



 Assembly instructions



K2 Buddy TopBox

for Dome 6 flat roof systems



Connecting Strength

k2-systems.com

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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



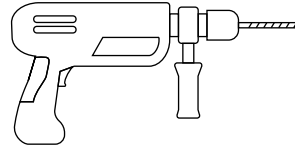
5 + 6 mm



8 mm



30



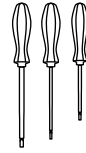
5 mm



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 Dome 6 systems (Classic, Classic LS, Xpress). These assembly instructions only apply together with the associated installation and operating instructions for the K2 Buddy 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



Roof requirements

- This system can be installed on all standard flat roofs with a pressure-resistant substrate and a roof pitch $\leq 3^\circ$ without a fixed connection.
- Fixed connection $> 3^\circ$ to $\leq 10^\circ$
 - Up to $\leq 5^\circ$ combinations with ballast possible
 - $> 5^\circ$ to $\leq 10^\circ$ only without ballast
- The roof surface must be clean and dry. Even out or eliminate roof undulations if necessary.
- The coefficient of friction of the roof must be determined on site. See video at k2-systems.com/en/friction-coefficient



Structural requirements

- It is essential to check the roof structure has sufficient residual load capacity and the pressure capacity of the heat insulation on site.
- For framed modules with a frame height of (for larger module frame heights, on request): 28 - 35 mm
- Permitted module dimensions:
Length 1,448 - 2,100 mm, width 950 - 1,170 mm



Important assembly instructions

Mounting system

The assembly instructions for the respective Dome 6 mounting system apply.

General information

- When designing the ballasting, external influences acting on the system are only represented to a limited extent. For example, unevenness, thermal linear expansion, moss, waterlogging and ageing of the membrane can therefore not be taken into account, but these influences can also cause the system to shift under certain circumstances. To ensure that the Buddy functions properly on the roof, the weighing unit should be serviced every year before the winter months; i.e. any dirt that is directly on the unit should be removed and the system should be re-tared using the Buddy app.
- Care must be taken to ensure that the drainage of rainwater is not impeded.



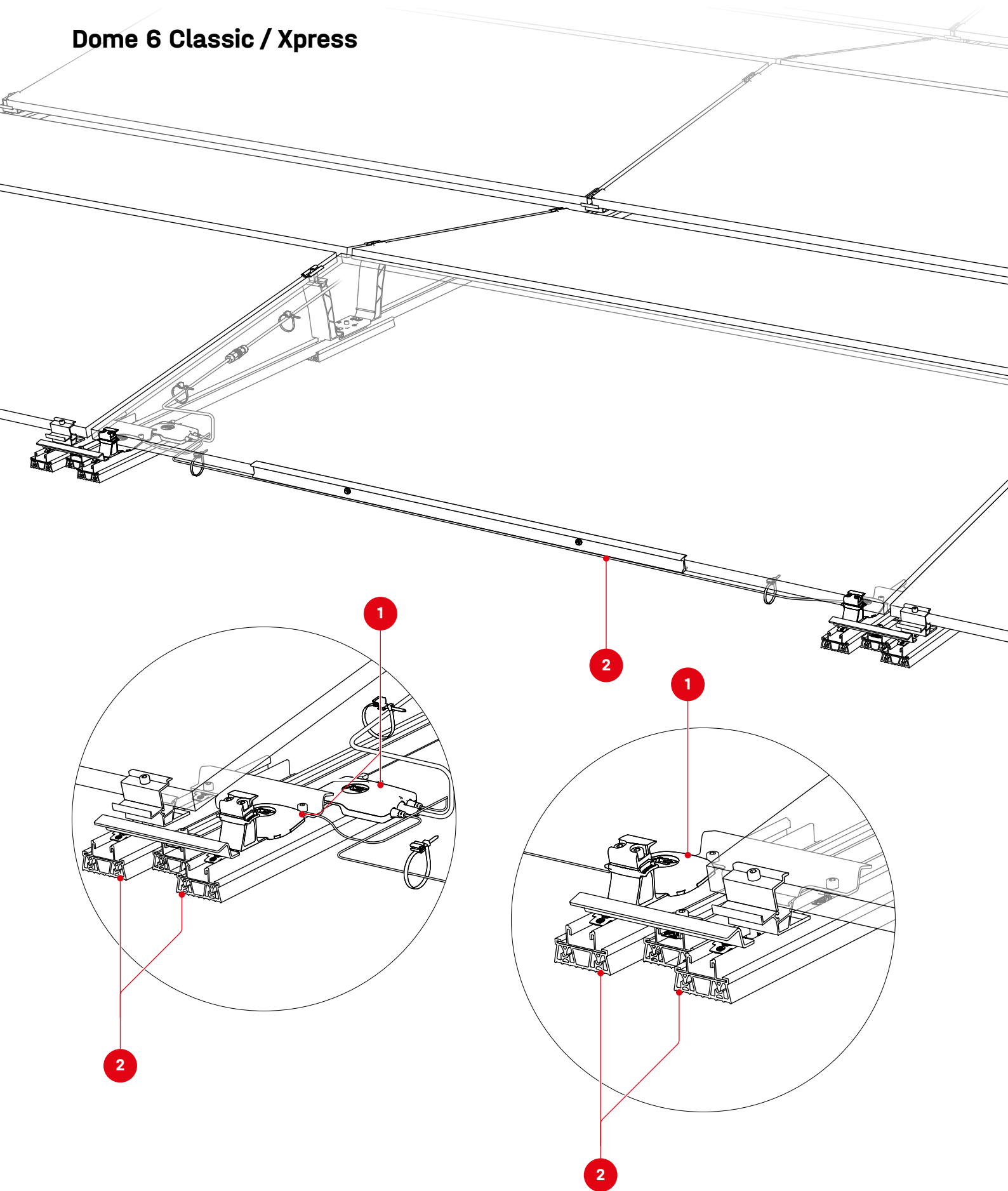
Buddy app cheat sheet

Fill it in and pass it on for electrical installation!

