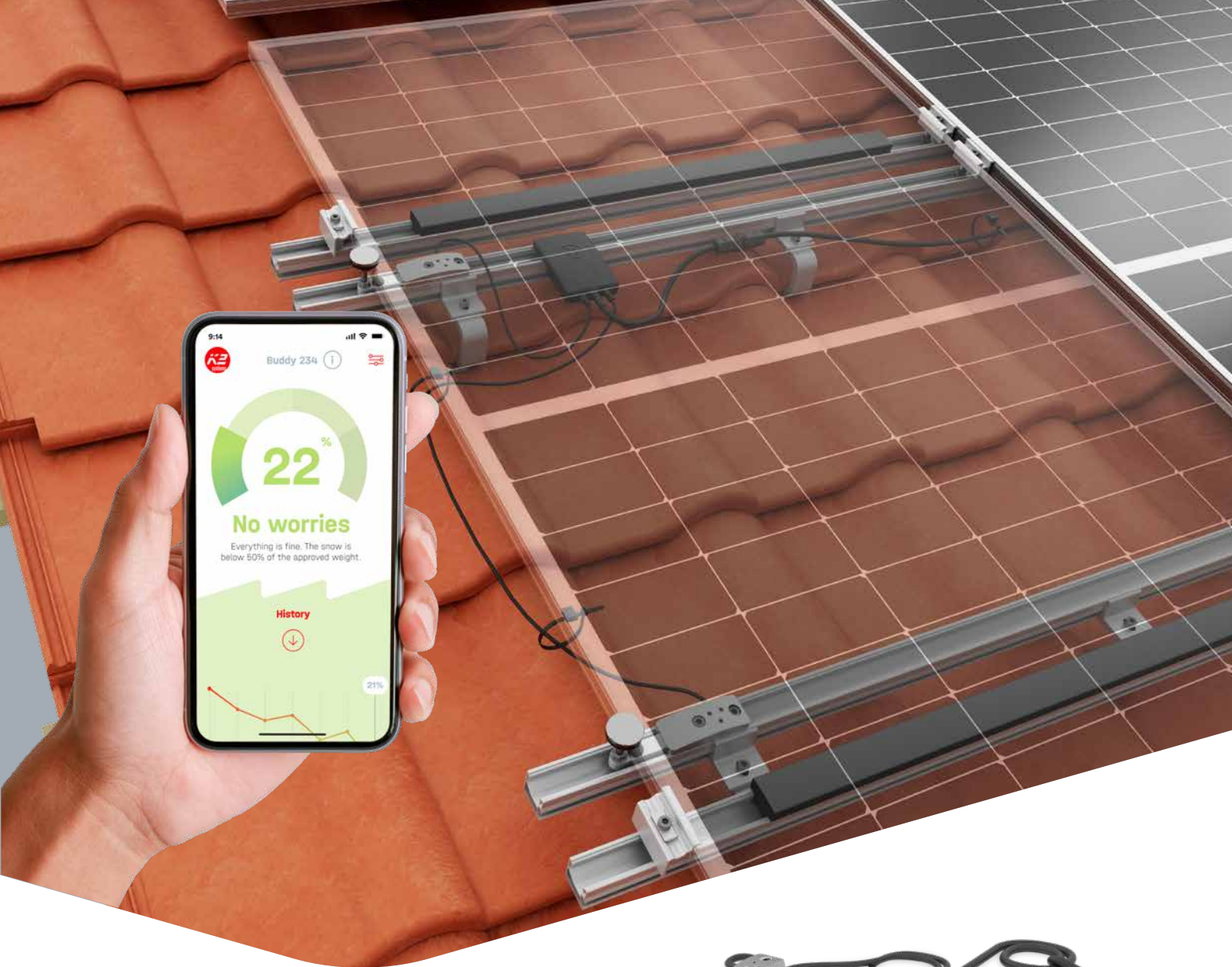




Assembly instructions



K2 Buddy TopBox

SingleRail systems on clay or concrete tiles



Connecting Strength

k2-systems.com

Content

• Tool overview	3
• General safety information	4
• The following generally applies	5
· Planning with K2 Base	5
· Requirements for the roof	5
· Important assembly instructions	5
• Components	6
• Assembly	7
· Preparation	7
· Attaching SingleRail as module bracing	7
· Insertion EPDM support	9
· Positioning of snow sensors	9
· Insert TopBox and record sensor values	10
· Cable management	10
· Positioning measuring module	12
• Notes	14

Tested quality - multiple certifications

K2 Systems stands for secure connections, top quality and maximum precision. Our customers and business partners have known this for a long time. Independent bodies have tested, verified and certified our competencies and components.

You can find our quality and product certificates at k2-systems.com.

Tool overview



5 + 6 mm



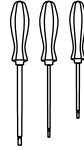
8 mm



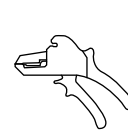
6 - 30 Nm
(4.5 - 22.2 lb-ft)



6 mm



Electronics and precision
mechanics screwdriver (PH 0)



Standard electrician's tools

General safety information

Please note that our general mounting instructions must be followed at all times and can be viewed online at k2-systems.com.

- 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 k2-systems.com 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.
- During the entire installation period, it must be ensured that at least one copy of the assembly instructions is available at the construction site. Furthermore, special product and warning notices apply to the K2 Buddy, which must be observed by both the installer and the end customer. They can be found at: k2-systems.com/en/digital-services/k2-buddy/product-warning-notice/
- 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.
- German law shall apply excluding the UN Convention on CISG. Place of venue is Stuttgart. Our General Terms of Business apply.
- If all safety instructions are followed and the system is installed properly, the product warranty for the mounting system installed with the K2 Buddy is 20 years! The K2 Buddy components themselves are excluded. Please note our warranty conditions, which can be viewed at k2-systems.com. We will be happy to send you a copy 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.

The following generally applies



Under the following conditions, the K2 Buddy can be installed together with the SingleRail systems and SingleHook 3S. These assembly instructions only apply together with the associated installation and operating instructions for the TopBox and BaseBox at

k2-systems.com/buddy-manual.

There you will find important safety instructions that must be followed. Even if the system meets higher requirements due to the inclusion of safety factors, please consult your contact at K2 Systems if the specified values are exceeded.



Planning with K2 Base

We recommend our free online software K2 Base for the design. In five steps, you plan the right mounting system and receive a construction recommendation, parts list and structural analysis report.

