<p>Wear goggles when drilling, sawing, bending.</p>
	<p>Wear a seat belt when you are on unsafe terrain.</p>
	<p>Wear hearing protection when drilling, sawing, bending.</p>
	<p>Wear work gloves. Metal burrs may be present.</p>



4. Part Numbers





Part.	Designation	round/square railing	
		Single panel 4252023111973 4252023111959	Doppelpanel 4252023111980 4252023111966
AR / EU	Balcony hook with L-connection (R: round / E: square railing)	2X	4x
BR / BE	Micro Inverter Balcony Hook (R: round / E: square railing)	1X	1x
S1	Screw bag for balcony hooks, including: hexagon socket screw M8x100 flat washer M8 Flat disc M8 nut M8	3x	5x
THREE	Micro Inverter Mounting Plate	1X	1x
CR	Montageschiene	2X	4x
LIKE	Mounting Rail Adapter Plate	4X	8x
CC	Montageschienenkappe	4X	8x
S2	Screw bag for part C, including: external hexagon bolt M8x80 spring washer M8 Flat Pad M8 Nut M8	8X	16x
S3	Screw bag for part D/E, including: external hexagon bolt M8x20 spring washer M8 Flat Pad M8 Nut M8	4x	8x
D	25-45° Verlängerungshalterung	2X	4x
And	0° Stützbasis	2X	4x
F	Replacement rubber pads for Balkonhaken	3X	5x



5. Overview of Assembly Parts

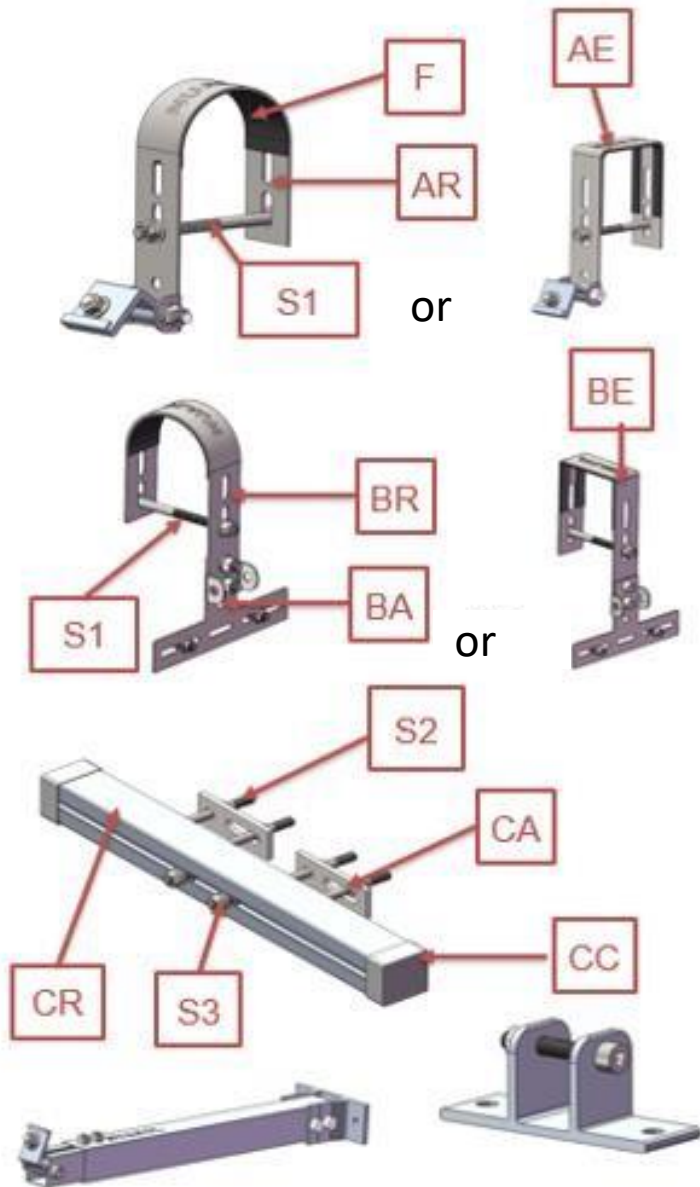
A
Balkonhaken
(PV-Modul)

B
Balkonhaken
(Wechselricht
er)

C
Montage-
schiene

D
Verlängerungs-
halterung

E
0° Stützbasis



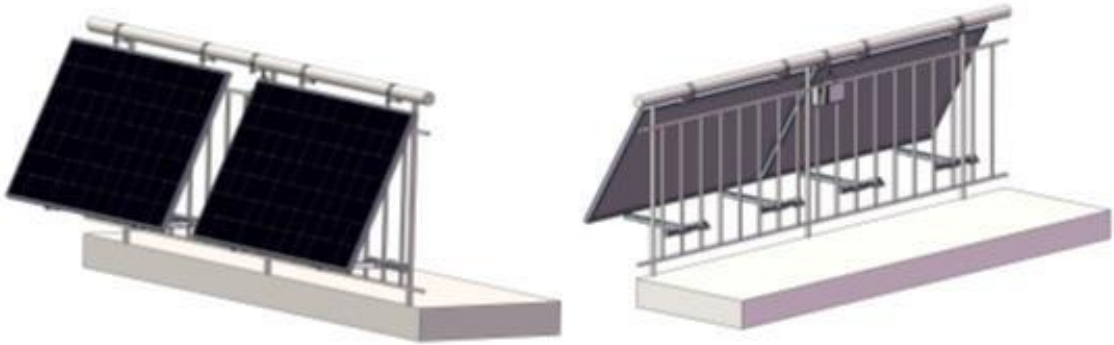
* L-Gelenk ist auf Komponente A/D vormontiert.



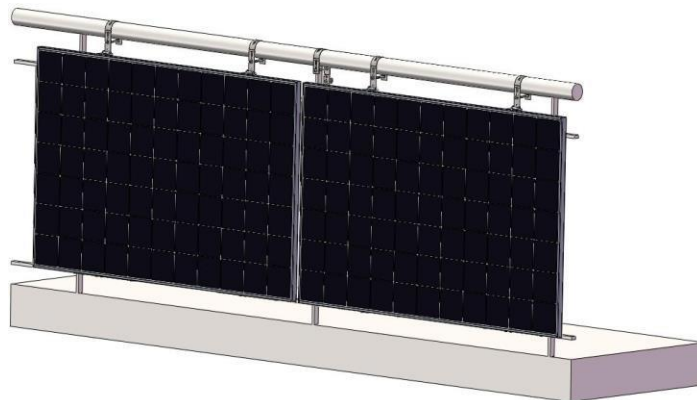
6. Mounting options

With this set you can mount your balcony power plant with an angle of inclination of 0° or with adjustable $25-45^\circ$. See sketch below.

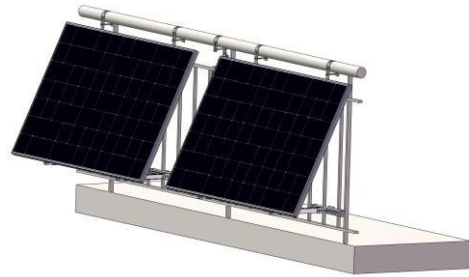
▪ $25-45^\circ$ adjustable Mounting option



▪ 0° Assembly

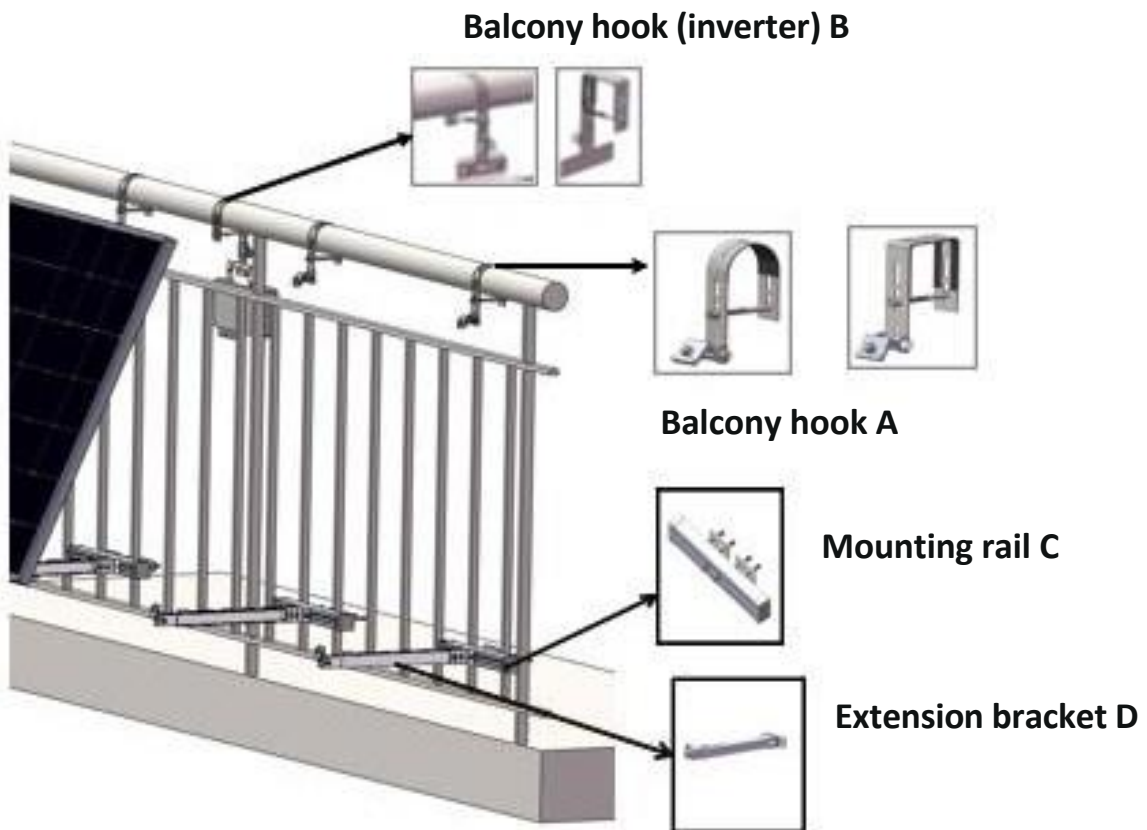


6.1 25-45° adjustable mounting



For this method of mounting, you will need the following parts:

- Balcony hook A (part no.: AR or AE, S1)
- Balcony hook inverter B (Part no.: BR or BE, BA, S1)
- Mounting Rail C (Part No.: CR, CA, S2, S3, CC)
- Verlängerungshalterung D (Teilenr.: D)

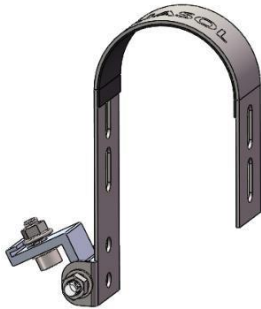




6.1.1 Installation of the balcony hook A

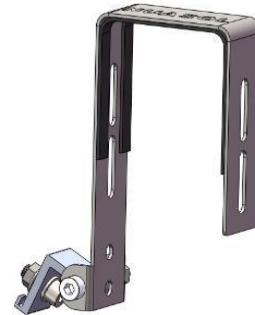
Choose the right balcony hook according to your balcony railing. The following example shows a round railing

Balkonhaken AR



Anwendbar auf rundem
Balkongeländer, Durchmesser $\leq 80\text{mm}$

Balkonhaken AE

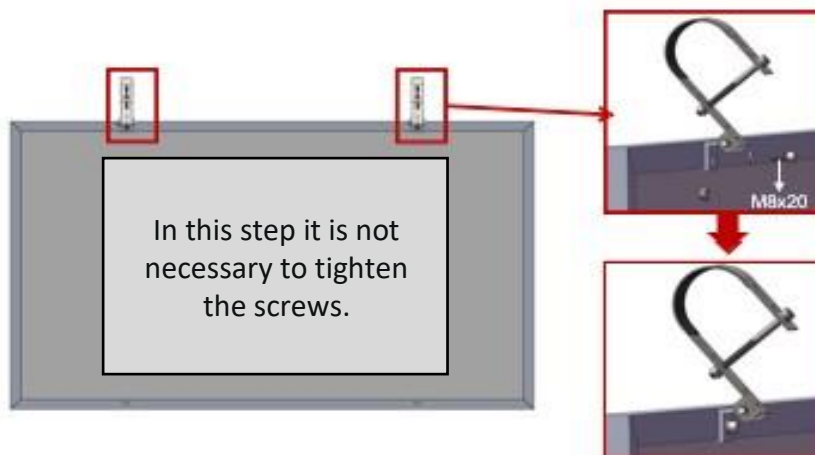


Anwendbar auf quadratischem
Balkongeländer, Breite $\leq 80\text{mm}$



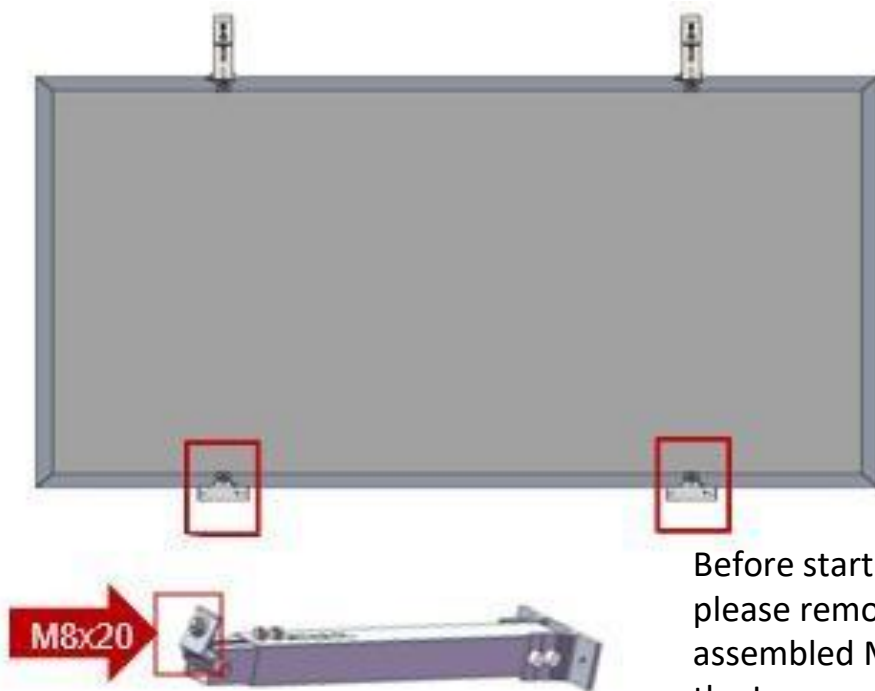
Before starting the assembly, please remove the pre-assembled bolt M8x20 from the hook. Put it aside for the next step.

Mount the balcony hook AR on the panel as shown in the figure below.



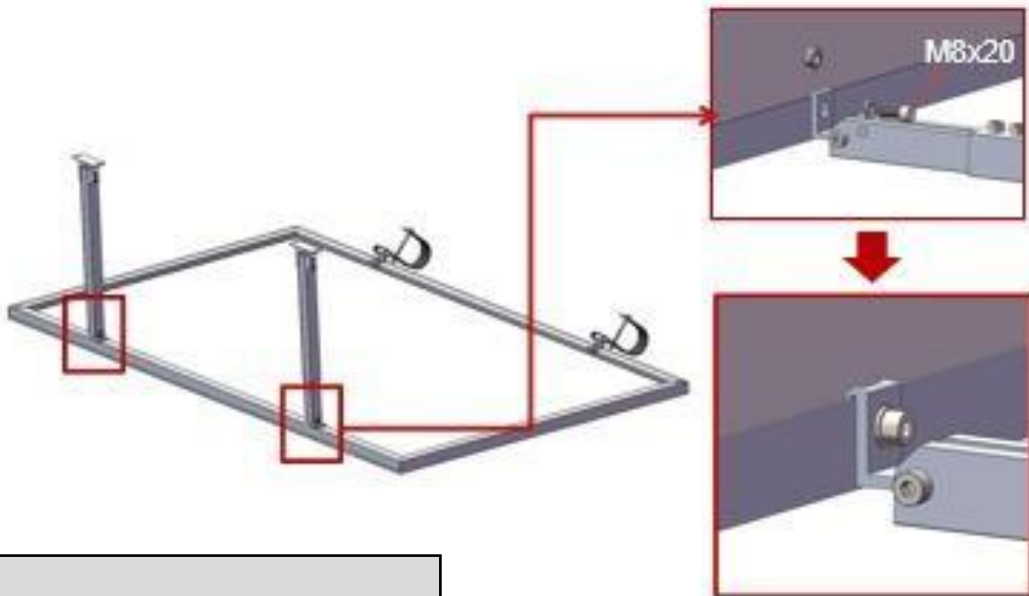


6.1.2 Installation of the extension bracket (D)



Before starting this step, please remove the pre-assembled M8x20 bolt from the L-connector on the extension bracket. Put it aside.

Install the extension bracket (D) on the rear frame of the solar panel as described below.

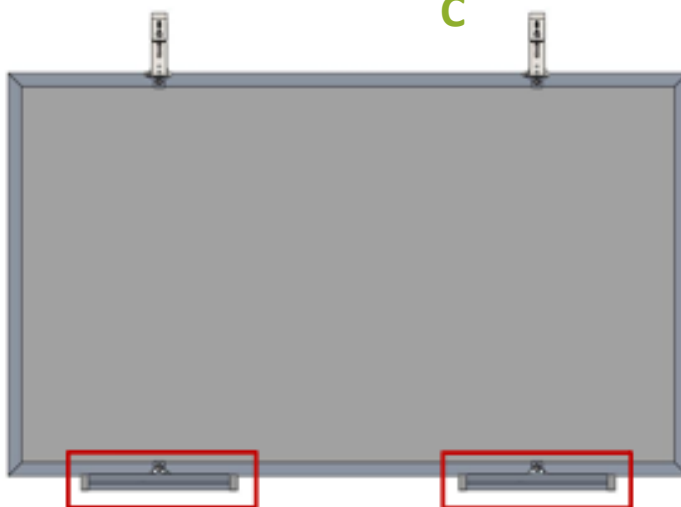


In this step it is not necessary to tighten the screws.