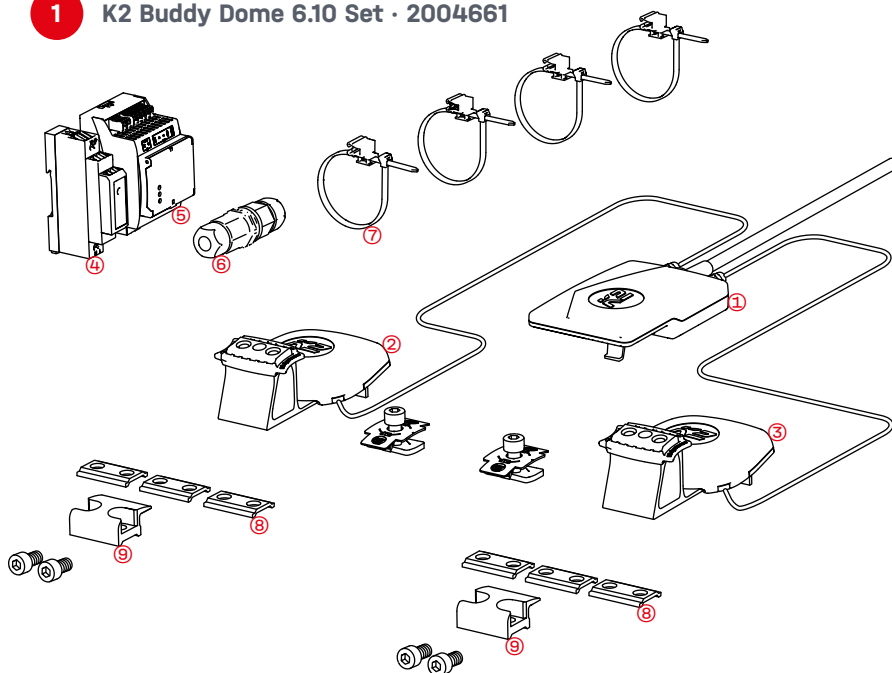


Components

Dome 6 Classic / Xpress



1 K2 Buddy Dome 6.10 Set · 2004661

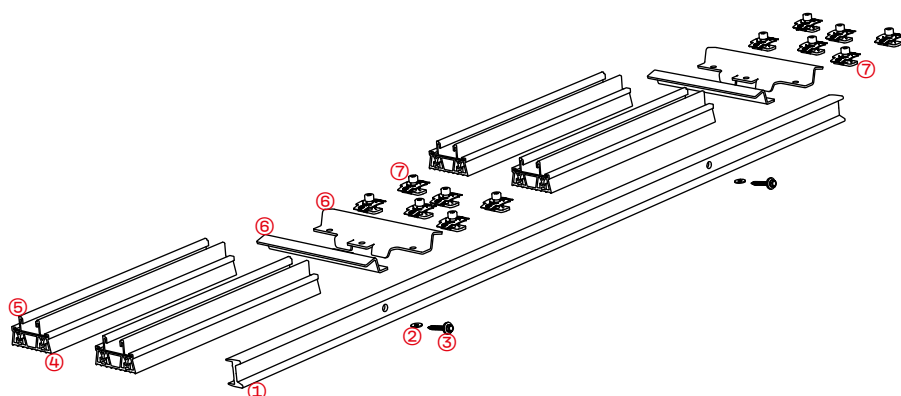


- 1× 2000004 · **TopBox** ①
- 1× **Snow sensor A** ②
- 1× **Snow sensor B** ③
- 1× 1000094 · **Power supply unit** ④
- 1× 2000043 · **BaseBox** ⑤
- 1× 1000004 · **Cable sleeve** ⑥
- 4× 2002870 · **Cable Manager** ⑦
- 2× 2000046 · Replacement screws cable sleeve
- 6× 2004475 · **Height levelling adapter** ⑧
- 2× 2004477 · **Lift Stop** ⑨
- 2× 1001643 · **MK2**
- 6× 2001729 · **Cylinder head screw M8×20**

The **installation and operation of the BaseBox ④+⑤** is described in a separate manual.

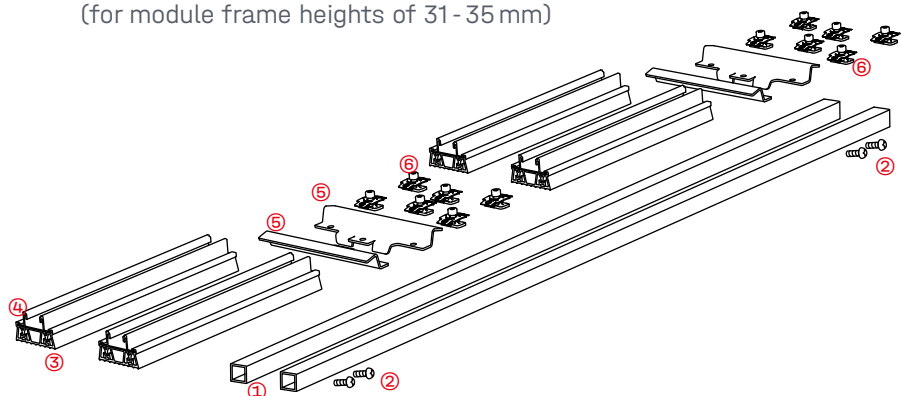


2 K2 Buddy Dome Rail Set 30 mm · 2004484 (for module frame heights of 28 - 30 mm)



- 1× 2000088 · **Module bracing 1.3 m** ①
- 2× 2004491 · **Washer DIN9021 D5** ②
- 2× 1005193 · **Thread-forming screw 6x38** ③
- 4× 2003126 · **Dome Mat S 380** ④
- 4× 2004485 · **BasicRail 380** ⑤
- 4× 2004664 · **K2 Buddy Dome Rail Connector** ⑥
- 12× 1001643 · **MK2** ⑦
- 12× 2001729 · **Cylinder head screw M8x20** ⑦

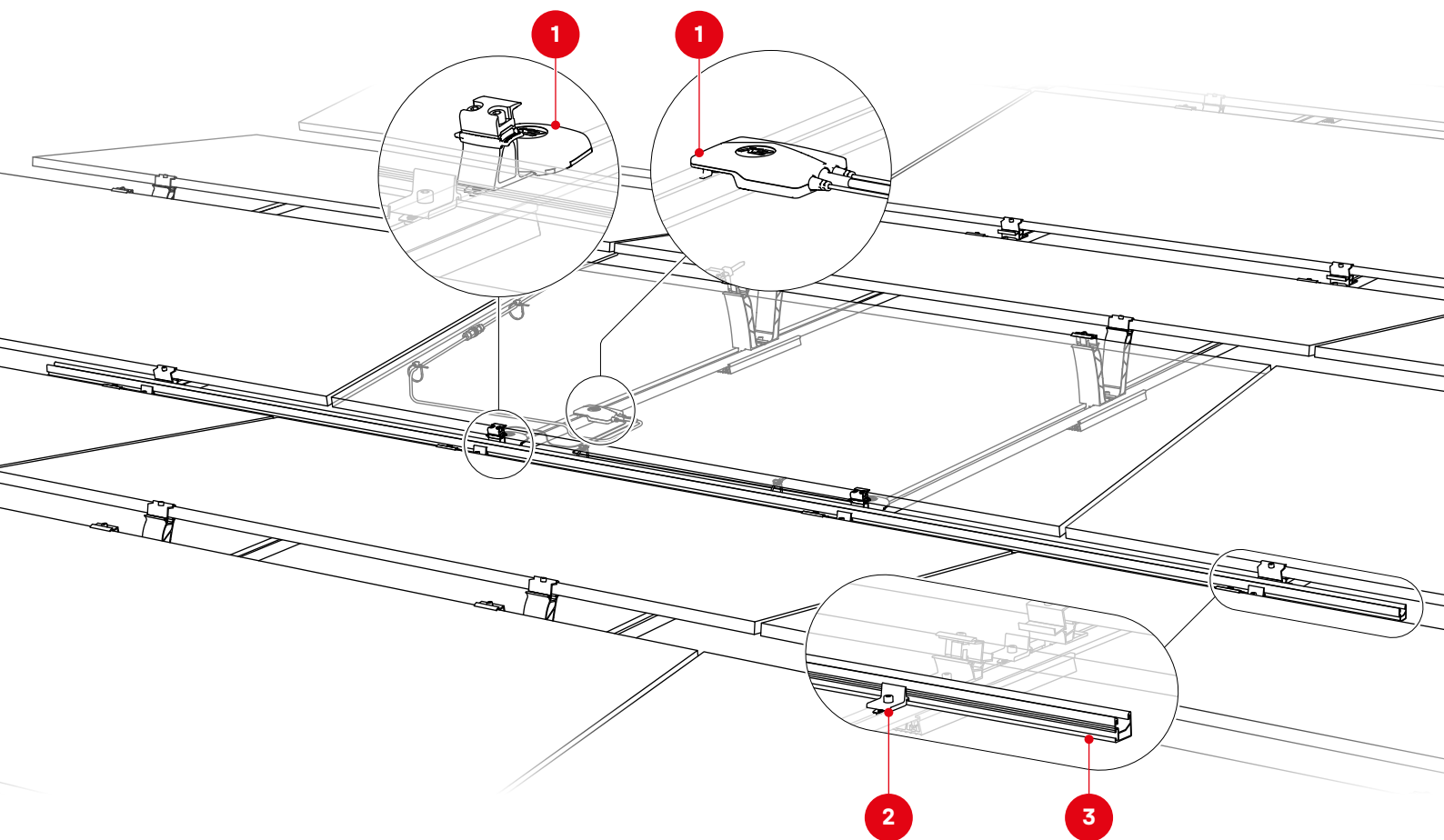
K2 Buddy Dome Rail Set 35 mm · 2004663 (for module frame heights of 31 - 35 mm)