Simply log in and get started with your planning: base.k2-systems.com



Requirements for the roof

- Sufficient holding force of the roof covering on the supporting or substructure
- Roof pitch: 15 - 45°
- Rafter spacing 0.55 - 1.20 m
- Sufficient load-bearing reserves to support the PV system.



Important assembly 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).
- Please refer to our Handbook "Wood Screw Fixation of K2 Roof Hooks" for the installation of all roof hooks
k2-systems.com/en/handbook-roof-hooks
- We recommend a thermal separation after maximum of 17.6 m.
- A minimum mounting distance of 50 mm from the end of the rail / rail joint to the module frame.
- Tightening torque for all module clamps 16 Nm

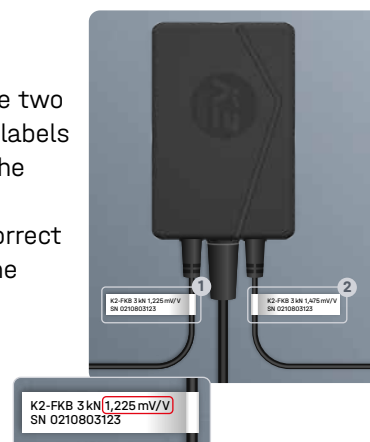
- For manufacturer information regarding clamps see the manufacturing module data sheet.
- In order to avoid damage under high snow loads, replace the clay/concrete roof tile with metal roof plate or sheet metal replacement tile under the bracket of the roof hook (exception SingleHook 2).
- Do not step on roof hooks or rails, as these are not climbing assists.
- Sizing and positioning of the wood screws are subject to the relevant regulations.
- In the case of pressure-soft rooftop insulation, especially that made of mineral fibres, care must be taken to ensure a suitable spacer screw connection of the counter batten to the rafter.
- The following applies to all insulation materials: With counter-batten thicknesses greater than 40 mm, the roof hooks can also be fastened exclusively into the counter-batten if it is sufficiently shear- and pressure-resistant.



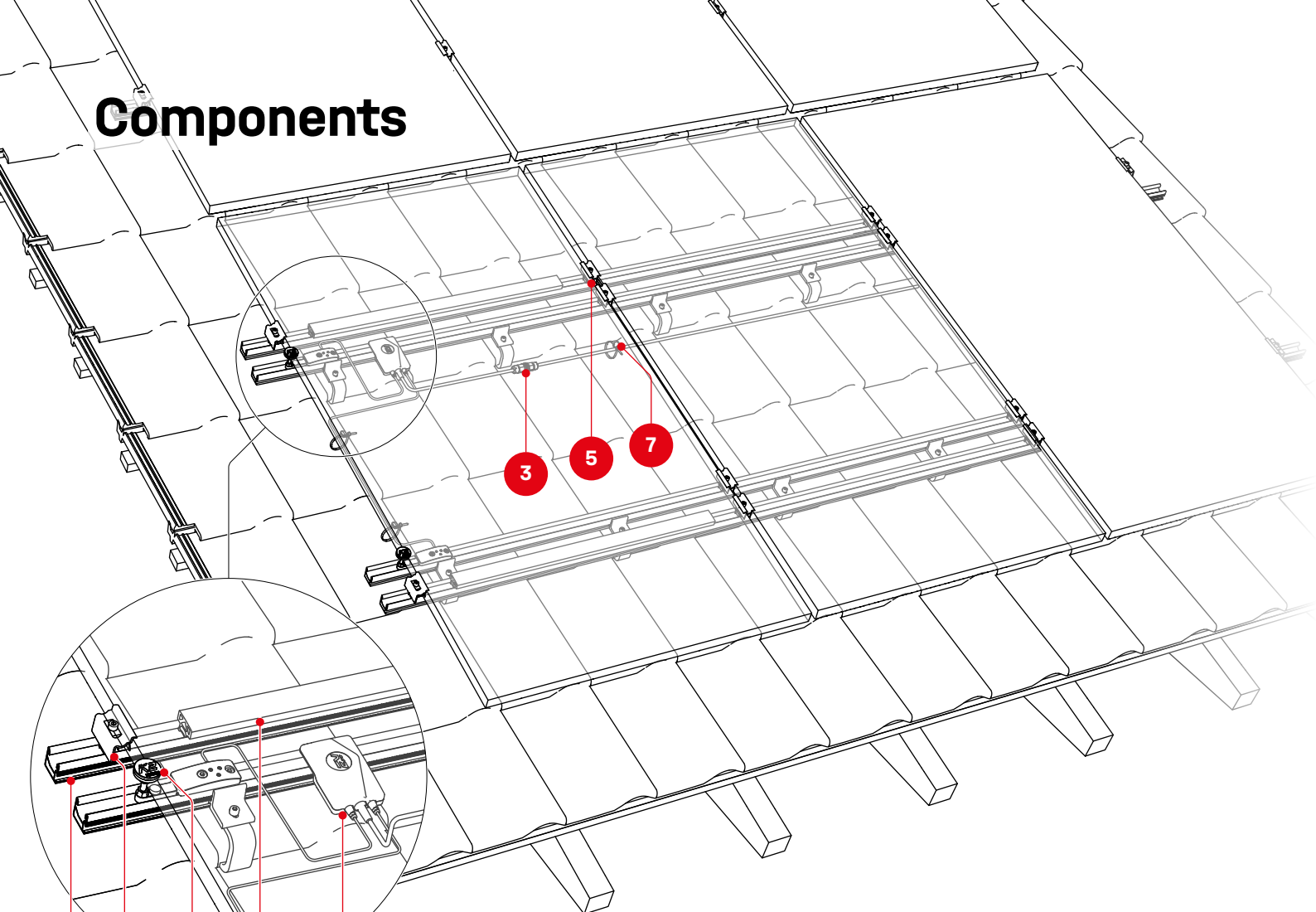
Sensitivity values for snow scales

Please make a note of the two **sensitivity values** on the labels of the narrow cables to the sensors.

You will need these for correct project maintenance in the K2 Buddy app.

