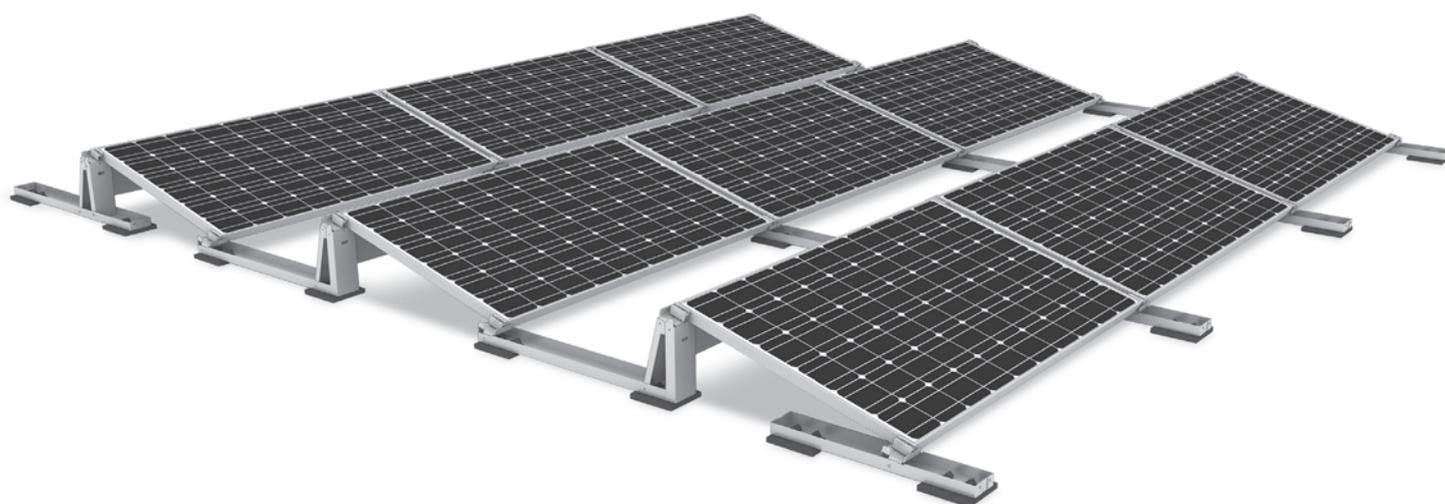


Mounting systems for solar technology



ASSEMBLY INSTRUCTIONS
S-ROCK 15° SYSTEM

GB

GENERAL SAFETY INFORMATION

Please note that our general mounting instructions must be followed at all times and can be viewed online at www.k2-systems.com/en/downloads/product-information.html.

The following guidelines apply:

- The equipment may only be installed and operated by qualified and adequately trained installers.
- Prior to installation, ensure that the product complies with on-site static loading requirements. For roof-mounted systems, the roof load-bearing capacity must always be checked.
- National and local building regulations and environmental requirements must be adhered to.
- Compliance with health and safety regulations, accident prevention guidelines and applicable standards is required.
 - Protective equipment such as safety helmet, boots and gloves must be worn.
 - Roofing works must be in accordance with roofing regulations utilising fall protection safeguards when eaves height exceeds 3 m.
 - At least two people must be present for the duration of the installation work in order to provide rapid assistance in the event of an emergency.
- K2 mounting systems are continuously developed and improved and the installation process may thereby change at any time. Prior to installation consult our website at www.k2-systems.com/downloads/produktinformationen.html for up-to-date instructions. We can send you the latest version on request.
- The assembly instructions of the module manufacturer must be adhered to.
- Equipotential bonding/grounding/earthing between individual parts is to be performed according to country specific standards, as well as national laws and regulations.
- At least one copy of the assembly instructions should be available on site throughout the duration of the installation.
- Failure to adhere to our general safety and assembly instructions and not using all system components, K2 is not liable for any resulting defects or damages. We do not accept liability for any damage resulting in the use of competitor's parts. Warranty is excluded in such cases.
- If all safety instructions are adhered to and the system is correctly installed, there is a product warranty entitlement of 12 years.
- We strongly recommend reviewing our terms of guarantee, which can be viewed at www.k2-systems.com/en/downloads/product-information.html. We will also send this information on request.
- Dismantling of the system is performed in reverse order to the assembly.
- K2 stainless steel components are available in different corrosion resistance classes. Each structure or component must be carefully checked for possible corrosion exposure.