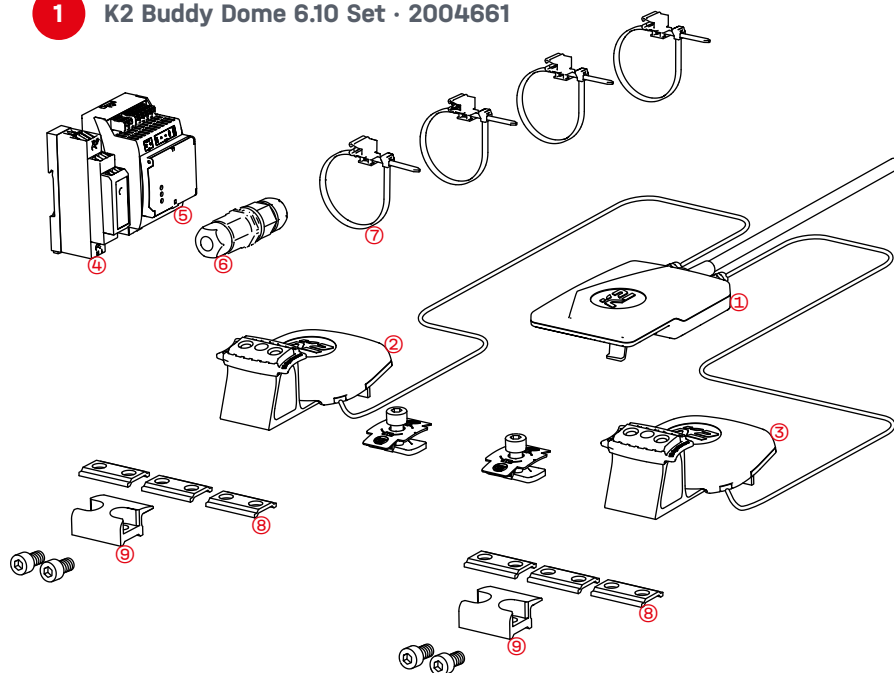
- 2× 2004429 · **Module bracing 1.3 m** ①
- 4× 2004425 · **Thread-forming screw TX M6x16 DIN7500** ②
- 4× 2003126 · **Dome Mat S 380** ③
- 4× 2004485 · **BasicRail 380** ④
- 4× 2004664 · **K2 Buddy Dome Rail Connector** ⑤
- 12× 1001643 · **MK2** ⑥
- 12× 2001729 · **Cylinder head screw M8x20** ⑥

Components

Dome 6 Classic LS



1 K2 Buddy Dome 6.10 Set · 2004661

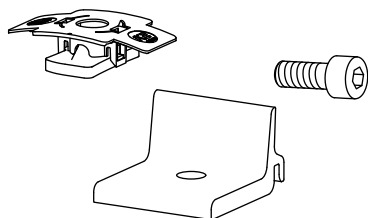


- 1× 2000004 · **TopBox** ①
- 1× **Snow sensor A** ②
- 1× **Snow sensor B** ③
- 1× 1000094 · **Power supply unit** ④
- 1× 2000043 · **BaseBox** ⑤
- 1× 1000004 · **Cable sleeve** ⑥
- 4× 2002870 · **Cable Manager** ⑦
- 2× 2000046 · Replacement screws cable sleeve ⑧
- 6× 2004475 · **Height levelling adapter** ⑨
- 2× 2004477 · **Lift Stop** ⑩
- 2× 1001643 · MK2 ⑪
- 6× 2001729 · Cylinder head screw M8×20 ⑫

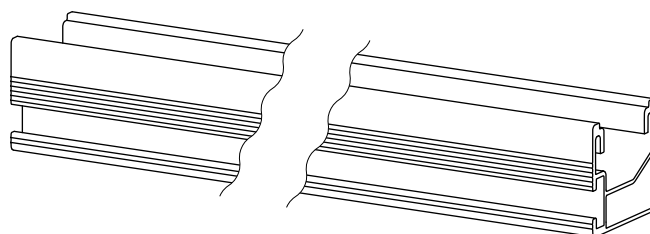
The **installation and operation** of the **BaseBox ④+⑤** is described in a separate manual.