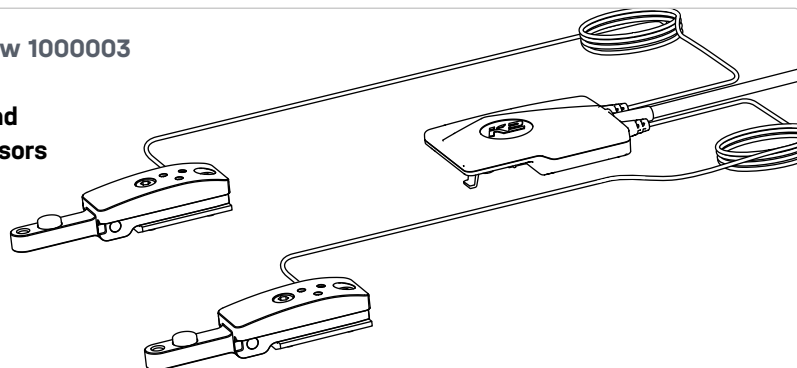


Components

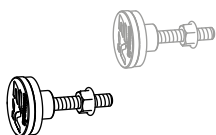


Top Box Set Snow 1000003

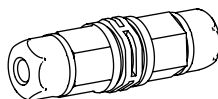
- 1** TopBox and snow sensors



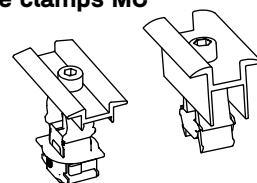
- 2** Knurled screw and nut



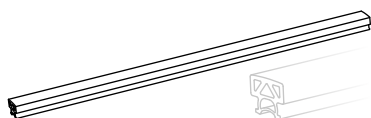
- 3** Cable sleeve



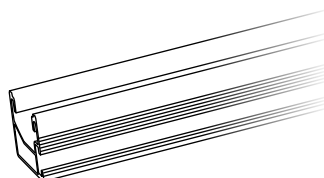
- 4** Item no. project specific!
4x module clamps MC



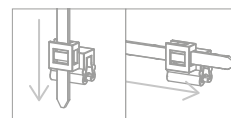
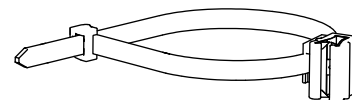
- 5** 2002067
EPDM module bracing



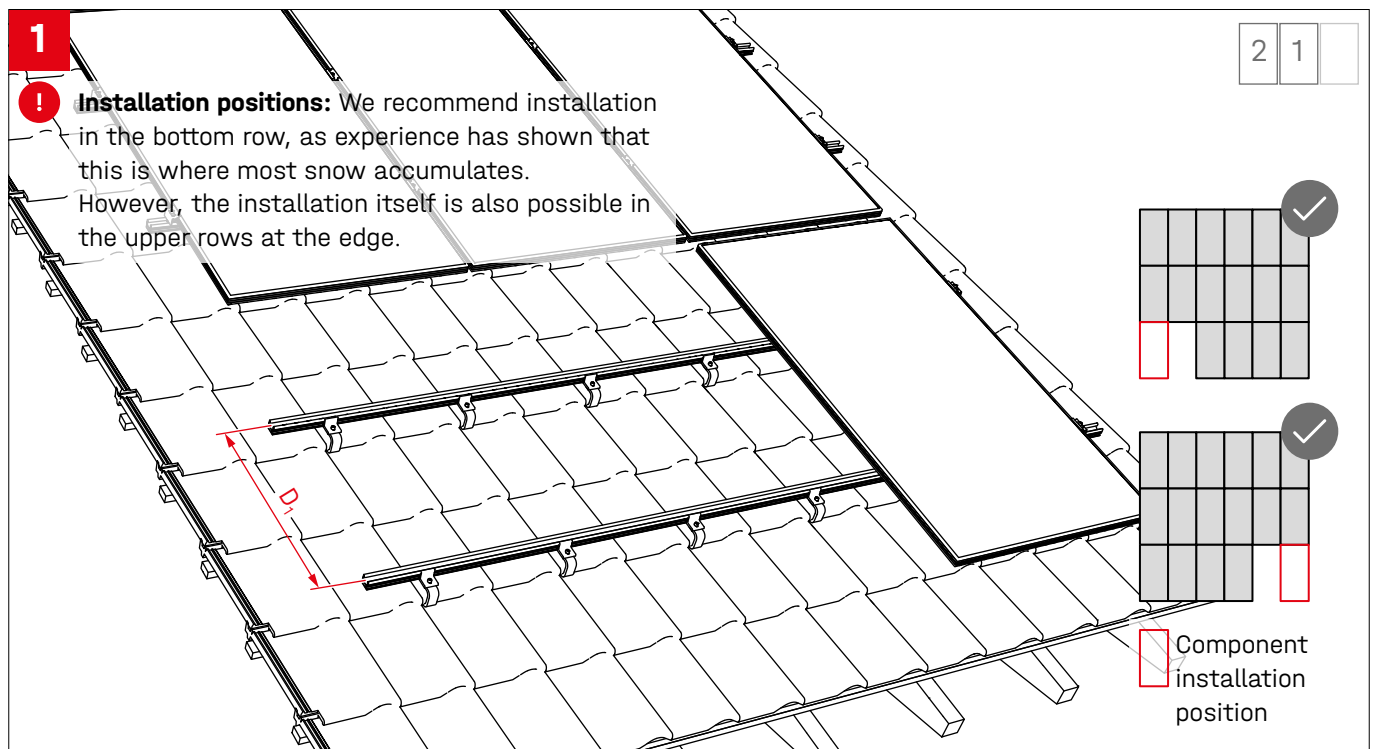
- 6** Item no. project specific!
SingleRail 36/50