GENERAL INSTRUCTIONS

The following guidelines apply. The General Assembly instructions must be observed. These can be found at: <http://www.k2-systems.uk.com/downloads/product-information.html>. The access data for our customers is available on request at +49 7159 42059-0

The S-Rock 15° system can be installed under the following conditions. In special cases, if the given values are exceeded, statics are subject to additional charges. Please clarify in advance whether the manufacturer authorises clamping on the short side. For the module list, please contact your account manager or www.k2-systems.uk.com.



Roof requirements

- This system can be used on all established flat roof constructions with a pressure resistant substrate and a roof pitch of up to 5°. External influences that act on this system are only reflected in the design of the ballast to a limited degree. For instance, unevenness, thermal elongation, moss, water accumulation and ageing of the sheeting cannot be considered, although these factors might also precipitate system displacement under certain circumstances. We recommend you check whether the system requires additional mechanical attachment, as the impact of these influences may be greater on slanted roofs. The inclination of the S-Rock system is 15°.
- The roof surface must be clean and dry. Roof irregularities must be corrected or removed where appropriate.



Static requirements

- Sufficient roof structure load-bearing capacity, as well as insulation pressure capacity
- For framed modules with a frame height of 27-50 mm
- Permissible module dimensions: length (1,638-1,685 mm), width (982-1,001 mm), flange width at the module frame base (up to 50 mm)



Important installation instructions!

- On-site general standards and regulations for lightning protection must be observed and consultation with a specialist to create a lightning protection concept is recommended (use lightning protection clamp if necessary).
- At least two rows with three connected modules each, must be installed in order to use this system.
- When planning the system, a maximum block size of 8 x 8 modules should not be exceeded.
- Tightening torque of 14 Nm for all module clamps.
- In the event of exceptional circumstances (such as storms, heavy rain, earthquakes, etc.), the system should be checked by a specialist. Should an inspection find damage or plastic deformation (such as in the module clamp area) the components must be replaced.
- Adhere to module manufacturer recommendations for clamping area and module installation (see module manufacturer instructions). Check whether manufacturer approval is available for corner clamping.
- Compatibility of building protection mats with roof covering must be checked.

AT A GLANCE: RECOMMENDED TOOLS

K2 Mounting Systems are optimized for an effortless assembly. The recommended tools are not included in the scope of supply.



T-Schlüssel
Allen key 6 mm



Cordless screwdriver
Socket (wrench size 7 mm)



Torque wrench
wrench size 6 mm



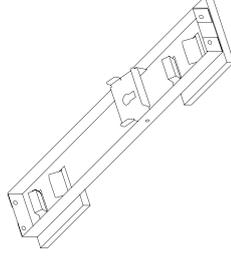
Chalk line



Tape measure

PRODUCT

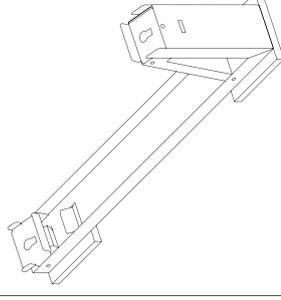
1.1



2002245

S-ROCK FRONT 15
(Aluminium)

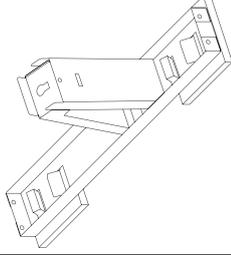
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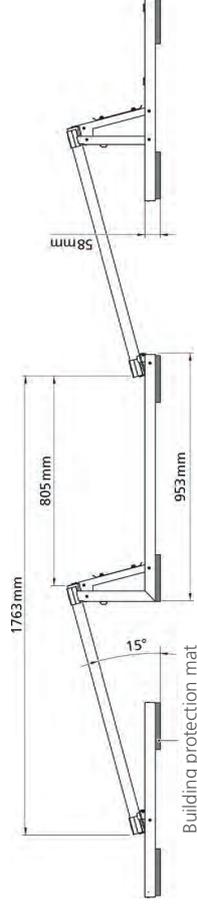
S-ROCK 15
(Aluminium)