2 Climber 36/50 Set · 2003145

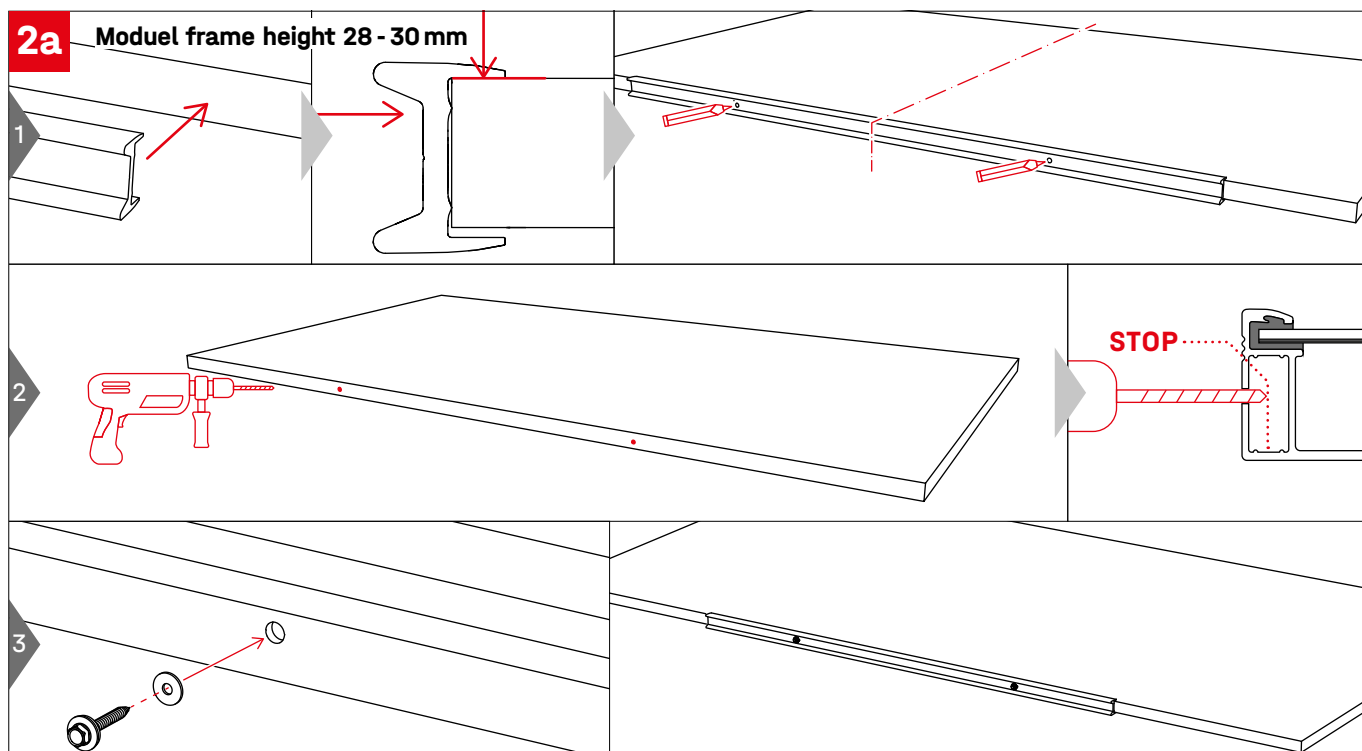
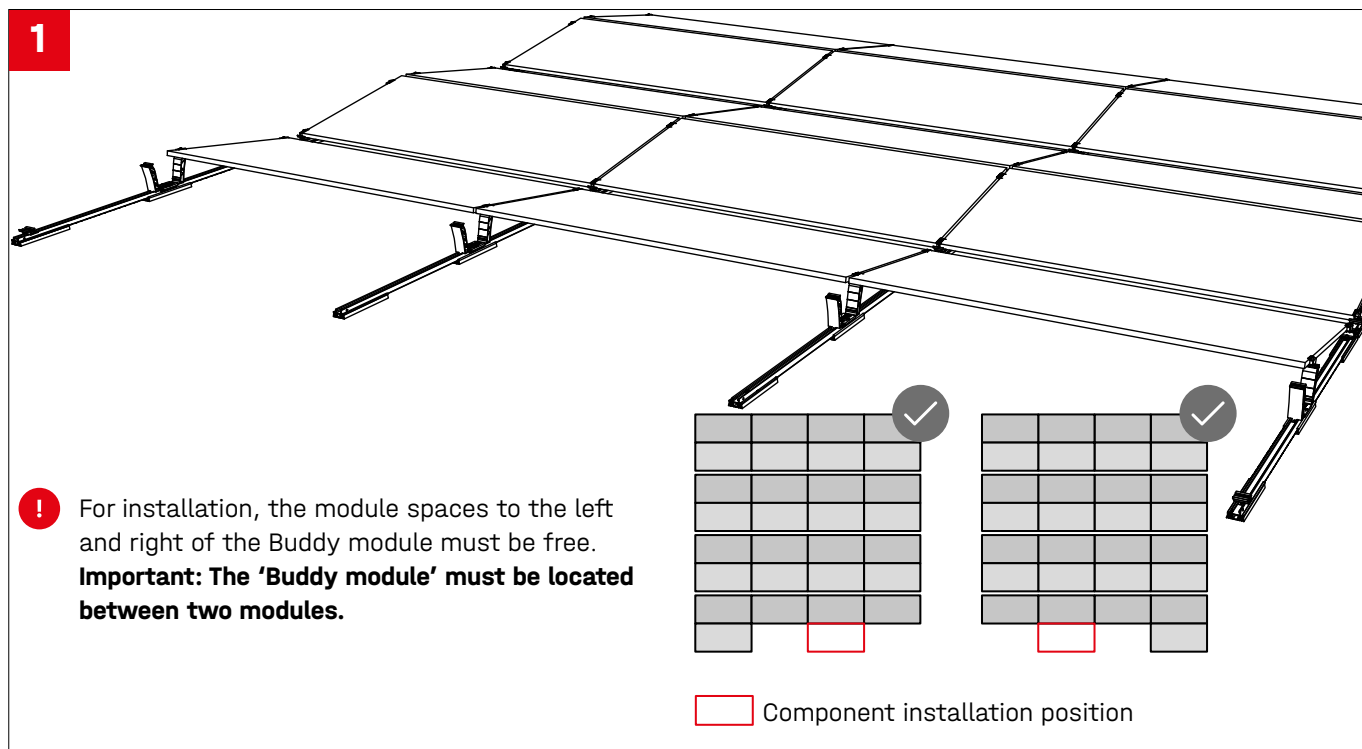


3 SingleRail 36 · Article number project specific!

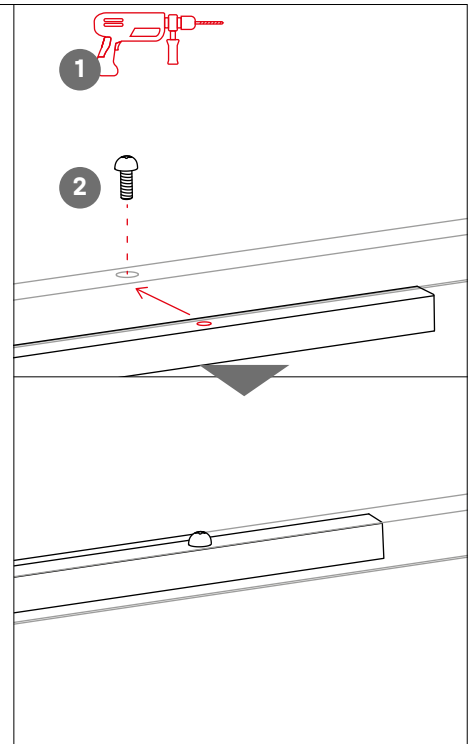
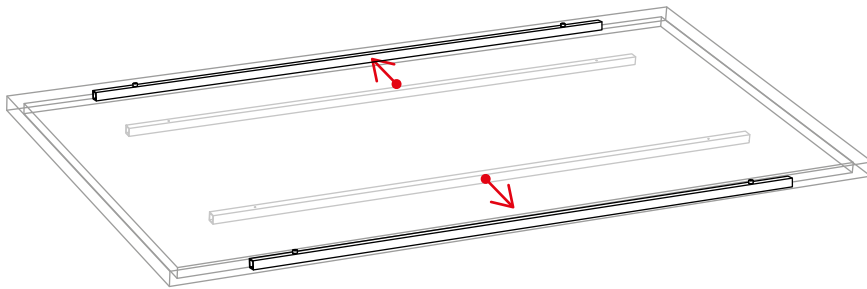