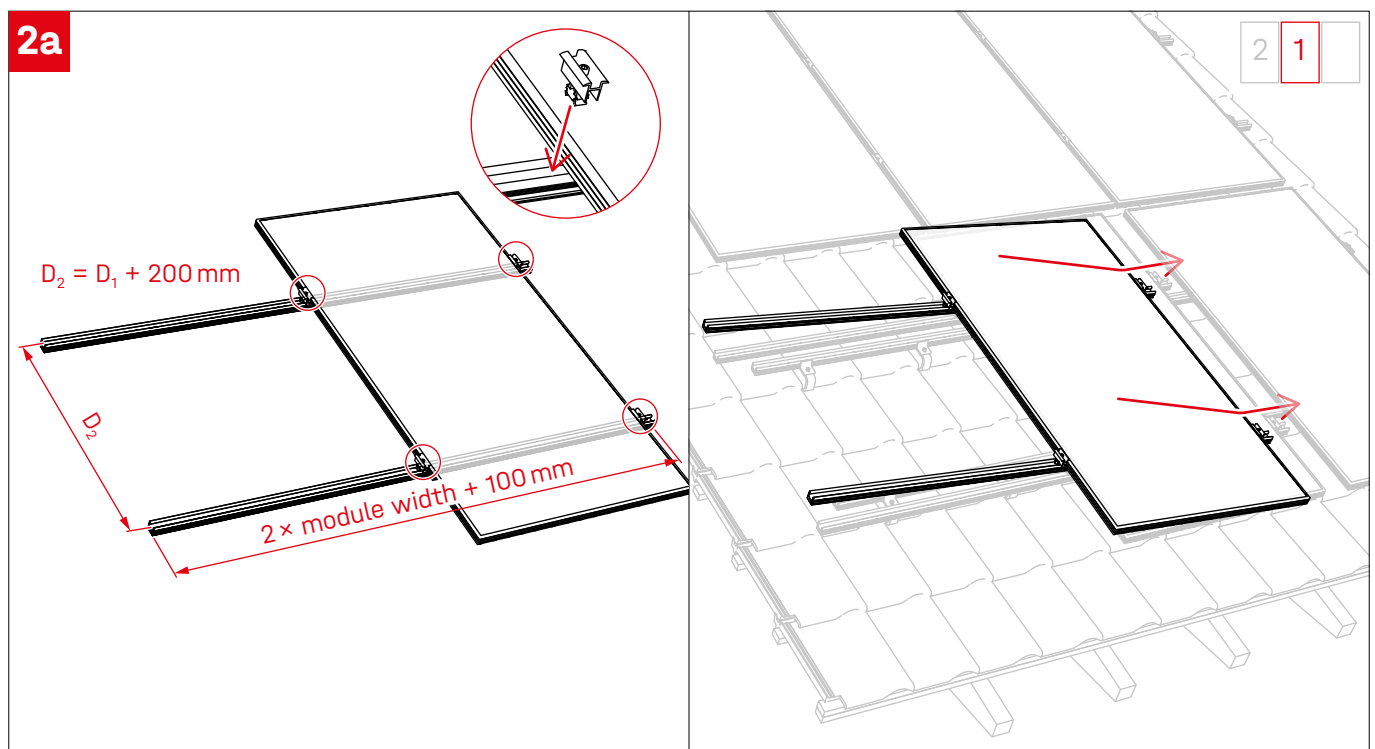
- 7** Suggestion: 4x 2002870
Cable-Manager