6.1.3 Installation of the mounting rail

C

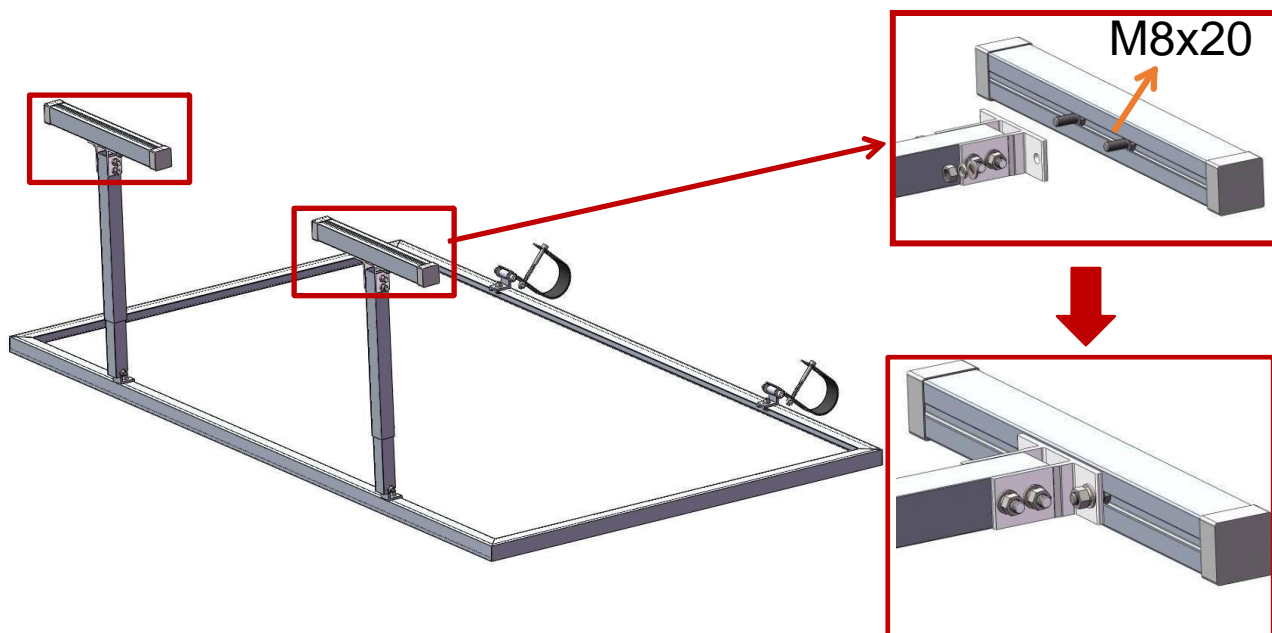


Connect the mounting rail (C) and extension (D) to the outer hexagonal bolt M8x20 (S3) and screw them tightly.

In this step, please tighten the screws.

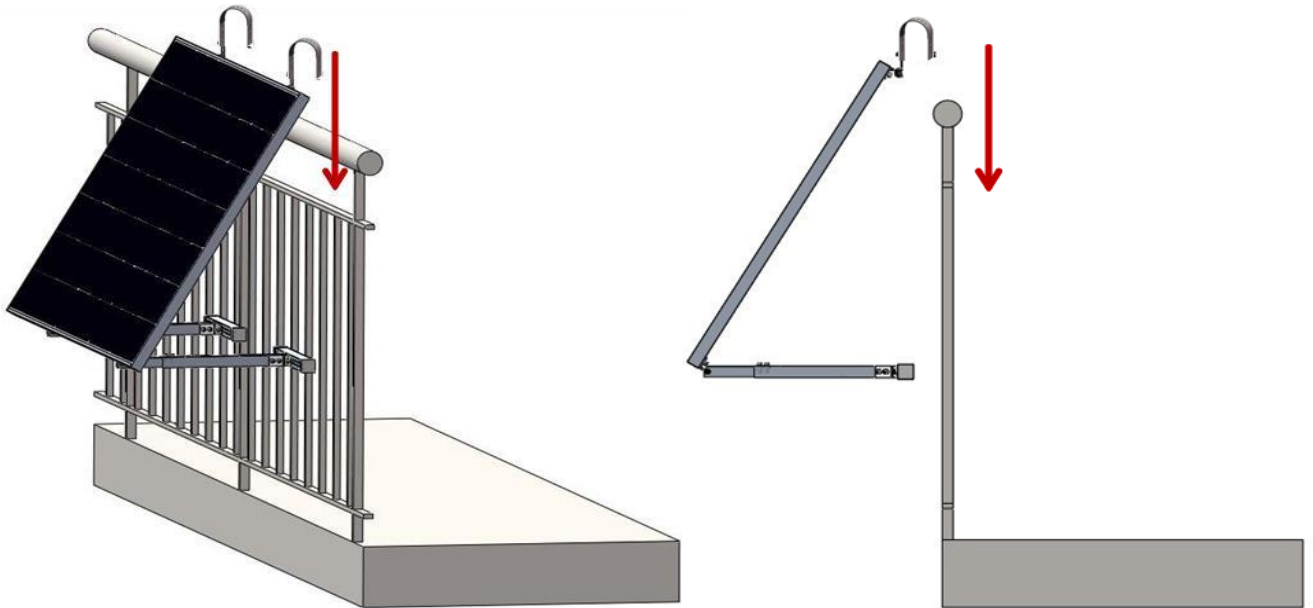


Use the screw bag S3.

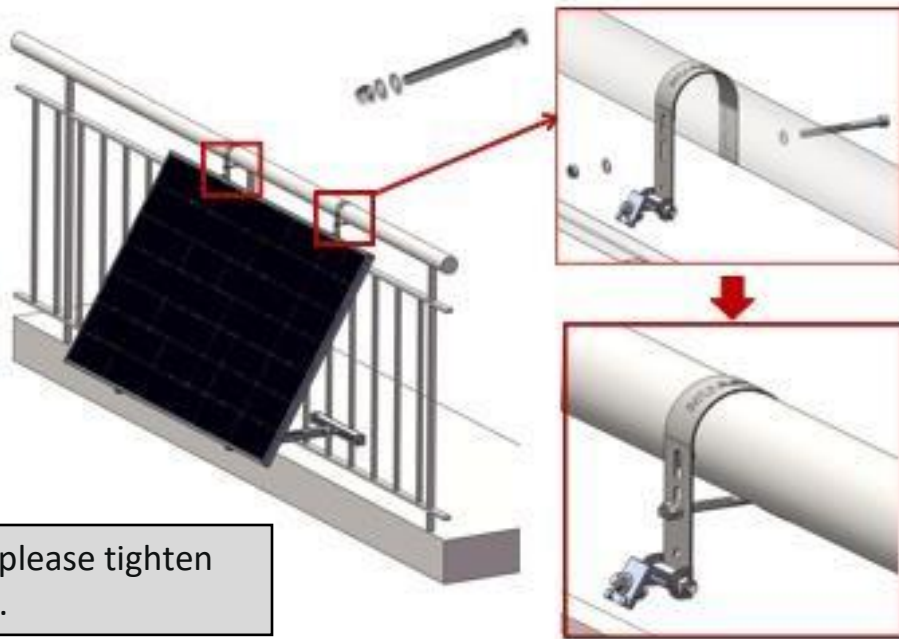




6.1.4 Installation on the balcony railing



Hang the complete kit on the balcony railing, and then fix it with the M8x100 (S2) bolt.



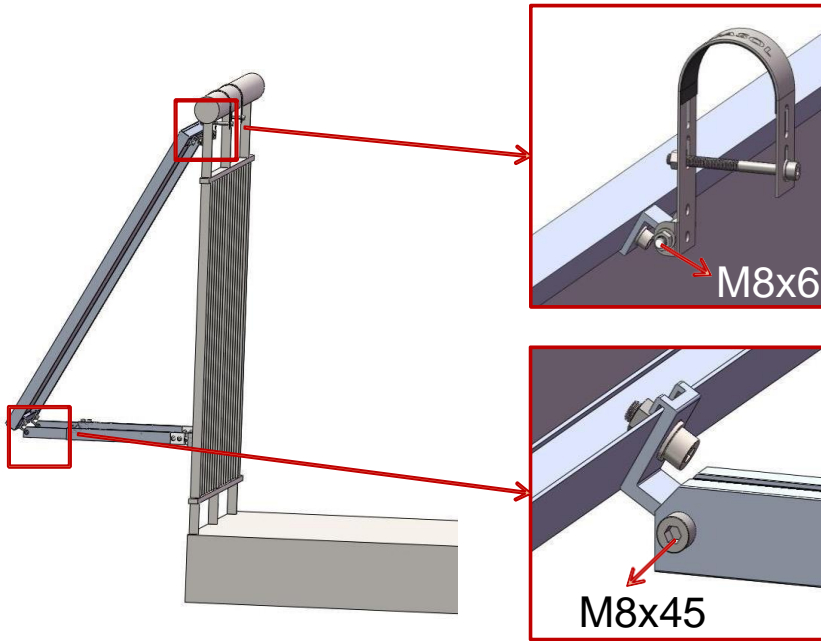
In this step, please tighten the screws.

Use an additional rubber pad (F) between the hook and the balcony railing if the gap is loose.