Assembly Dome 6 Classic / Xpress

Preparation and module bracing

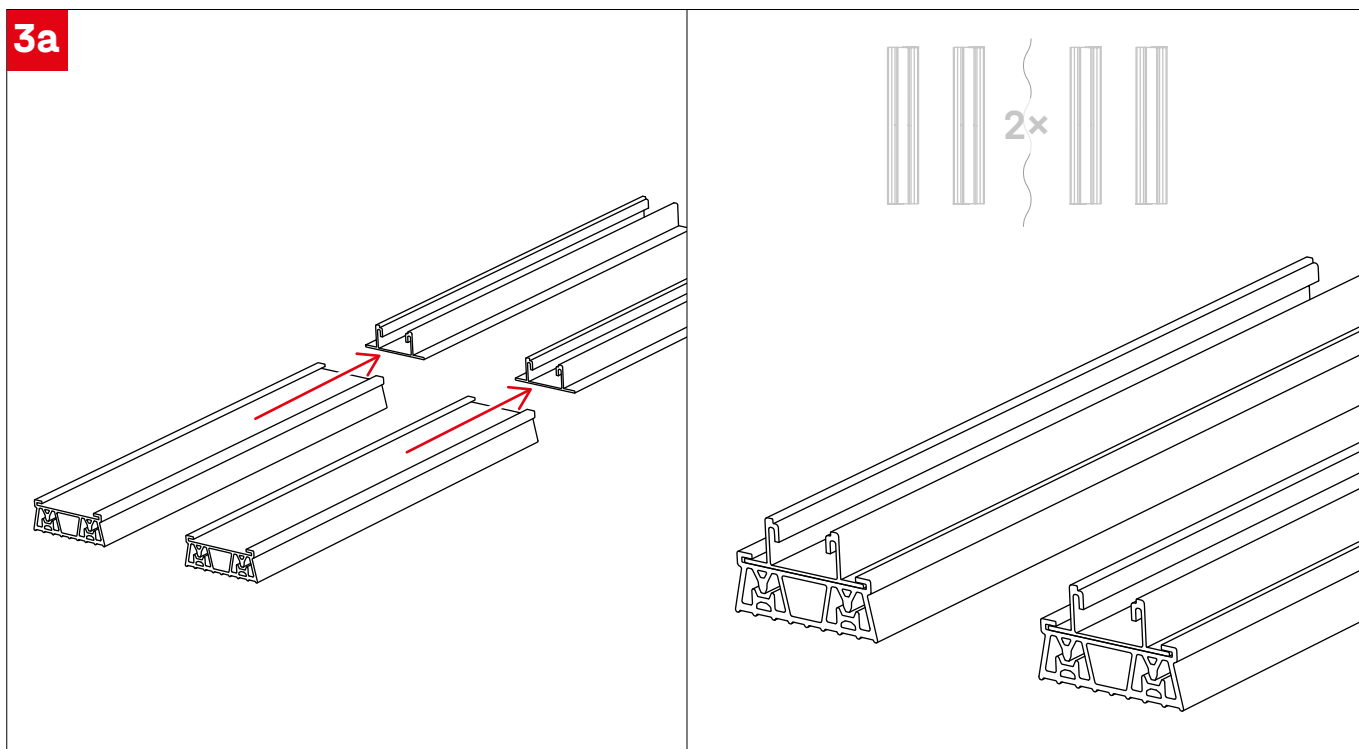


2b Module frame height ≥ 31 mm



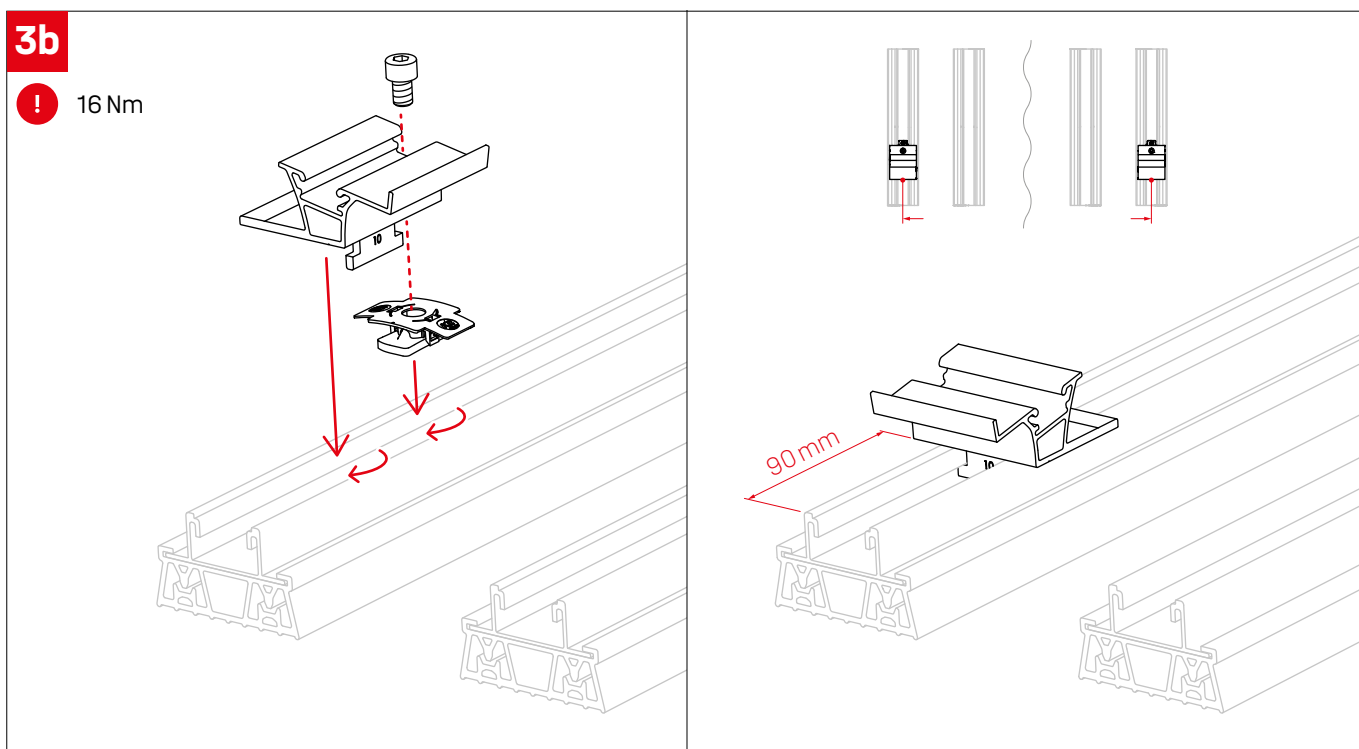
Preparation of Rail Set with snow scales