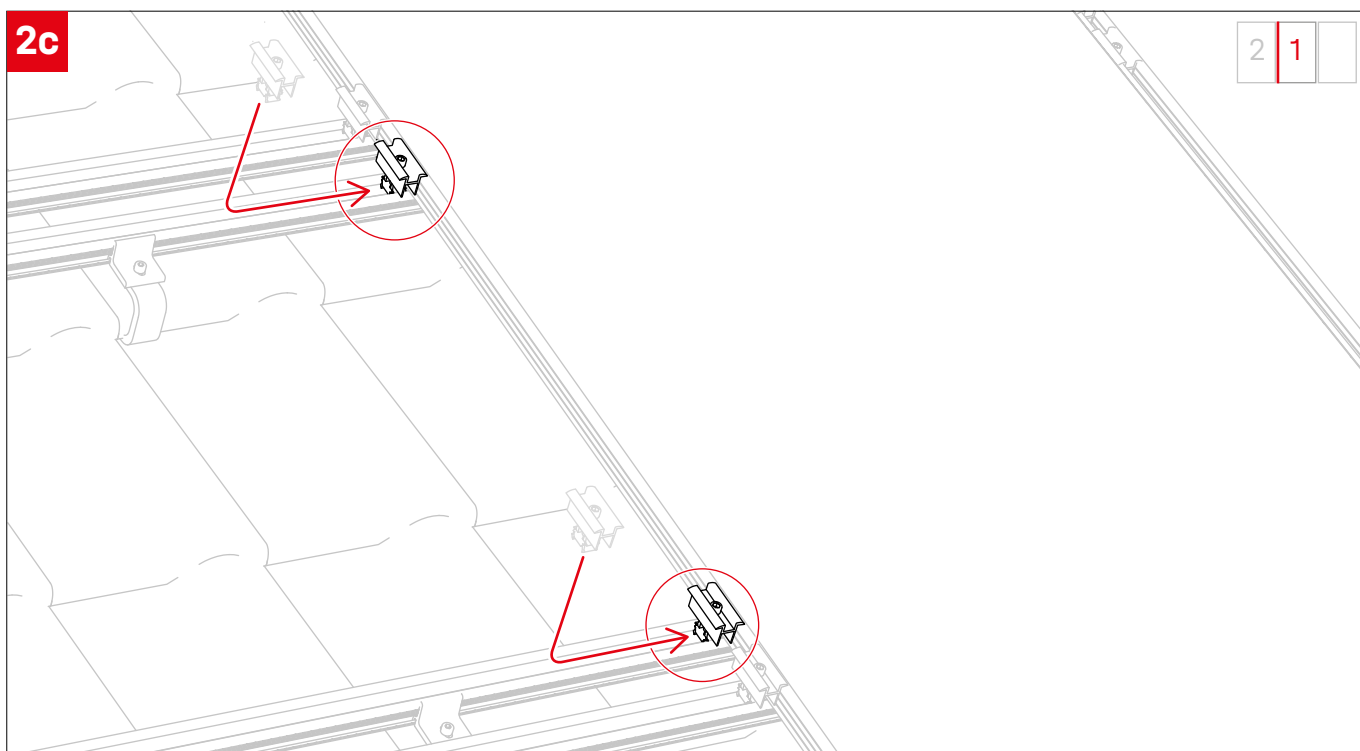
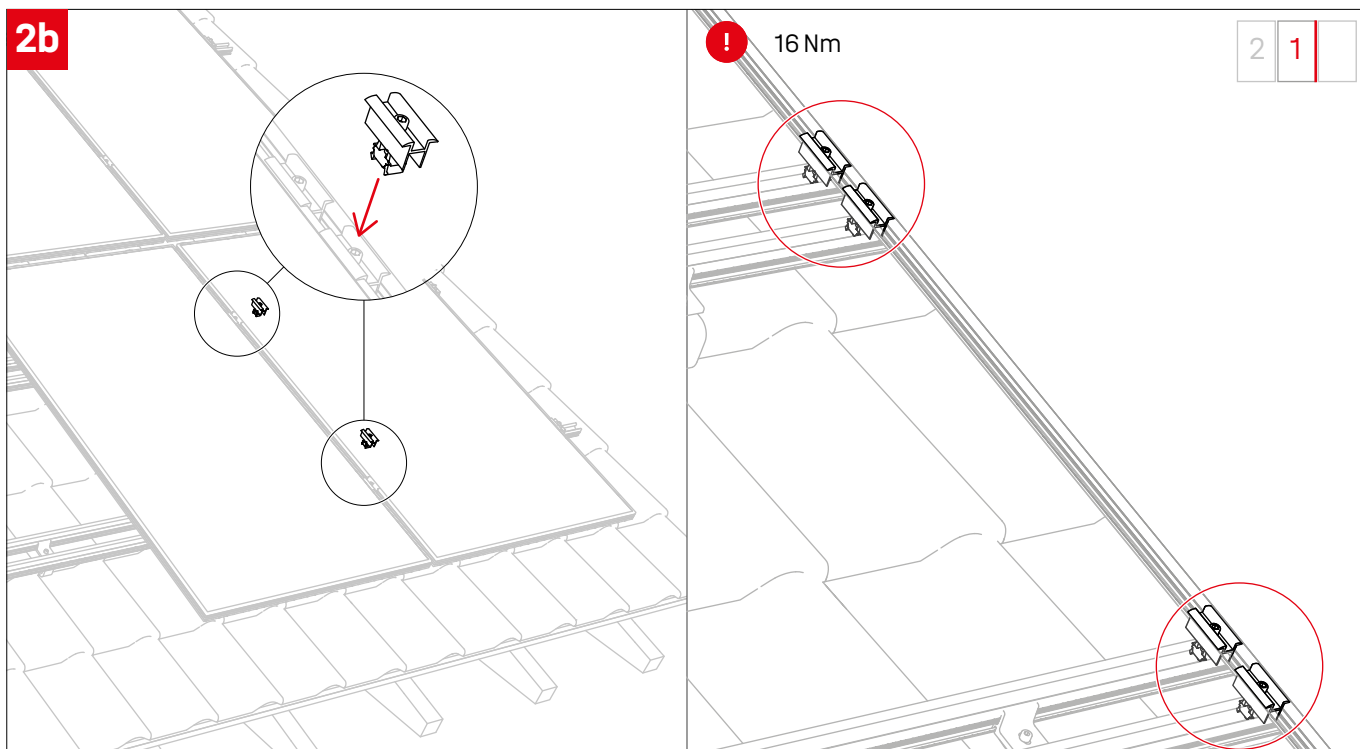