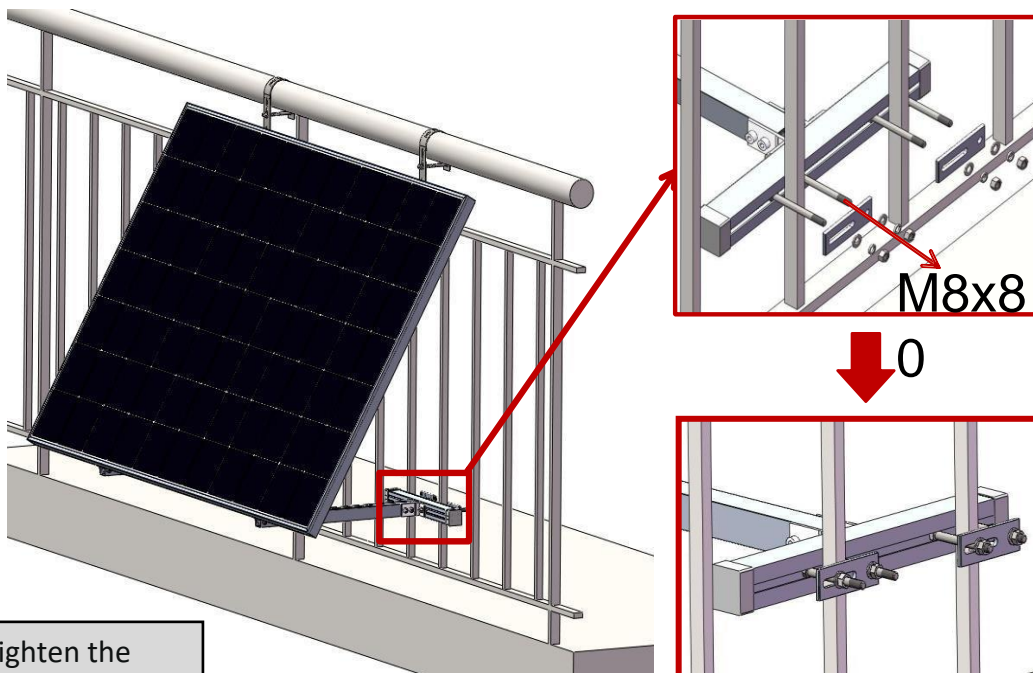


6.1.5 Adjusting the angle of inclination

Depending on the angle of inclination required, adjust the length of the extension bracket (D), then tighten the screws M8x60 (L-connector of the solar hook) and M8x45 (L-connector of the extension bracket)



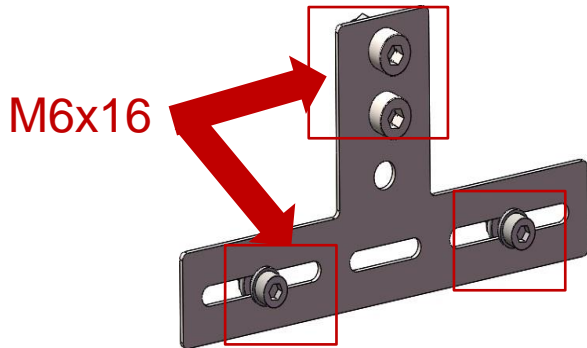
Next, attach the mounting rail (C) to the balcony railing with bolt M8x80 (S2) and tighten it.



please tighten the screws in this step



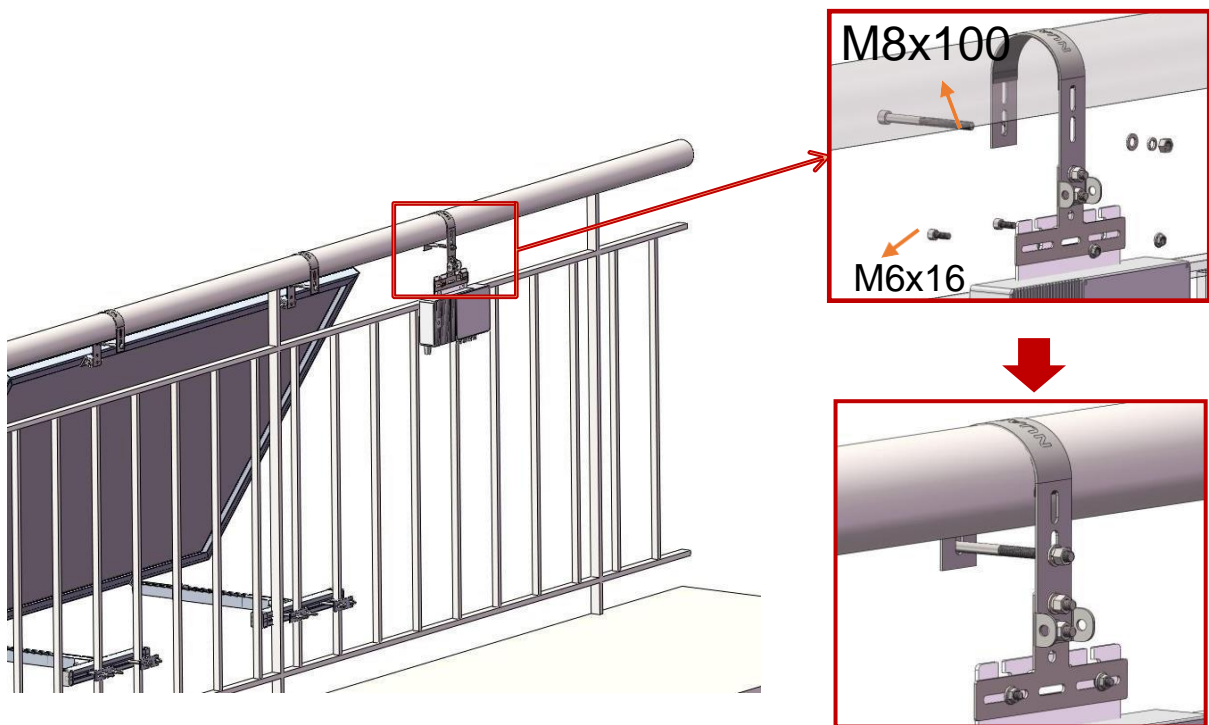
6.1.6 Installation of the inverter kit on the balcony railing



Before starting the assembly, please remove the pre-assembled bolt M6x16 from the hook. Put it aside.

ATTENTION: The adapter plate is designed for NUASOL inverters. Inverters from other manufacturers may not be compatible.

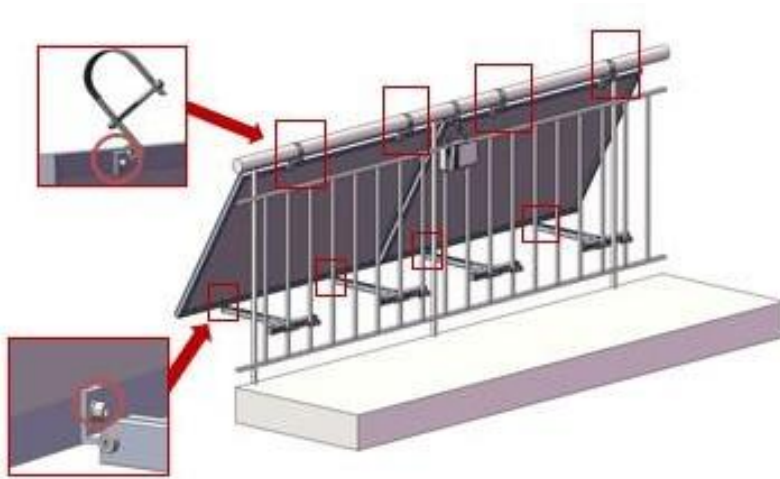
Hang the inverter kit on the balcony railing and tighten the M8x100 (S1) & M6x16 bolt. Pay attention to the direction of hanging.



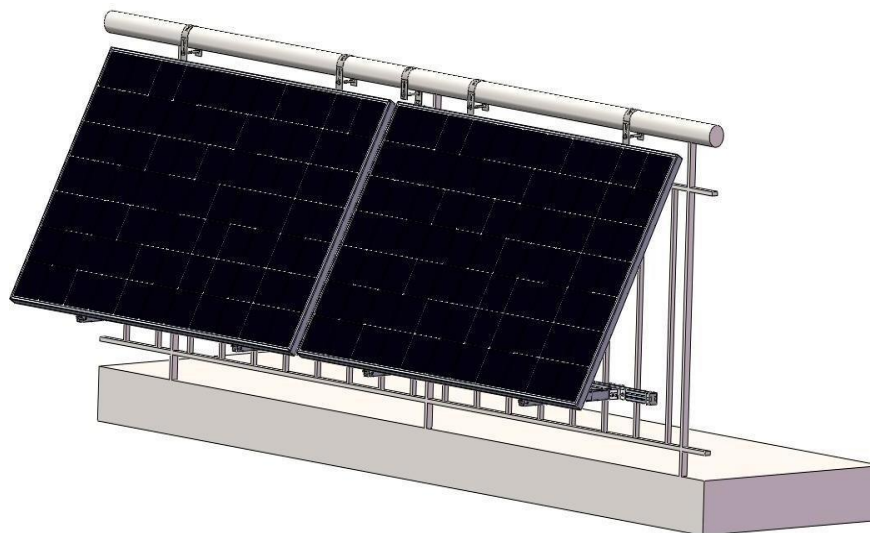


6.1.7 Fastening the screws

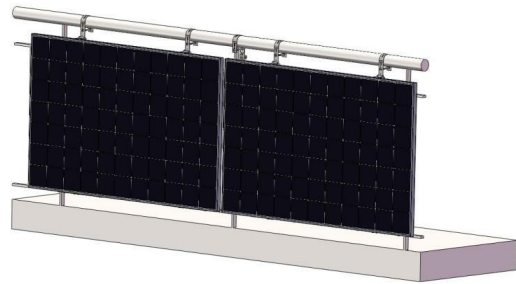
Tighten all screws tightly



The installation is now complete.