1.3



2002246

S-ROCK END 15
(Aluminium)



S-ROCK 15° SYSTEM COMPONENTS

1.1 S-Rock front 15 (Aluminium)

See page 5

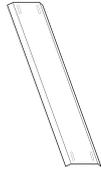
1.2 S-Rock 15 (Aluminium)

See page 5

1.3 S-Rock end 15 (Aluminium)

See page 5

2 2002247



S-Rock Windbreaker 15
(Aluminium)

1005207



Self-tapping screw with sealing washer
(Stainless steel)

2001740



Building protection mats
PUR-bonded rubber granules
alternatively: 2001739
(aluminium laminated)

5 MiniClamp EC Set

(Aluminium/stainless steel)

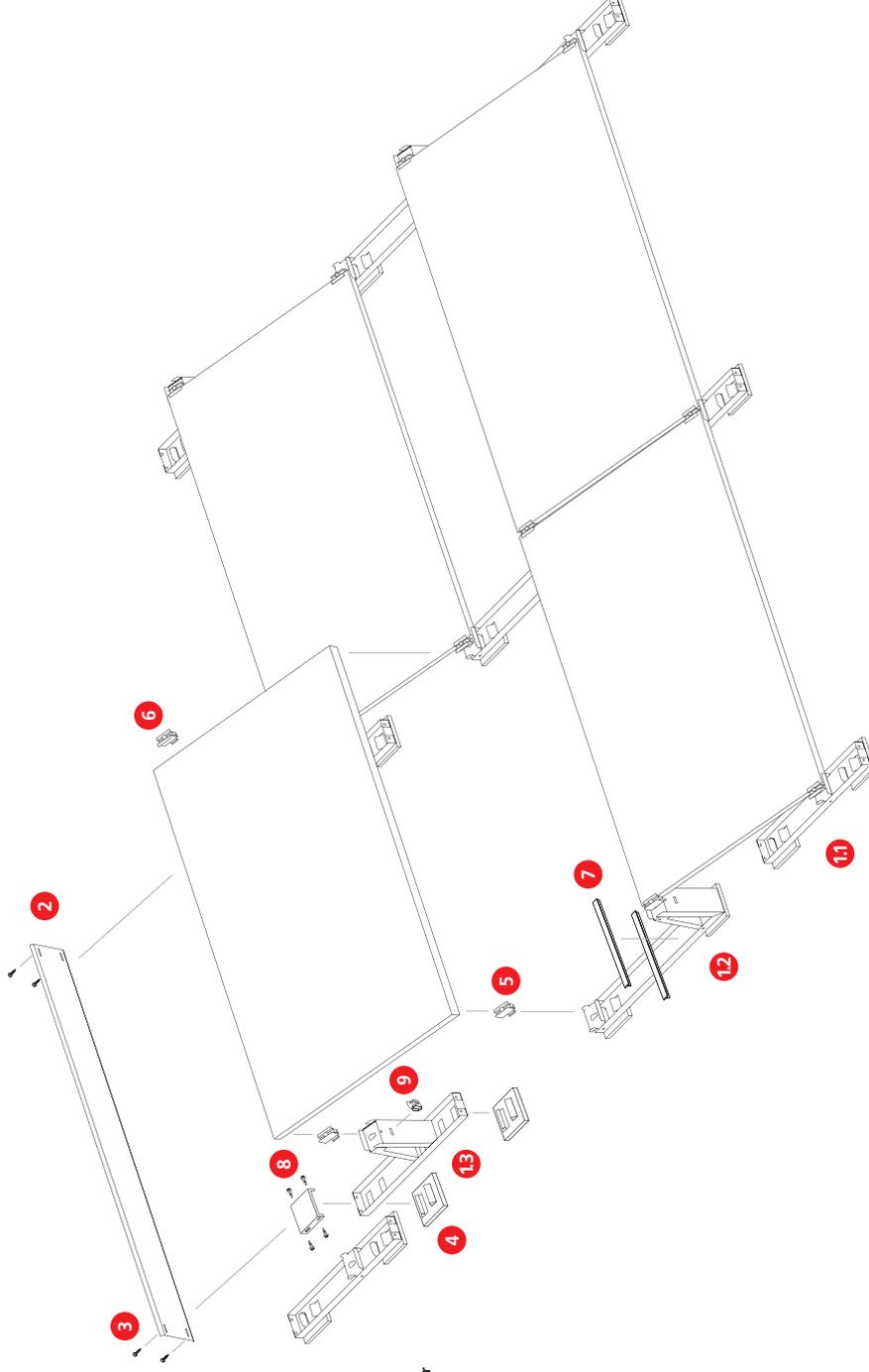


MiniClamp 27-35 mm EC set

(2002348)