3a

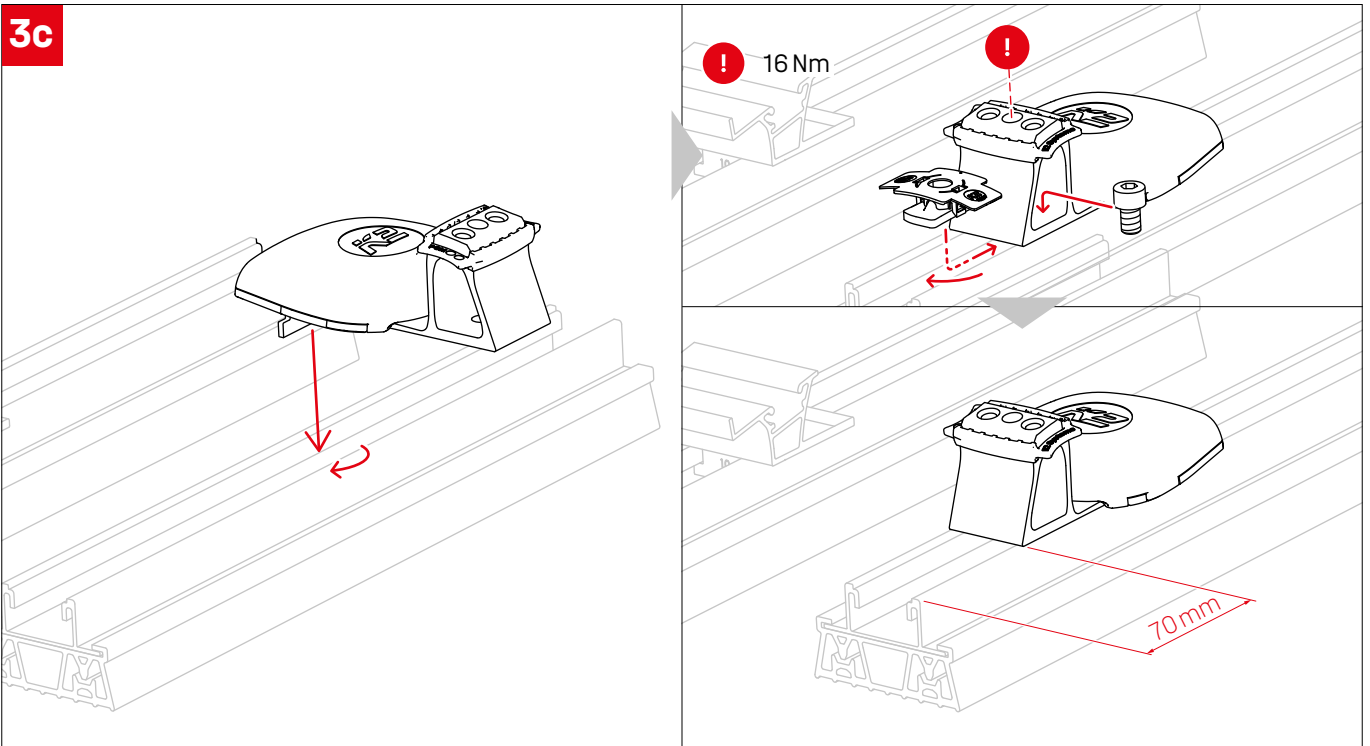


3b

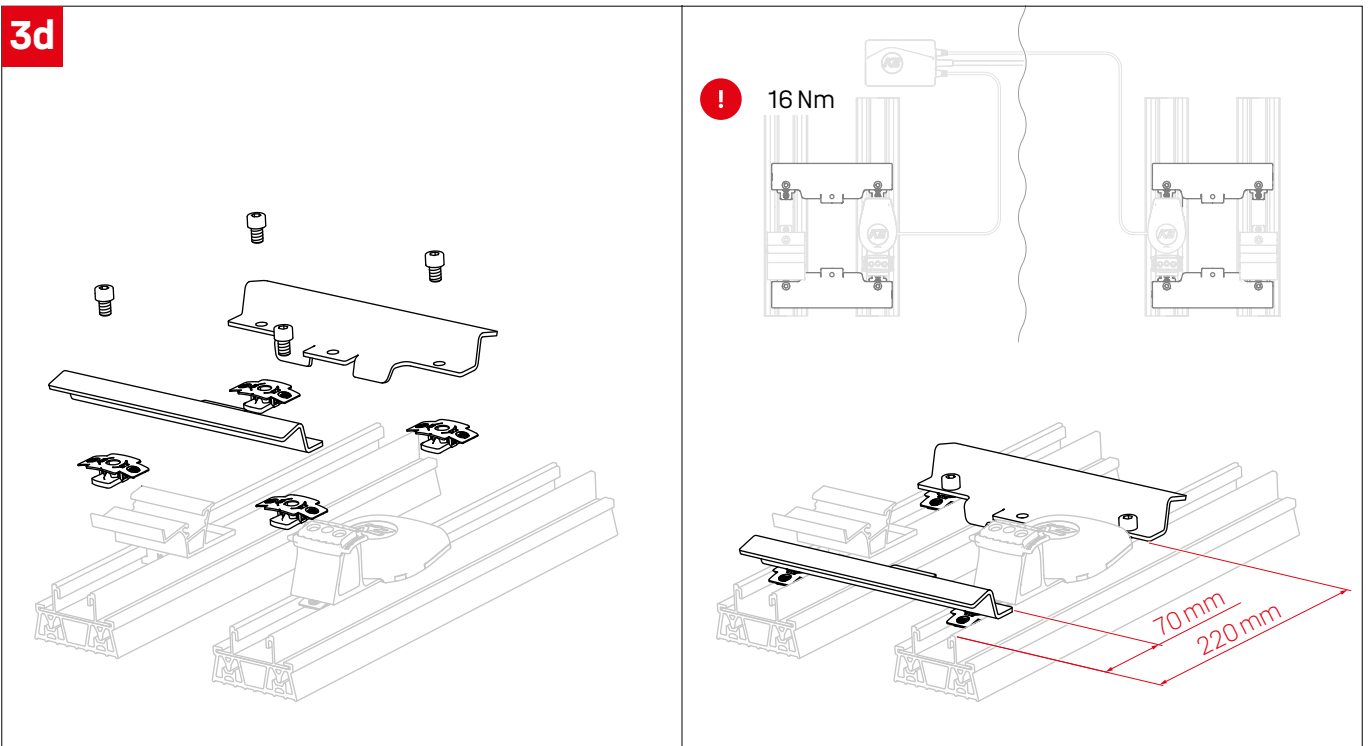
! 16 Nm



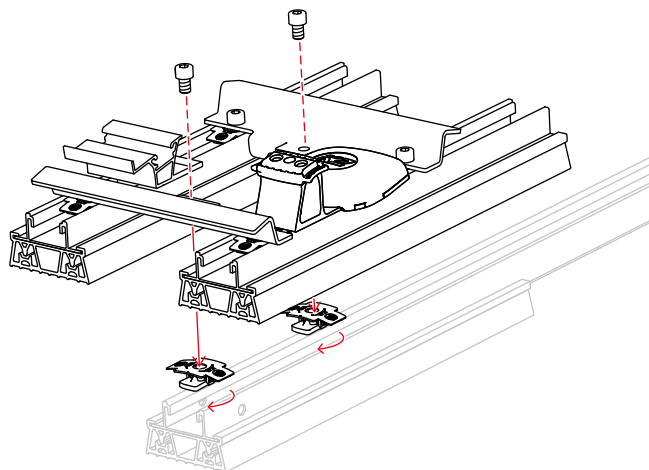
3c



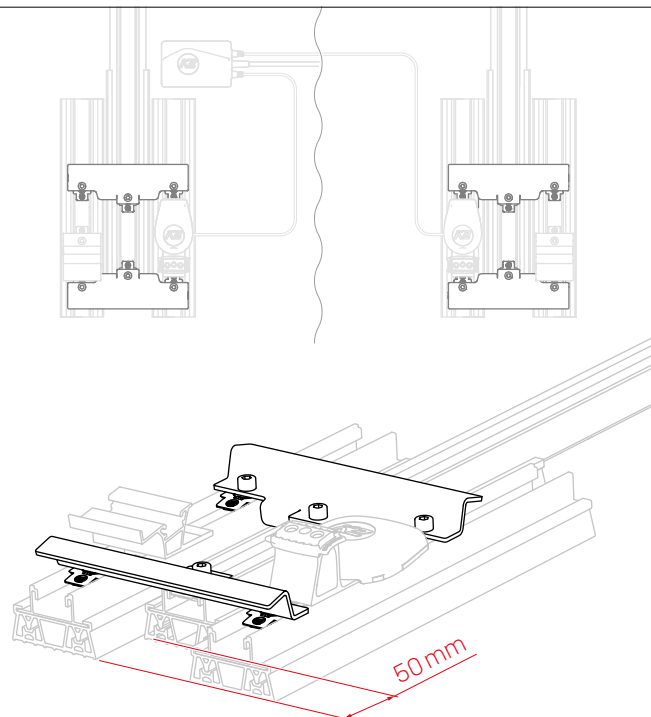
3d



3e

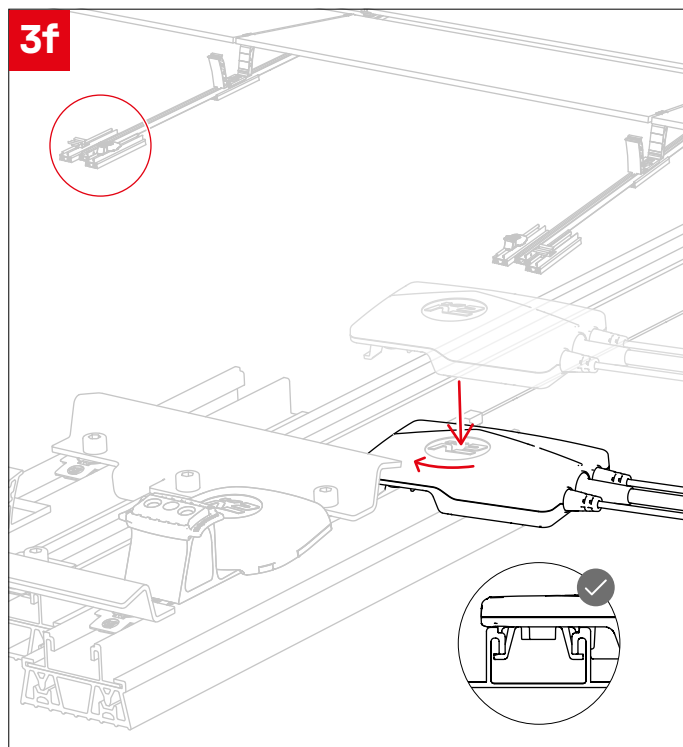


! The pre-installed SD must be removed from Dome 6 Xpress systems.