Preparation

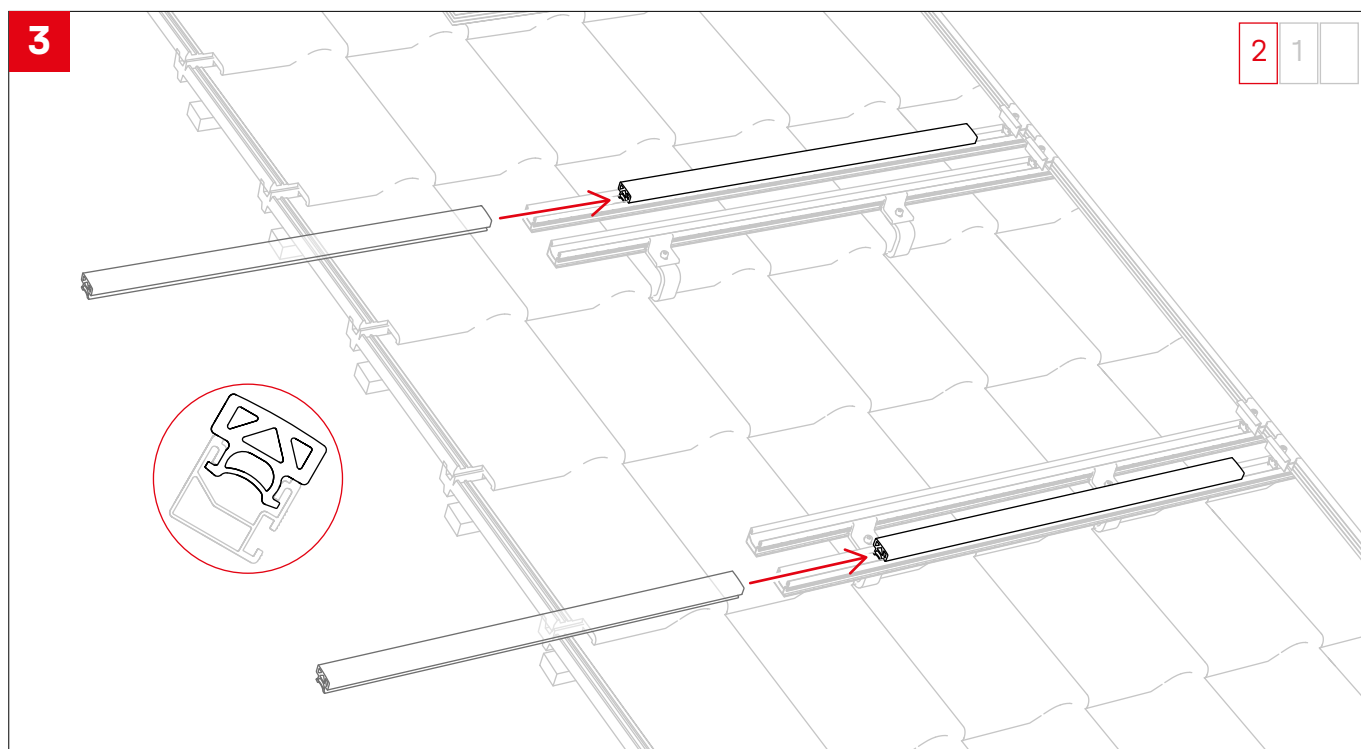


Attaching SingleRail as module bracing

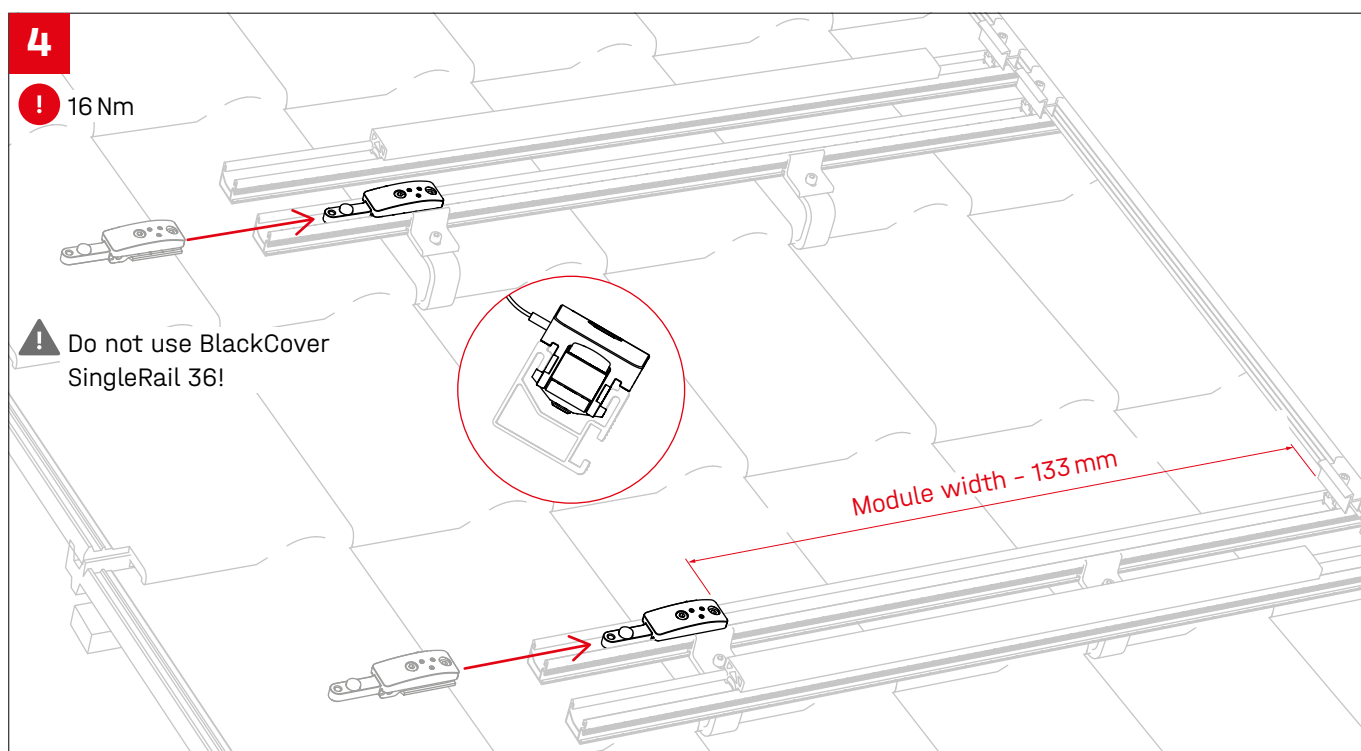




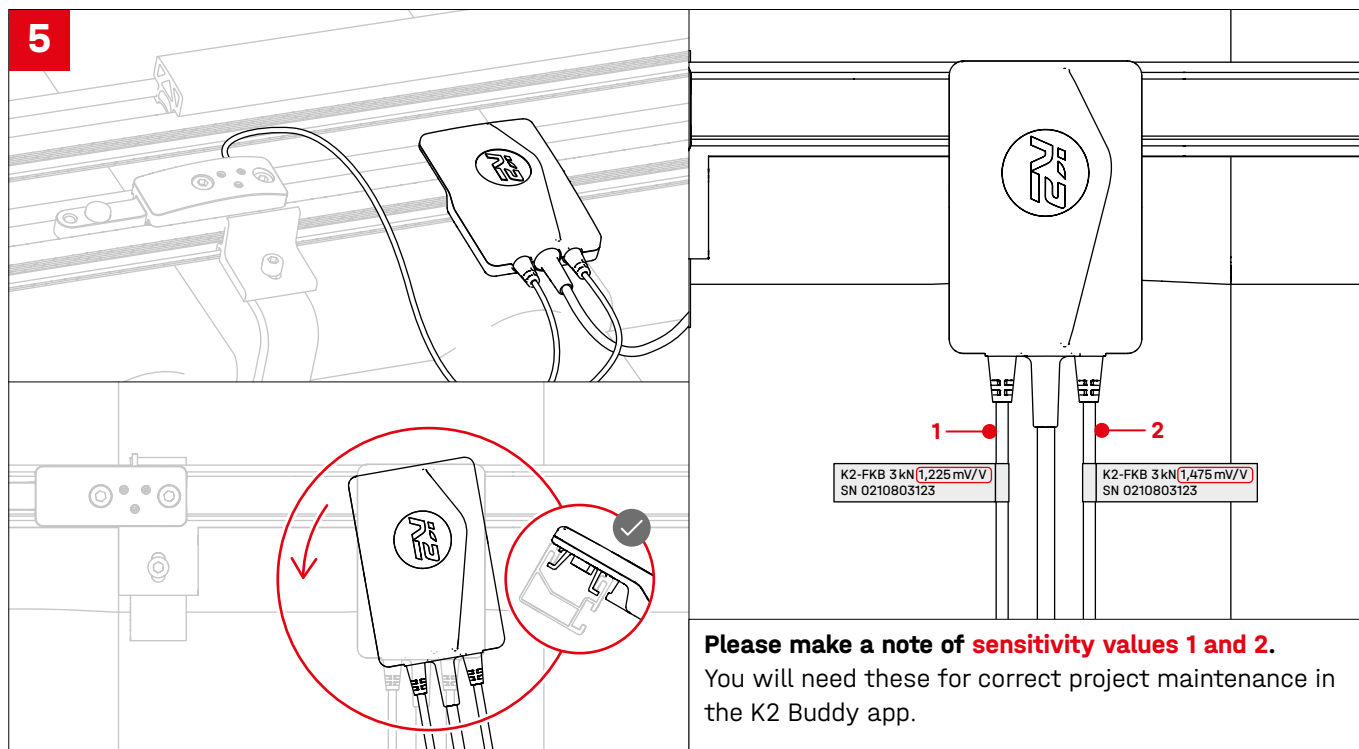
Insertion EPDM support



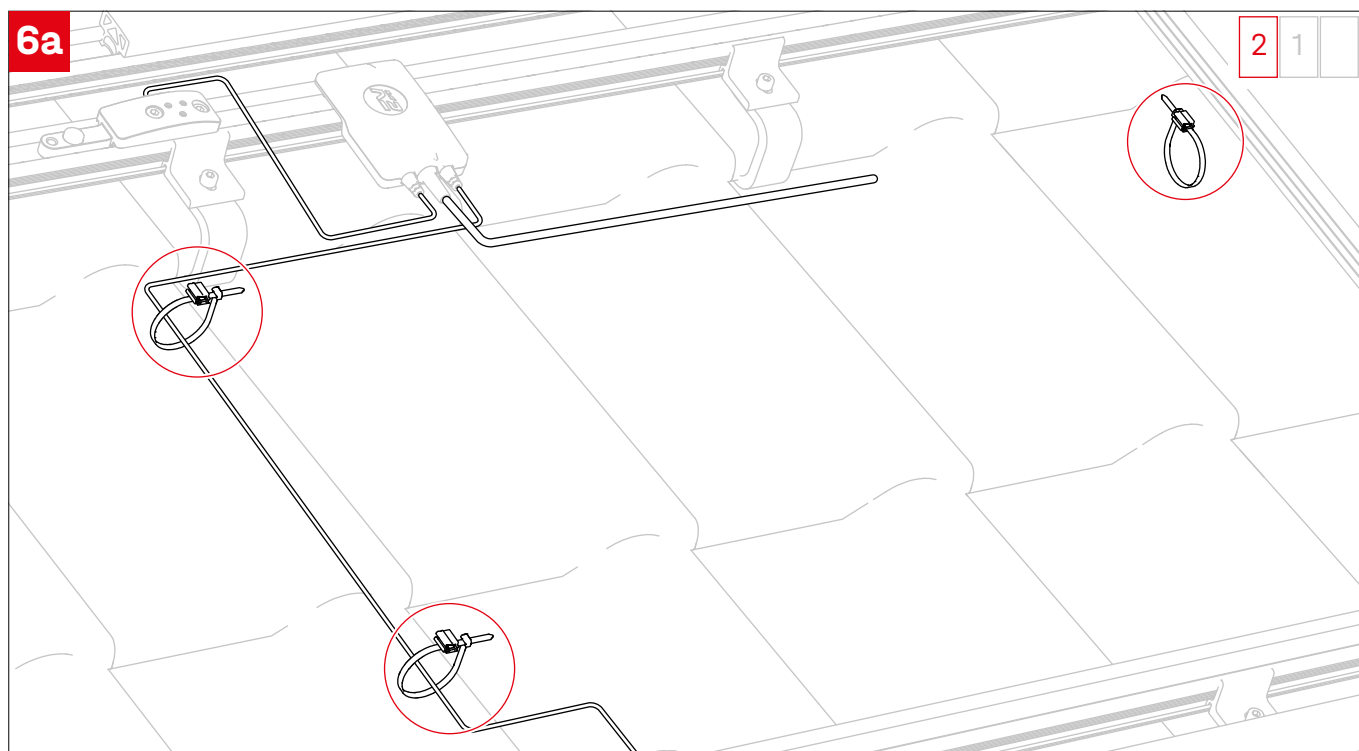
Positioning of snow sensors