MiniClamp 34-50 mm EC set

(2000059)



6 MiniClamp MC set

(Aluminium/stainless steel)



MiniClamp 27-35 mm MC set

(2002347)

MiniClamp 34-50 mm MC set

(1006413)

7 Optional: 2002331



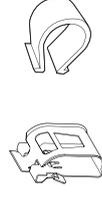
S-Rock T-Tray set
(Aluminium)

8 Optional: 2002295



S-Rock connector set
(Aluminium/stainless steel)

2002322



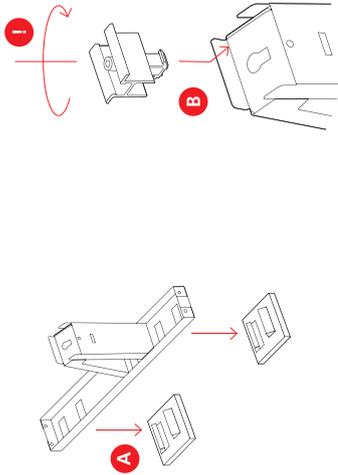
Cable Routing Clip

(coated spring steel)

Alternatively: Omega Kabel-Clip
1005394 (Polypropylene)

1
of 6

PRE-ASSEMBLE S-ROCK



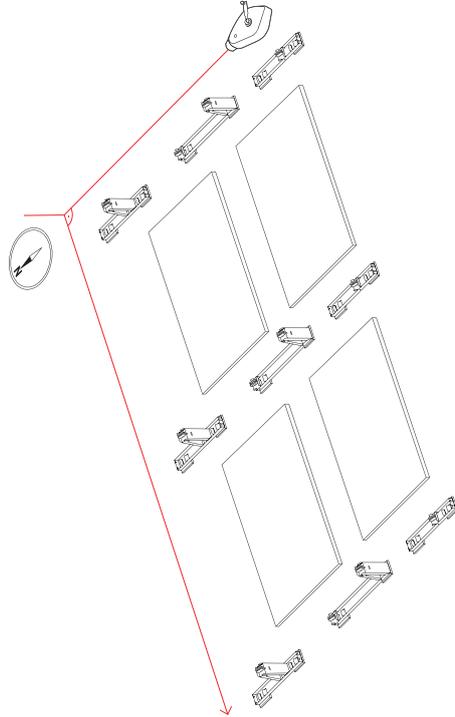
- A** Use the protrusions in the building protection mats to fix under the S-Rock.
- B** Insert MiniClamp end clamp and middle clamp sets each in the opening of the „key-hole slot“.
- !** Rotate 90°.

2
of 6

LAYOUT ON THE ROOF

- A** Arrange all pre-assembled S-Rock components as follows:
 - Measure two edges at right angles to each other, e.g. follow the 3-4-5 rule: east or west and north or south
 - Stretch cord or mark with the chalk line
 - Arrange assembled S-Rock components in appropriate distances on the roof
 - Align the first row to the line