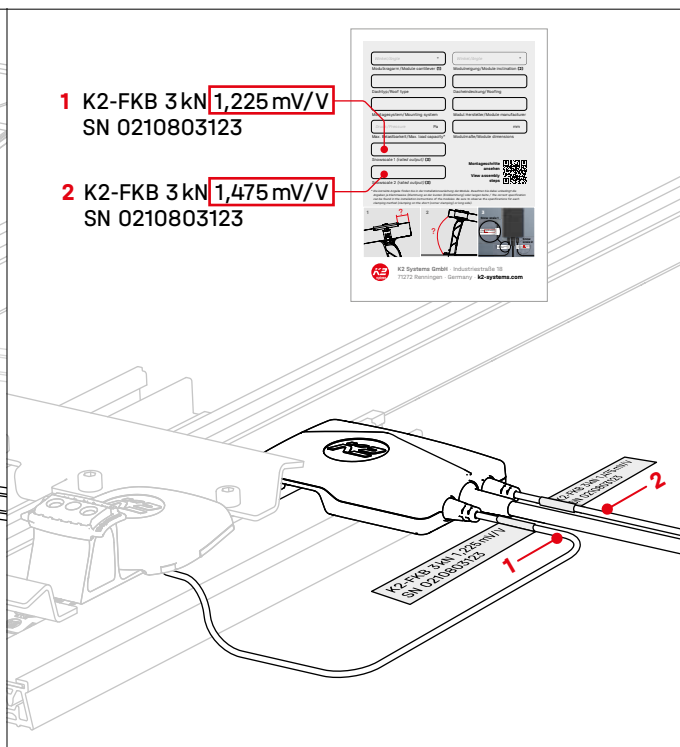
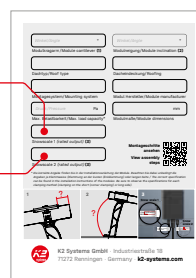