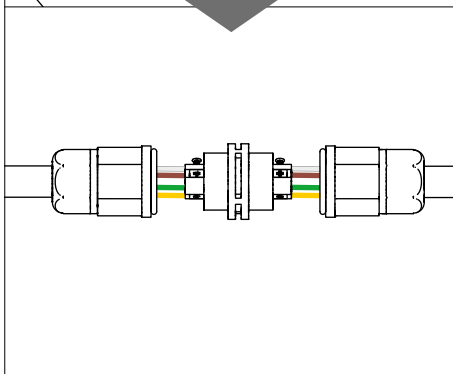
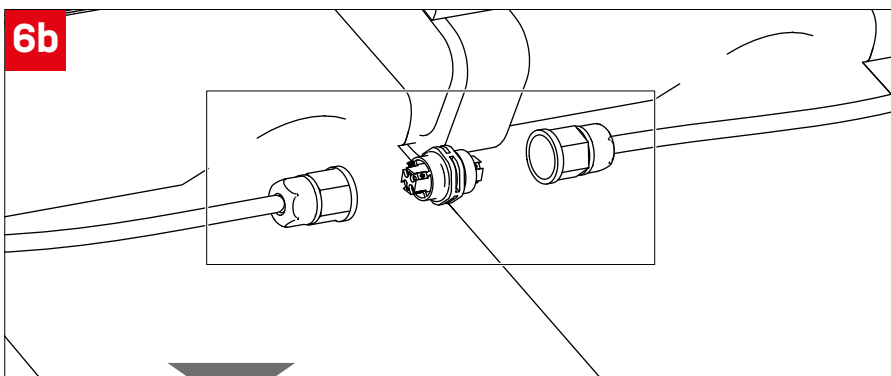


Insert TopBox and record sensor values



Cable management

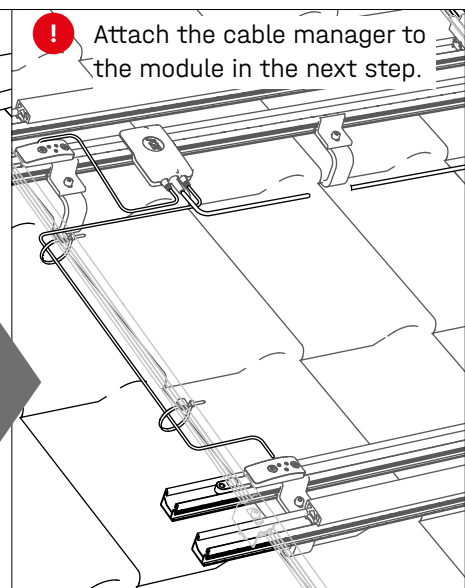


6b**Assignment**

Name	Colour	Number
+24 V DC	Brown ●	1
GND	White ○	2
RS485-A	Green ●	3
RS485-B	Yellow ●	4
Shield		Do not connect!