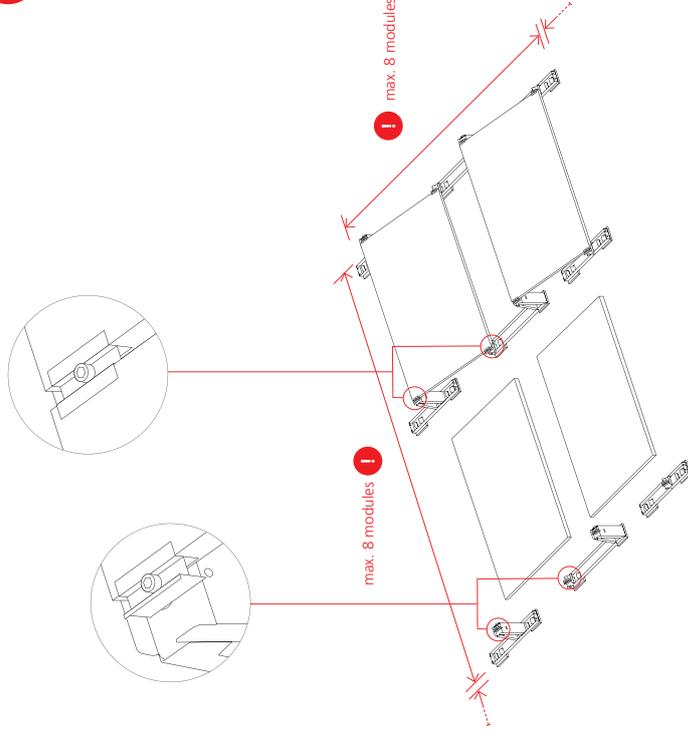
- B** On the first row build components to the modules with distributed components from the opposite side.
- C** Fit all components to the measured edges.



3
of 6

PLACE AND SECURE MODULES

- A** Secure modules at the end of a row with a MiniClamp end clamp set.
- B** Place clamps on the module frames and fix into the lower part of the slot until approx. flush. Torque 14 Nm.
- !** Ensure that the clamps sit flush on the module frame surface and the bottom clamp piece fits into the keyhole section.
- C** Use the MiniClamp middle clamp set between two modules.



D Thermal separation
A thermal separation is necessary after 8 modules in a row (in both module lengthwise and transverse directions). A new module array must be started with an S-Rock component.

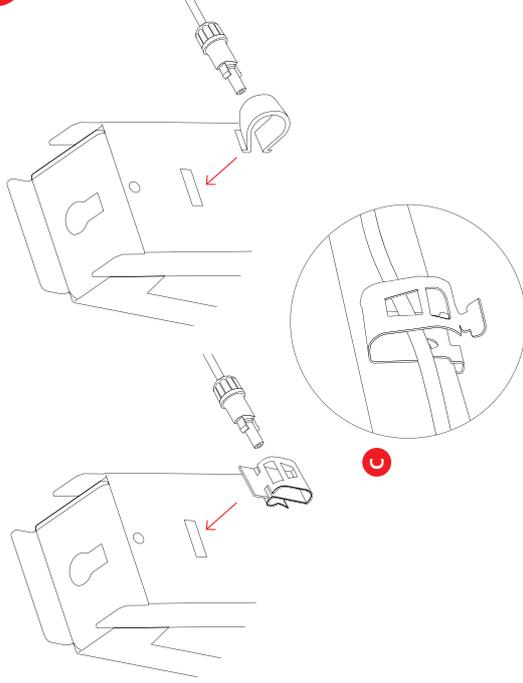
- !** Start the next row from the beginning of the reference line.
- !** Always mount modules flush without gaps.
- !** Check for loose clamps.

S-ROCK 15° SYSTEM ASSEMBLY

4
of 7

CABLE MANAGEMENT – OPTIONAL

- A** Fasten the module cable with the Cable Routing clip to the S-Rock front so that the wider opening points upwards. Alternatively the Omega clip may be used.
- B** Slightly bend the opening and insert the connected module cable.
- C** If the module cable is too short to be clamped to the S-Rock, the Cable Routing clip may also be clamped on the inside of most module frames.



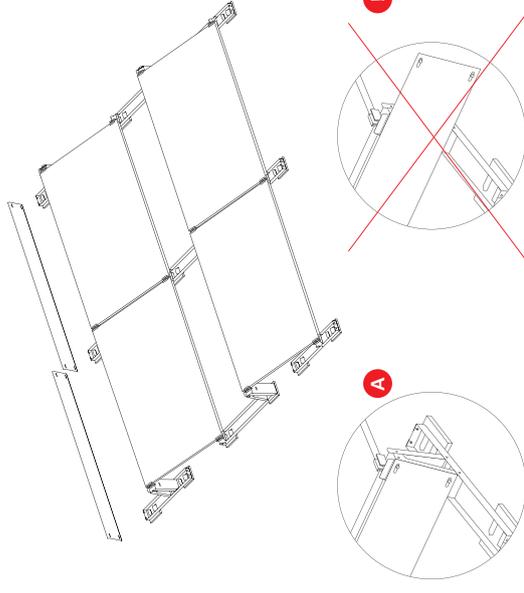
S-ROCK 15° SYSTEM ASSEMBLY

Position ballast under the module before fitting the windbreaker at the northern and southern edges of the module array.