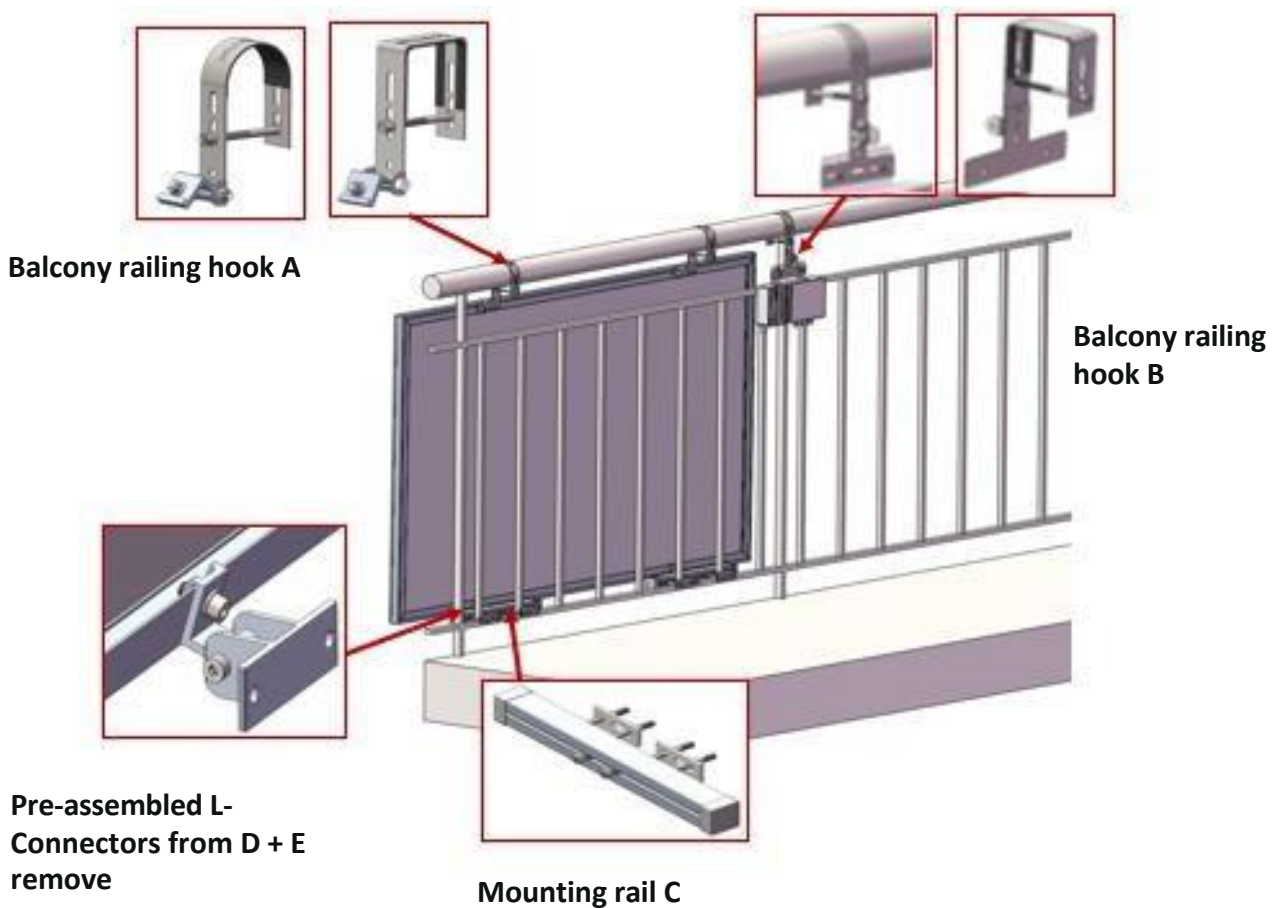


6.2 0° mounting



For this method of mounting, you will need the following parts:

- **Hook A** (Part No.: AR or AE, S1)
- **Inverter hook B** (part no. BR or BE, BA, S1)
- **Mounting Rail C** (Part No.: CR, CA, S2, S3, CC)
- **Pre-assembled L-connector made of extension bracket D** (Part No.: D)
- **0° support plate E**





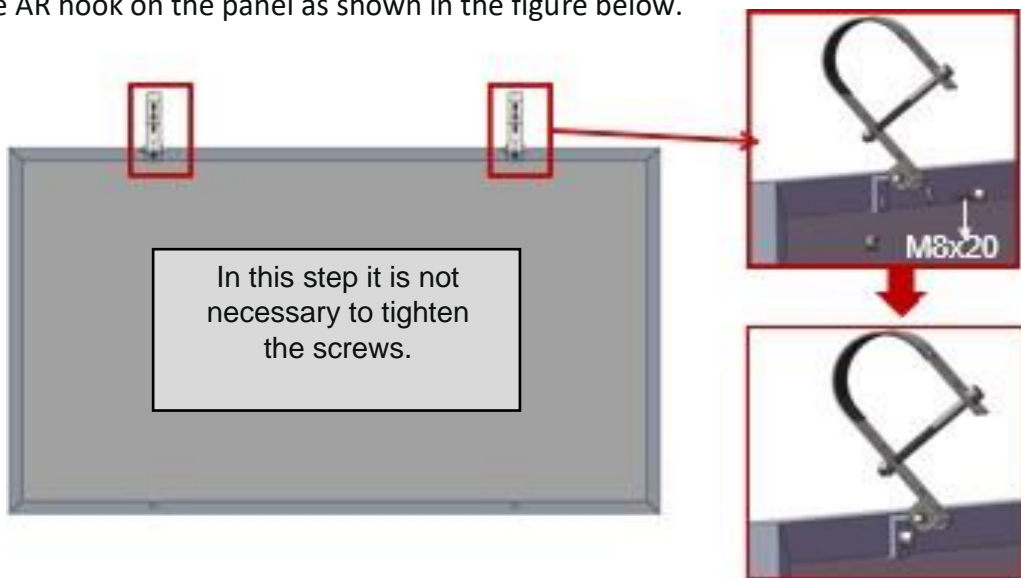
6.2.1 Installation of balcony hooks A

Lock the balcony hook A to the rear frame of the solar panel as shown in the figure below.



Before starting the assembly, please remove the pre-assembled screw M8x20 from the hook. Set them aside.

Mount the AR hook on the panel as shown in the figure below.

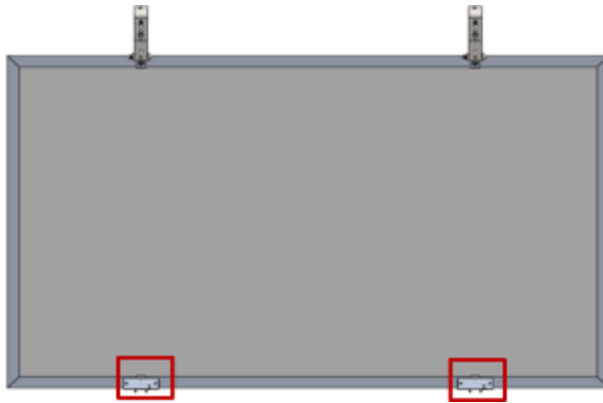


Before proceeding to the next step, please remove the pre-assembled L-connection from Part D. In the next step, this L-connection must be fixed with the 0° base (E).

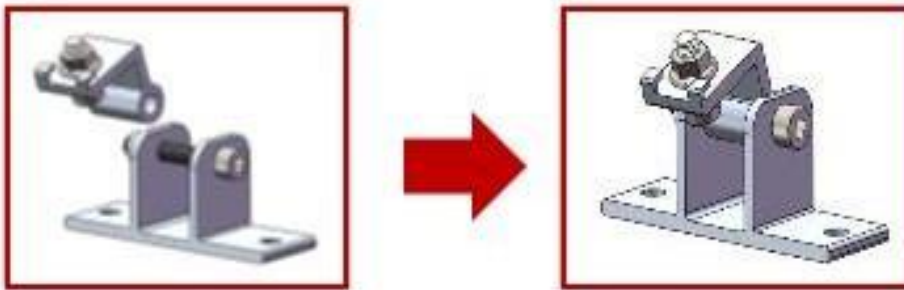




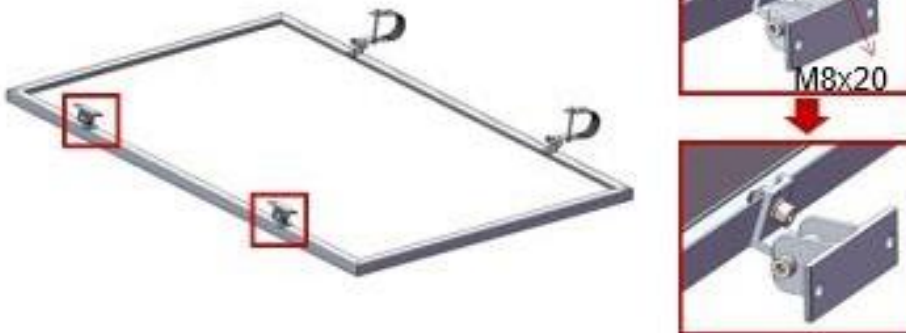
6.2.2 Installation of the 0° support base E