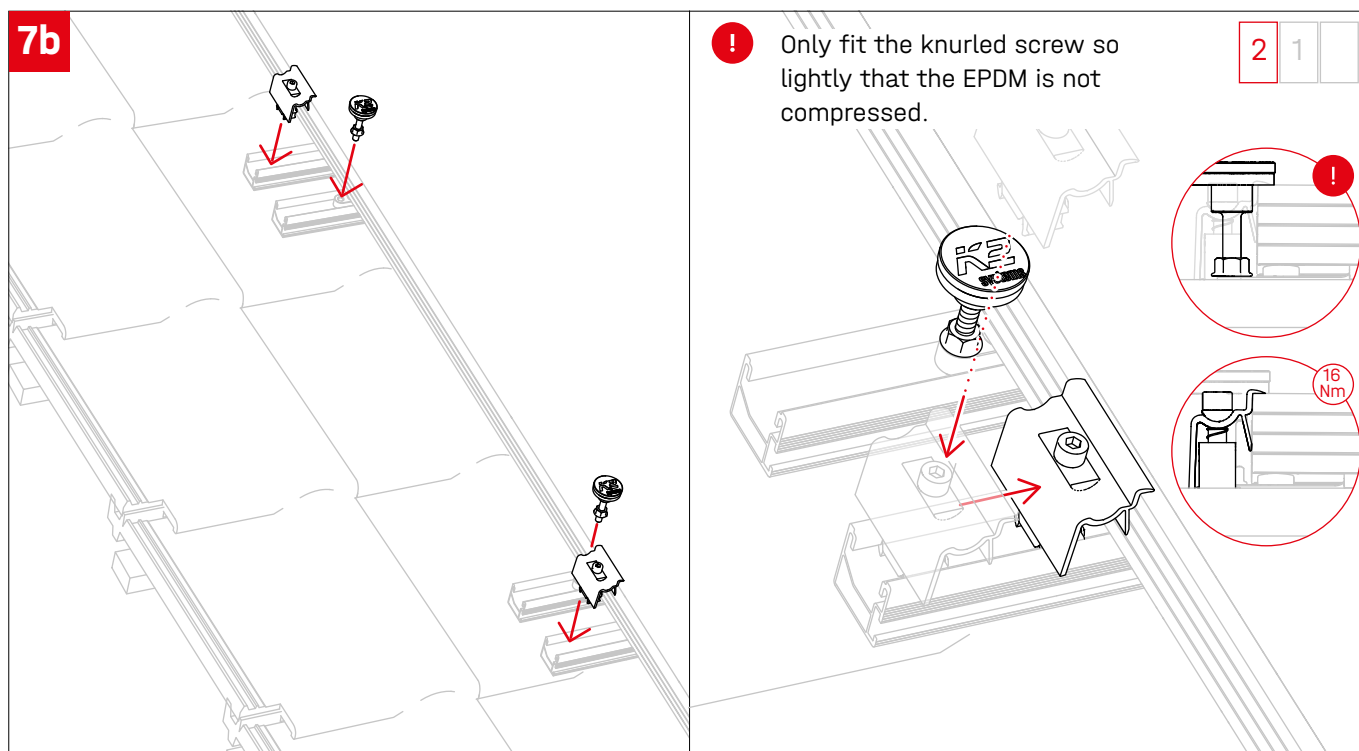


Attach the cable manager to the module in the next step.



More details in the installation and operating instructions of the K2 Buddy BaseBox:
k2-systems.com/buddy-manual

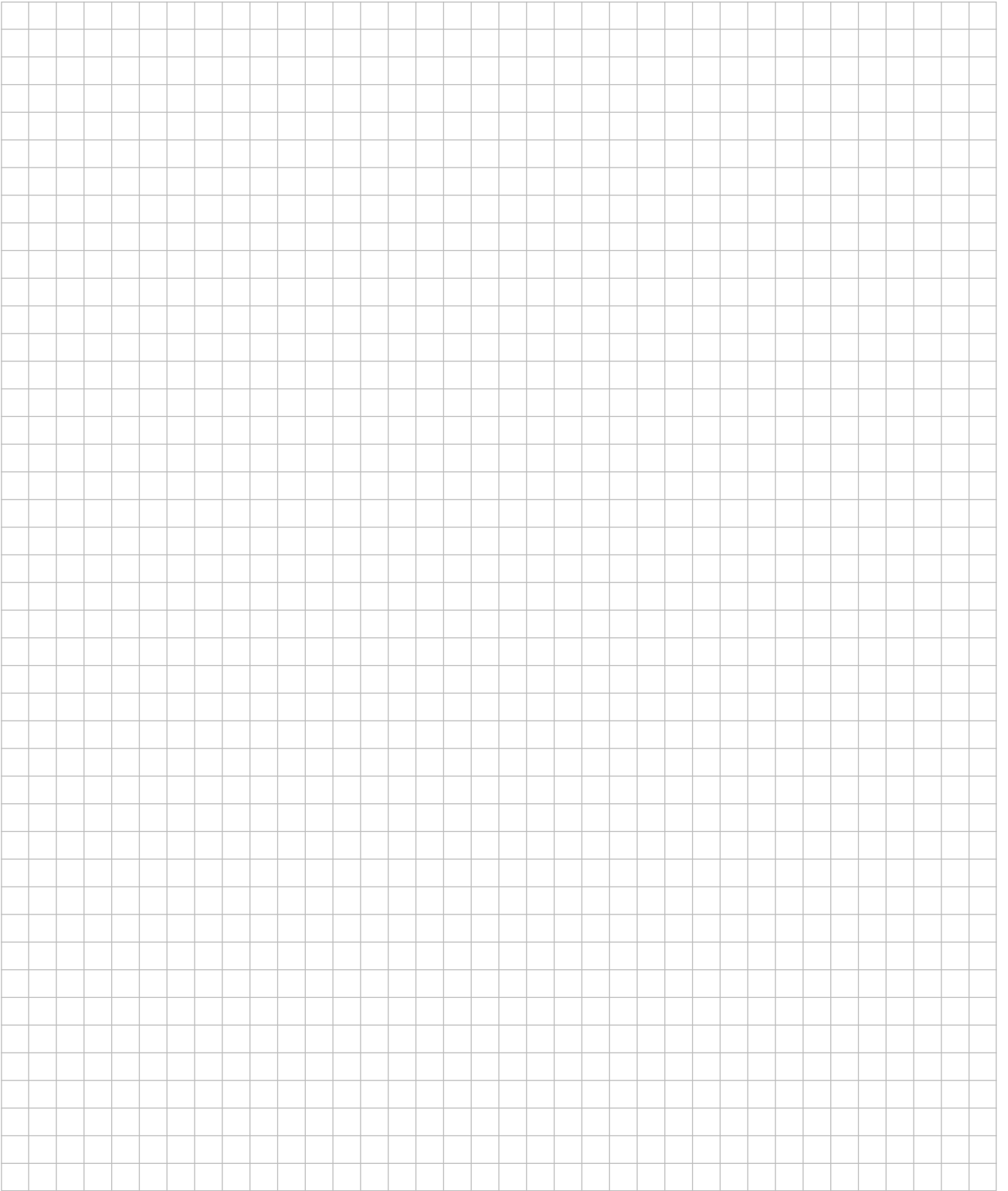
Positioning measuring module



7c



Notes



Thank you for choosing a K2 mounting system.

Systems from K2 Systems are quick and easy to install.
We hope that these instructions have been of help to you.
Please do not hesitate to contact us if you have any suggestions,
questions or ideas for improvements. All contact details can be found
at:

- k2-systems.com/en/contact/
- **Service hotline: +49 (0)7159 420 590**

Our General Terms and Conditions of Delivery apply and can be found
at: k2-systems.com

K2 Systems GmbH

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K2 Buddy TopBox SingleHook Manual EN V1 | 1024 · Subject to change without notice
Images of the products are exemplary and may differ from the original.



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