6
of 7

INSTALLING THE WINDBREAKER

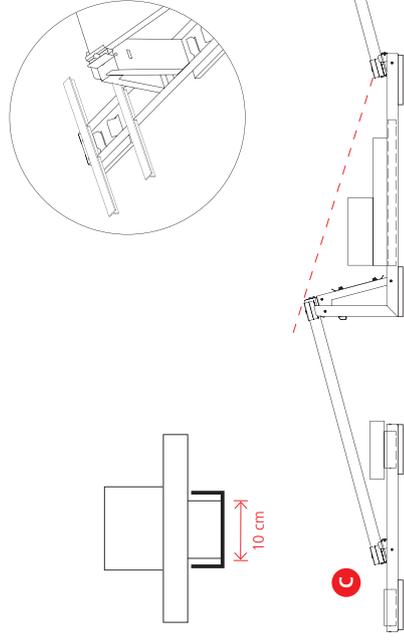
- A** With self-tapping screws drill through oblong holes in the pre-drilled holes on the rear side of the S-Rock until approx. flush. Beginning on the right then left, align and then tighten at least one screw.
- !** If two windbreakers overlap, fasten one screw through both oblong holes in order to fix to the S-Rock.
- !** Ensure the windbreaker does not extend beyond the end of the row.



7
of 7

BALLAST SYSTEM

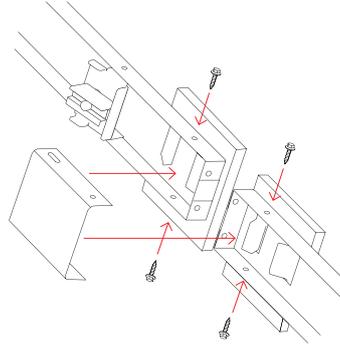
- A** Place ballast (max. 10 cm wide) directly in the S-Rock ballast tray and lay larger slabs on top.
- B** For ballast per S-Rock > 68 kg S-Rock end > 74 kg S-Rock front > 12 kg use T-Tray set. Depending on ballast size insert T-trays with appropriate spacing into the components and distribute ballast evenly in order to prevent tipping.
- C** Insert at least 7 kg of ballast into the S-Rock front.
- !** Avoid stacking ballast so high that it results in shading!



5
of 7

ASSEMBLE S-ROCK CONNECTOR SET – OPTIONAL

- A** Depending on specifications, individual modules can be connected to each other with the S-Rock Connector set.
- B** Place the S-Rock connector on the end section of the S-Rock 15 front and the S-Rock 15 end.
- C** From the outside working in, drill in the existing holes of the S-Rock component with self-tapping screws.
- !** Ensure that the screws fit correctly within the oblong holes.





Ready!

- A** Visual check: Ensure that the module clamps and screws fit correctly in the right location.
- !** Do not leave the system overnight without a windbreaker or necessary ballast.

Ready!

THANK YOU FOR CHOOSING A K2 MOUNTING SYSTEM.

Systems from K2 Systems are quick and easy to install. We hope these instructions have helped. Please contact us if you have any questions or suggestions for improvements.

All contact details can be found at:
<http://www.k2-systems.uk.com/contact.html>

Service Hotline: +49 (0)7159 42059-0

German law shall apply excluding the UN Convention on CISG. Place of venue is Stuttgart. Our General Terms of Business apply. Please refer to <http://www.k2-systems.com/en/gsc.html>.

TESTED QUALITY – MULTIPLE CERTIFICATIONS

K2 Systems stands for secure connection, highest quality and precision. Our customers and business partners have known that for a long time. Independent institutes have tested, confirmed and certified our capabilities and components.

Please refer to <http://www.k2-systems.uk.com/downloads/certificates.html> to download our quality and product certificates.



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