Connect the L-joint (from Part D) to the 0° support base (E) as shown below



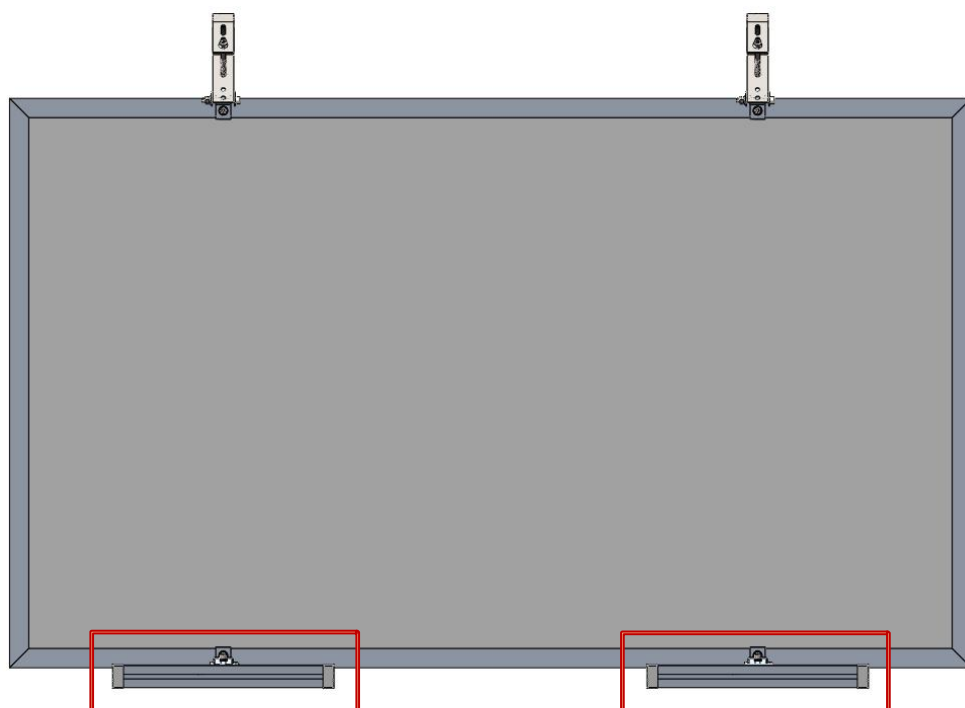
Then mount the base (0° support base with L-joint) on the plate as shown below



In this step it is not necessary to tighten the screws.

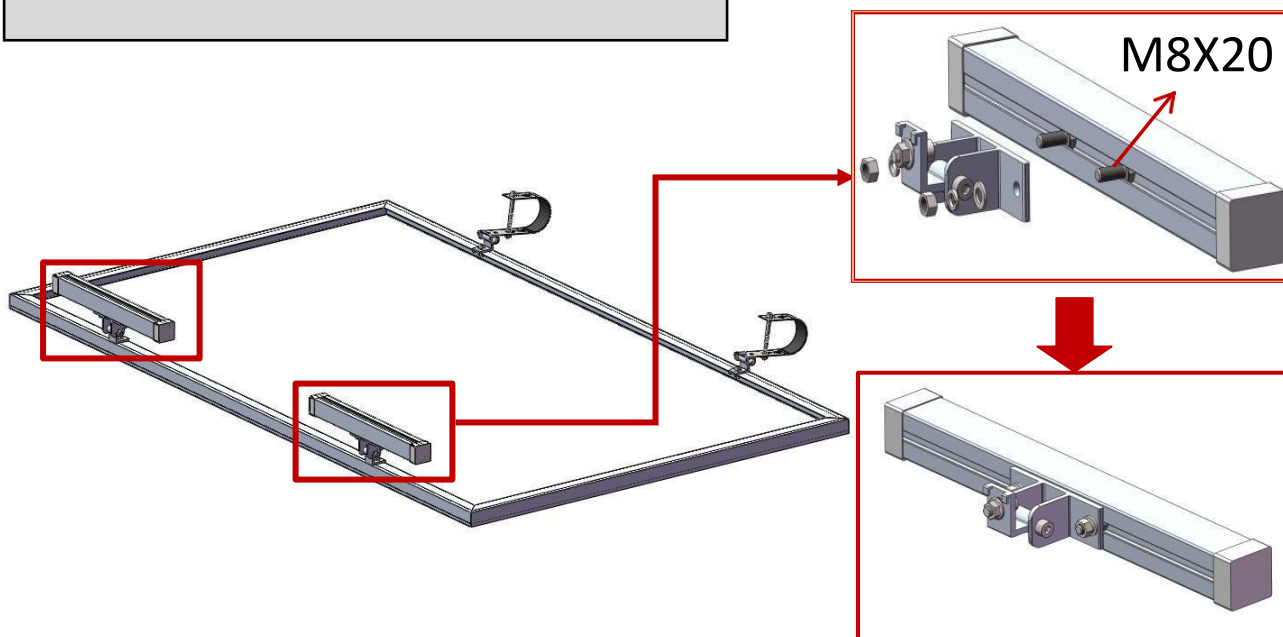


6.2.3 Fastening of the mounting rail C



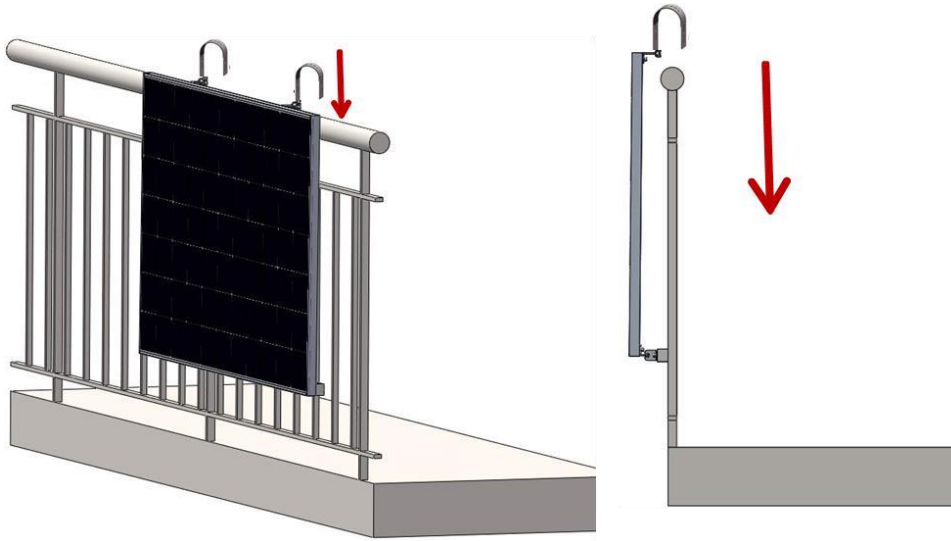
Connect the mounting rail (C) and the 0° support base (E) to the M8x20 screw and tighten them.

Tighten the screws in this step.

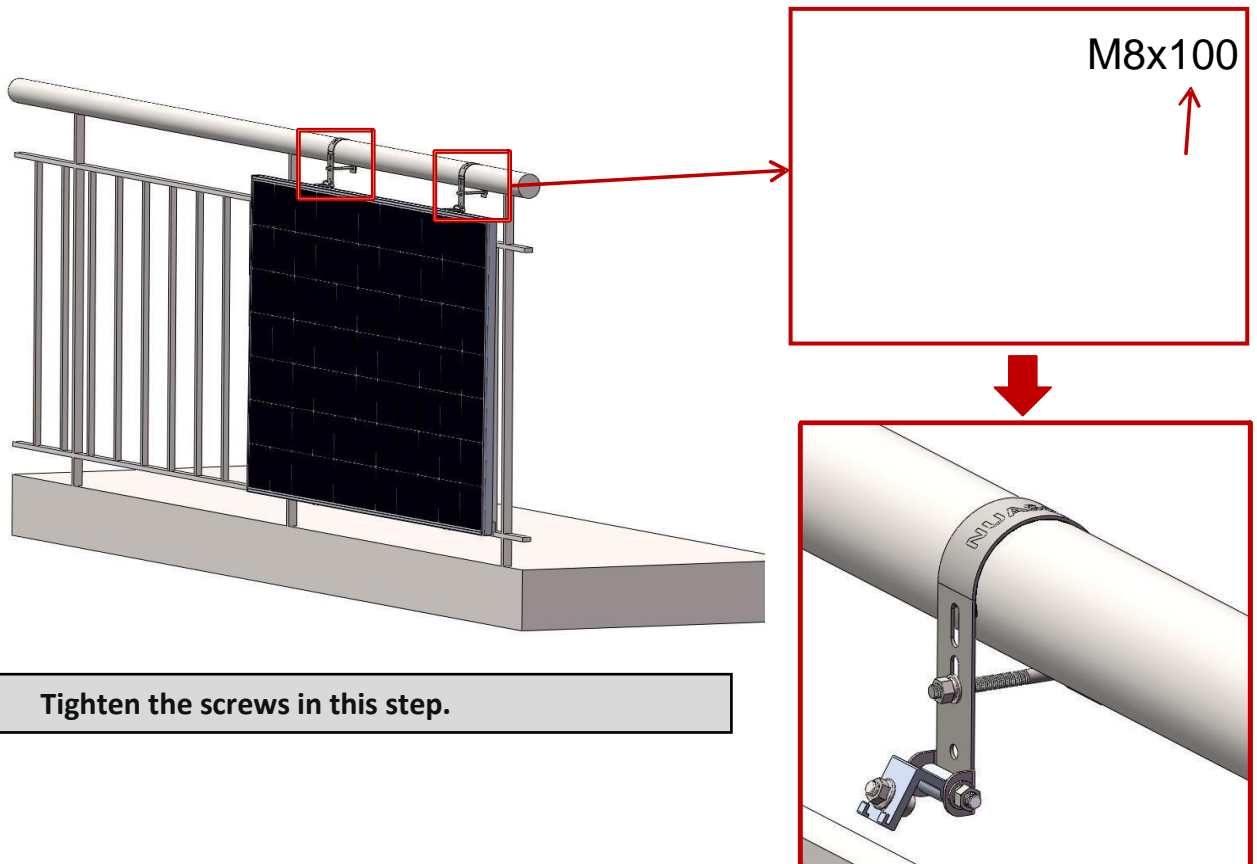




6.2.4 Installation on the balcony railing



Hang the complete system on the balcony railing, and then fix it with the M8x100 (S2) screw



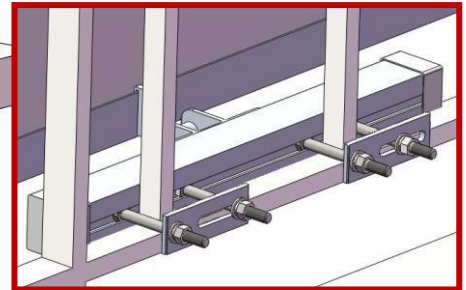
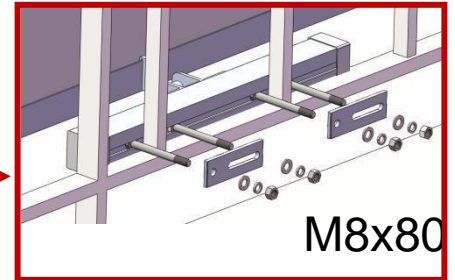
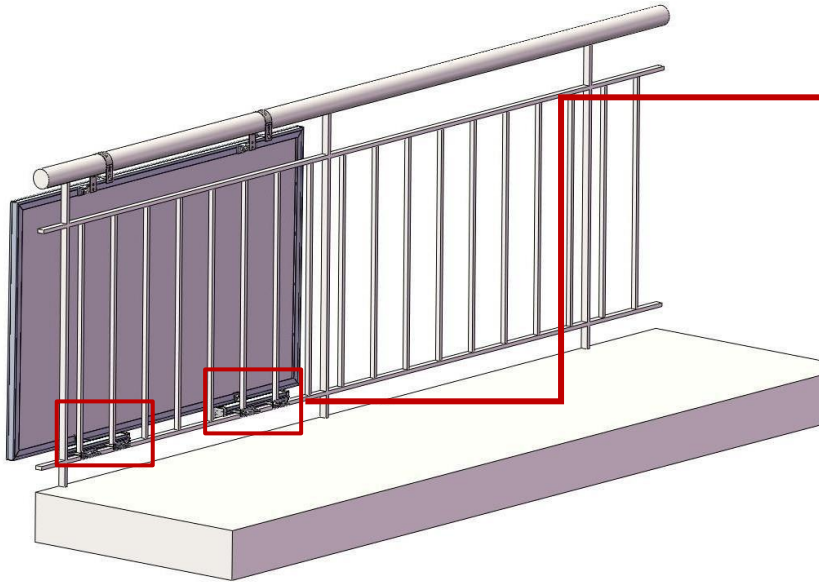
Tighten the screws in this step.

Use an additional rubber pad (F) between the hook and the balcony railing if the gap is loose.

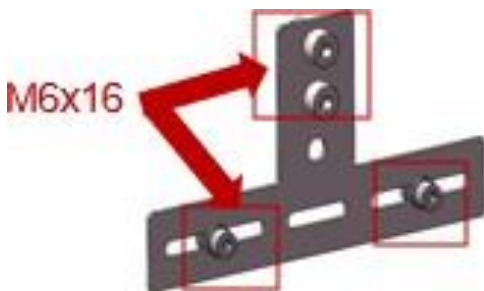


6.2.5 Fastening of the mounting rail C

Tighten the screws in this step.



5.2.6 Mounting the Inverter Kit



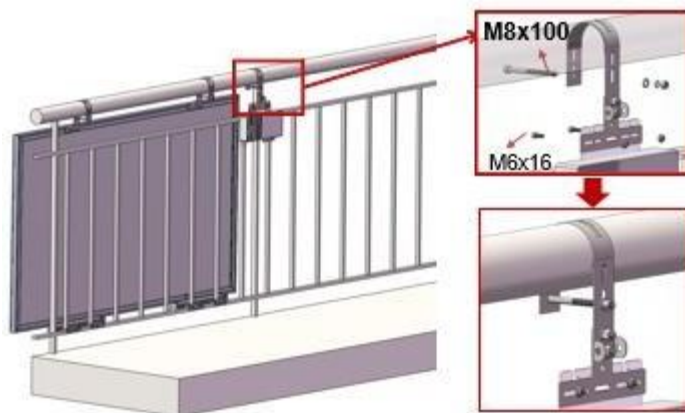
Before starting the assembly, please remove the pre-assembled screw M6x16 from the hook. Set them aside.

ATTENTION: The adapter plate is designed for NUASOL inverters. Inverters from other manufacturers may not be compatible.

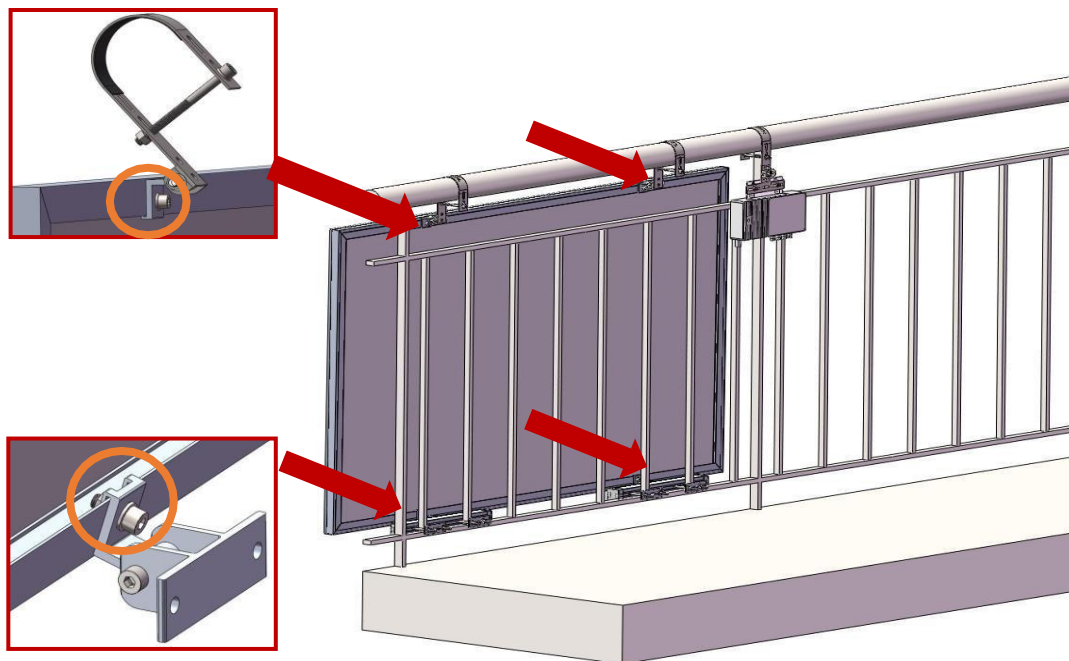


6.2.6 Mounting the inverter on the railing

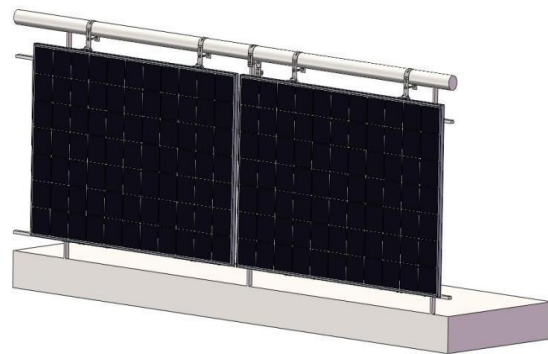
Hang the inverter kit on the balcony railing and tighten the M8x100 (S1) & M6x16 screw. Pay attention to the direction of hanging.



5.2.7 Tightening the screws



The assembly is now complete.





7. Tips for properly fastening the screws

Remarks: The specific dimensions of the technical system are taken from the design drawing. These instructions are only intended to explain the assembly methods of the product.

Precautions when installing

Stainless steel fasteners

Stainless steel has good ductility and is different from carbon steel. Improper use will result in the inability to loosen the nuts and bolts.

In order to avoid friction and subsequent blockage, please pay attention to the following:

- Make sure that the thread surface is clean (for example, no ash, debris);
- It is recommended to coat the surface of screws with water wax or lubricate them during installation. (engine oil)

Proper assembly:

- It must be screwed perpendicular to the threaded axis. Do not tilt.
- During the tightening process, the force must be uniform, and the tightening torque should not exceed the specified safe torque value.
- It is recommended to use a torque wrench or socket wrench. Avoid using an adjustable wrench or an electric screwdriver. If you need to use an electric screwdriver, you should try to reduce the speed.
- Avoid assembly at high temperatures, do not use fast rotation, rapid temperature rise will cause blockage of bolts and nuts.



8. Testing steps after assembly

It is necessary to check the condition of all components and parts according to Completion of the assembly to check. Please check:

- The system for damage
- whether all screws are tightened
- whether all solar modules are mounted accordingly
- Please clean the solar panel after mounting.

Warning: The installation must be checked for correctness before connecting the solar panel.

9. Maintenance

- Please check all screws once a year. Put them on when they have come off.
- Once a year, check all mechanical components (balcony hooks, module clamps, mounting rail) for fit and any visual changes.
- Clean the glass surface of the solar panels with distilled water if dirty. For example: in the spring after the pollen count or after rain.

ATTENTION: Optical abnormalities or scratches on the components, hooks, center/end terminals or the mounting rail are production-related and not defects and are not recognized as such. Possible abnormalities in the surface finish do not affect the safety or functionality of the overall system.



10. WARRANTY AND PRODUCT INFORMATION

What does this warranty cover and how long is it valid?

This limited warranty is provided by the **NuaSol** brand of **Canbolat Holding** and covers manufacturing and material defects in your product. To claim warranties, you must provide proof of purchase.

This limited warranty is transferable to subsequent owners, but only for the remainder of the warranty period. Subsequent owners must also provide the original proof of purchase, as described in "What kind of proof of purchase is required?".

What services does **NuaSol** offer?

During the warranty period, NuaSol will, at its option, repair the product (if commercially feasible) or replace the defective product at no cost, provided that you have **reported the product defect to NuaSol within the warranty period, and provided that** NuaSol confirms by inspection the existence of such a defect and such defect is covered by this Limited Warranty.

NuaSol uses new and/or refurbished parts at its sole discretion for warranted repairs and the construction of replacement products. **NuaSol** reserves the right to use parts or products in the original or improved design for repair or replacement. After **NuaSol** has repaired or replaced a product, the original warranty period will continue to be valid for the remainder of the warranty period or for 90 days from the date of return to the customer, whichever is longer. All replaced products and all parts removed from the repaired products become the property of **NuaSol**.

How do you get services?

If your product requires a fault or a guaranteed service, contact your dealer. If you are unable to contact your dealer or if the dealer is unable to provide the service, please contact **NuaSol** directly at:

NuaSol by Canbolat Holding

E-Mail: info@nuasol.de

Tel: 0931 9080 3000

What is not covered by this warranty?

Claims are limited to repair or replacement, or, if this is not possible at **NuaSol's** discretion, compensation will be limited to a maximum of the purchase price paid for the product. **NuaSol** will only be liable to you for any direct damage you have suffered and only up to a maximum amount equal to the purchase price of the product.

This limited warranty is not a guarantee of uninterrupted or error-free operation of the product or does not cover normal wear and tear of the product or costs associated with the removal, installation or troubleshooting of the customer's electrical equipment. This warranty does not apply to the following defects or damages, for which NEP assumes no responsibility:



- a) on the product if it has been misused, neglected, improperly installed, materially damaged or modified internally or externally, or it has been damaged due to improper use in an unsuitable environment;
- b) on the product if it has been exposed to fire, water, general corrosion, biological contamination or an input voltage that results in operating conditions beyond the maximum or minimum limits listed in the **NuaSol** product specifications, including a high input voltage generated by generators and lightning strikes;
- c) on the product, if it has not been approved by **NuaSol** or its authorized service centers (hereinafter referred to as "ASCs") has been repaired;
- d) on the product, if it is used as a component of a product whose warranty is expressly provided by another manufacturer;
- e) on the product, if the original markings for its identification (trademark, serial number) have been defaced, modified or removed;
- f) on the product if it is used outside the country in which it was purchased; and
- g) any consequential damage resulting from a loss of performance of the product, whether caused by a malfunction of the product, incorrect installation or incorrect use.

Product Disclaimer

THIS LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY NUASOL IN CONNECTION WITH YOUR **NUASOL** PRODUCT AND, TO THE FULLEST EXTENT PERMITTED BY LAW, SUPERSEDES **ALL OTHER WARRANTIES, CONDITIONS, REPRESENTATIONS, REPRESENTATIONS, OBLIGATIONS AND LIABILITIES, WHETHER EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, ARISING IN CONNECTION WITH** THE PRODUCT (WHETHER OR NOT LIMITED BY LAW). CONTRACT, WRONG, NEGLIGENCE, PRINCIPLES OF MANUFACTURER'S LIABILITY, BY OPERATION OF LAW, COURSE OF ACTION, OPINION OR OTHERWISE), INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OR CONDITION OF QUALITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE REQUIRED FOR THE PRODUCT TO THE EXTENT REQUIRED BY APPLICABLE LAW IS LIMITED TO THE PERIOD SET FORTH IN THIS LIMITED WARRANTY.

UNDER NO CIRCUMSTANCES SHALL **NUASOL** BE LIABLE FOR: (A) ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, LOSS OF REVENUE, LOSS OF SAVINGS OR OTHER COMMERCIAL OR ECONOMIC LOSS OF ANY KIND, EVEN IF NEP HAS BEEN ADVISED OF OR SHOULD HAVE KNOWN OF THE LIKELIHOOD OF SUCH DAMAGES, (B) ANY LIABILITY ARISING FROM TORTIOUS ACTION, WHETHER DUE TO NEGLIGENCE ON THE PART OF NEP, AS WELL AS FOR ANY LOSS OR DAMAGE TO PROPERTY, OR FOR PERSONAL INJURY OR ECONOMIC LOSS OR DAMAGE CAUSED BY CONNECTING A PRODUCT TO ANOTHER DEVICE OR SYSTEM, AND

(C) ANY DAMAGE OR INJURY CAUSED BY OR RESULTING FROM INCORRECT OR IMPROPER USE, OR RESULTING FROM INCORRECT INSTALLATION, INCORPORATION OR COMMISSIONING OF THE PRODUCT.

IF YOU ARE A CONSUMER (RATHER THAN A PURCHASER OF THE PRODUCT IN THE CONTEXT OF A BUSINESS TRANSACTION) AND HAVE PURCHASED THE PRODUCT IN A MEMBER COUNTRY OF THE EUROPEAN UNION, THIS LIMITED WARRANTY IS SUBJECT TO YOUR RIGHTS AS A CONSUMER UNDER EU DIRECTIVE 1999/44/EC ON CERTAIN ASPECTS OF THE SALE OF CONSUMER GOODS AND GUARANTEES IN ACCORDANCE WITH THE IMPLEMENTATION OF THIS DIRECTIVE IN THE EU MEMBER STATE, IN WHICH YOU PURCHASED THE PRODUCT. ALTHOUGH THIS LIMITED WARRANTY GIVES YOU CERTAIN LEGAL RIGHTS, YOU MAY HAVE OTHER LEGAL RIGHTS THAT MAY VARY BY EU MEMBER STATE, OR IF YOU DID NOT PURCHASE THE PRODUCT IN AN EU MEMBER STATE, YOU MAY HAVE RIGHTS DEPENDING ON THE COUNTRY AND JURISDICTION OF THE COUNTRY IN WHICH YOU PURCHASED THE PRODUCT.



11. Environmentally friendly disposal

Warning: Choking hazard! Packaging material is dangerous for children. Never let children play with packaging material.

15.1 Disposal and packaging


- The packaging of your device is made of materials that are necessary to guarantee effective protection during transport. These materials are fully recyclable, thus reducing the environmental impact. Dispose of the packaging in a bin for recyclable materials.

15.2 Disposal of old equipment

- Old appliances must be disposed of in accordance with the guidelines and regulations of local waste disposal. Contact your local administration about the address of the nearest recycling center and deliver your device there.



The symbol of the crossed-out rubbish bin on an old electrical or electronic appliance means that it must not be disposed of with household waste at the end of its service life. Collection points for waste electrical and electronic equipment are available in your area for free return. You can obtain the addresses from your city or local government. You can www.nuasol.com find out about other return options created by us on our website.

 The separate collection of waste electrical and electronic equipment is intended to facilitate the reuse, recycling or other forms of waste electrical and electronic equipment. recycling of old appliances, as well as avoiding the negative consequences of disposal on the environment and human health.

Note on battery disposal

The symbol of the crossed-out dustbin on batteries or accumulators means that they must not be disposed of with household waste at the end of their service life. If batteries or accumulators contain mercury (Hg), cadmium (Cd) or lead (Pb), you will find the respective chemical symbol below the symbol of the crossed-out trash can. You are legally obliged to return old batteries and accumulators after use. You can do this free of charge at the retail store or at another collection point near you. Addresses of suitable collection points can be obtained from your city or local government.

Our customer service number: Tel. +49 (0) 931 9080 3000

Fax: +49 (0) 931 4523 2799 / E-Mail: info@nuasol.com

NuaSol by Canbolat Vertriebs GmbH • Gneisenaustraße 10-11 • 97074 Würzburg Return

address can be found in the imprint: <https://www.nuasol.com/impressum>

Sales tax identification number: DE 263752326

The court of entry in the commercial register is Würzburg, HRB

10082 WEEE-Reg.-Nr. DE 61617071