Insert TopBox and record sensor values

3f

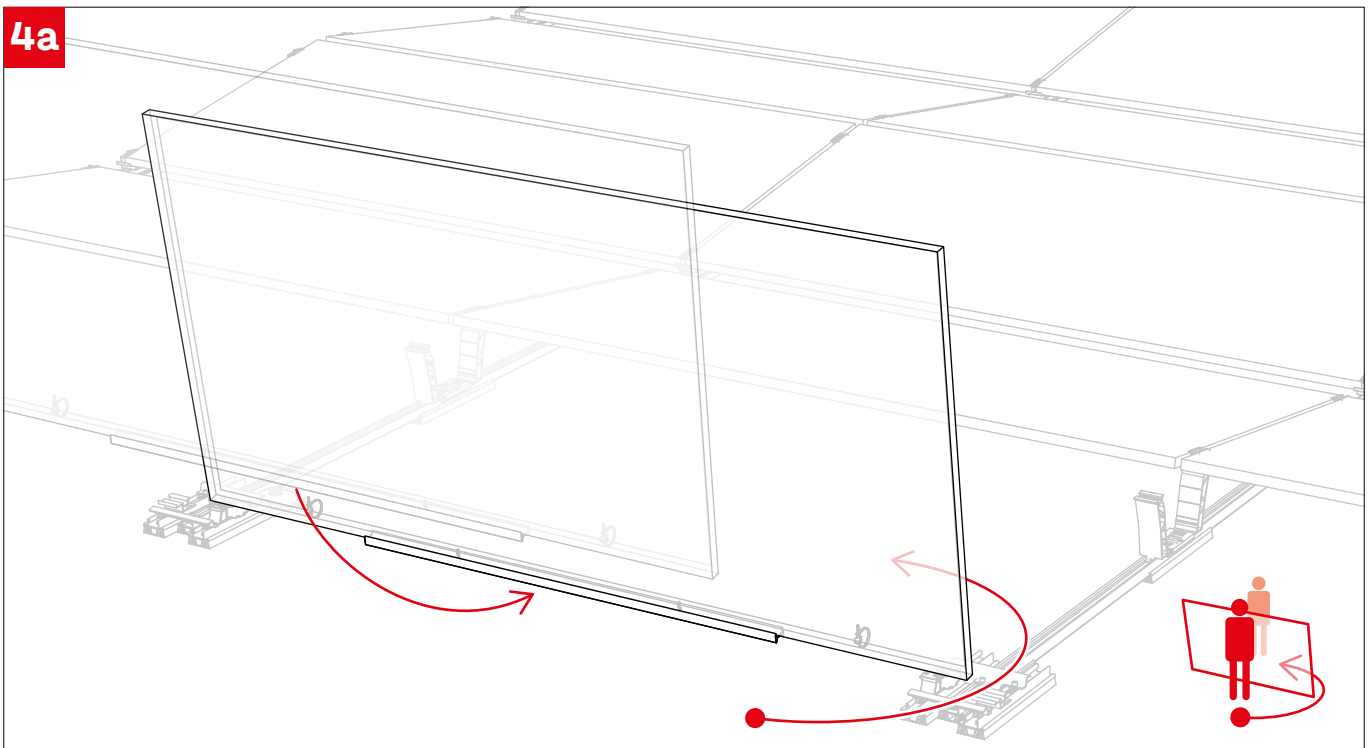


- 1 K2-FKB 3 kN **1,225 mV/V**
SN 0210803123
- 2 K2-FKB 3 kN **1,475 mV/V**
SN 0210803123

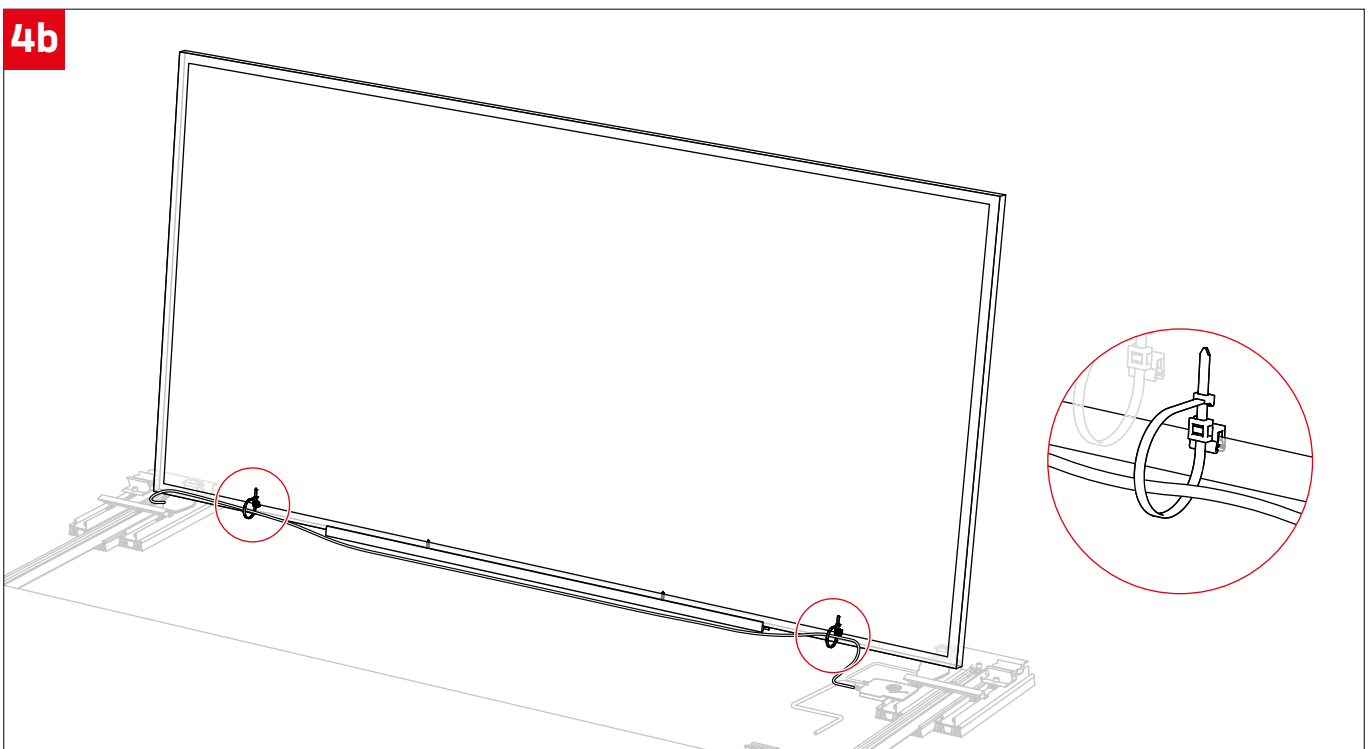


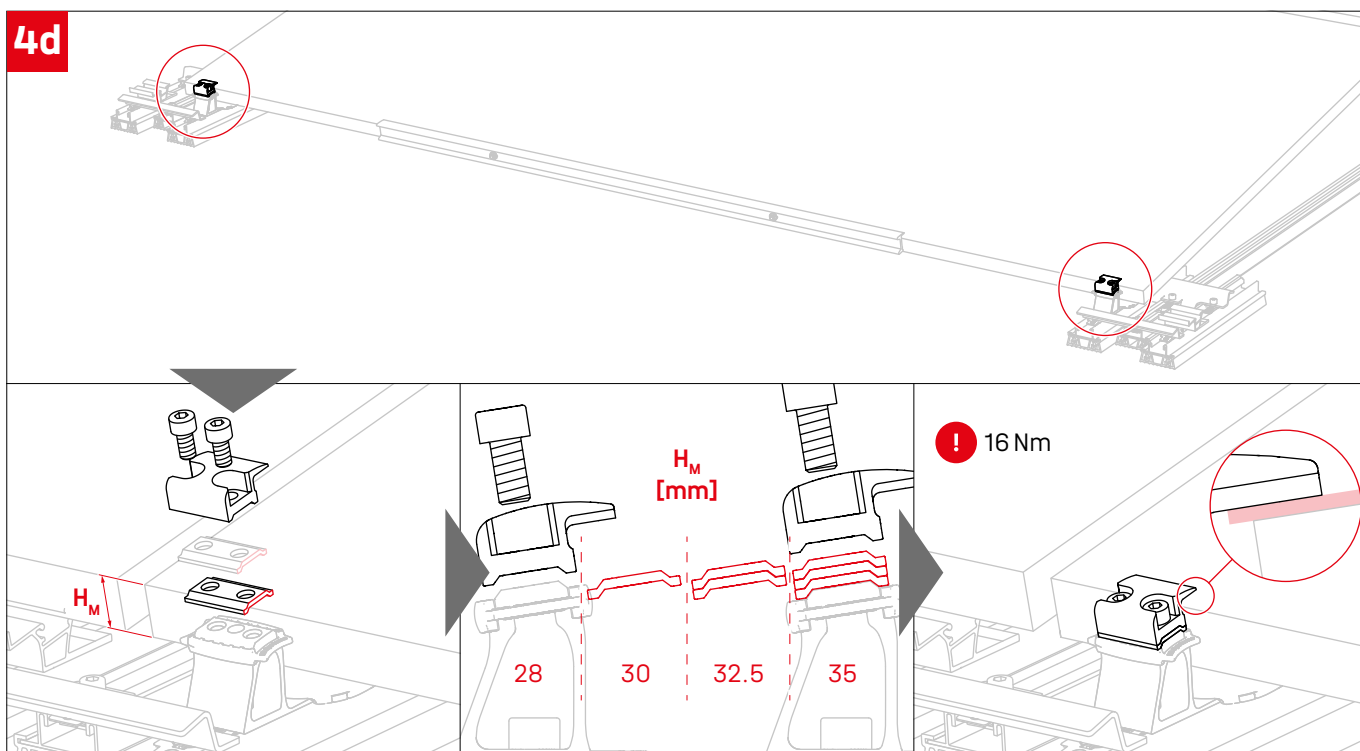
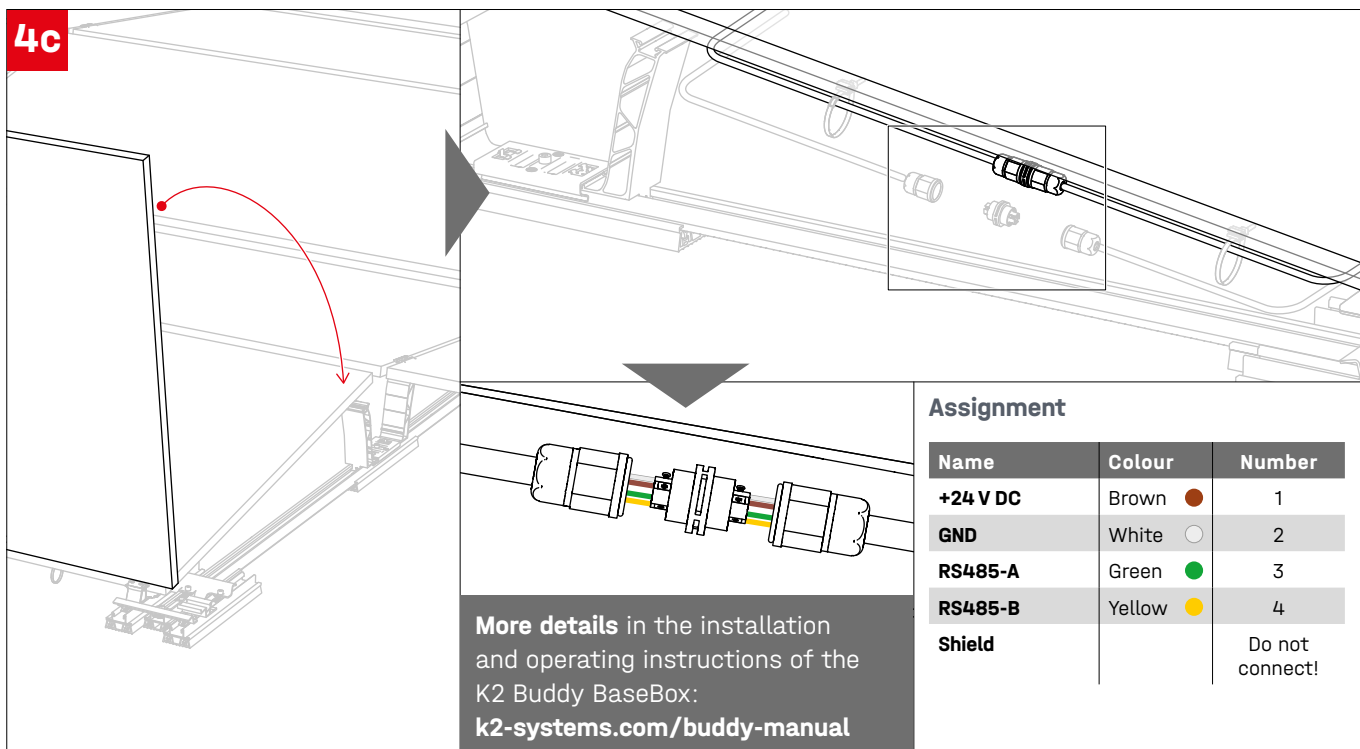
Installation Buddy-Modul and cable management

4a



4b

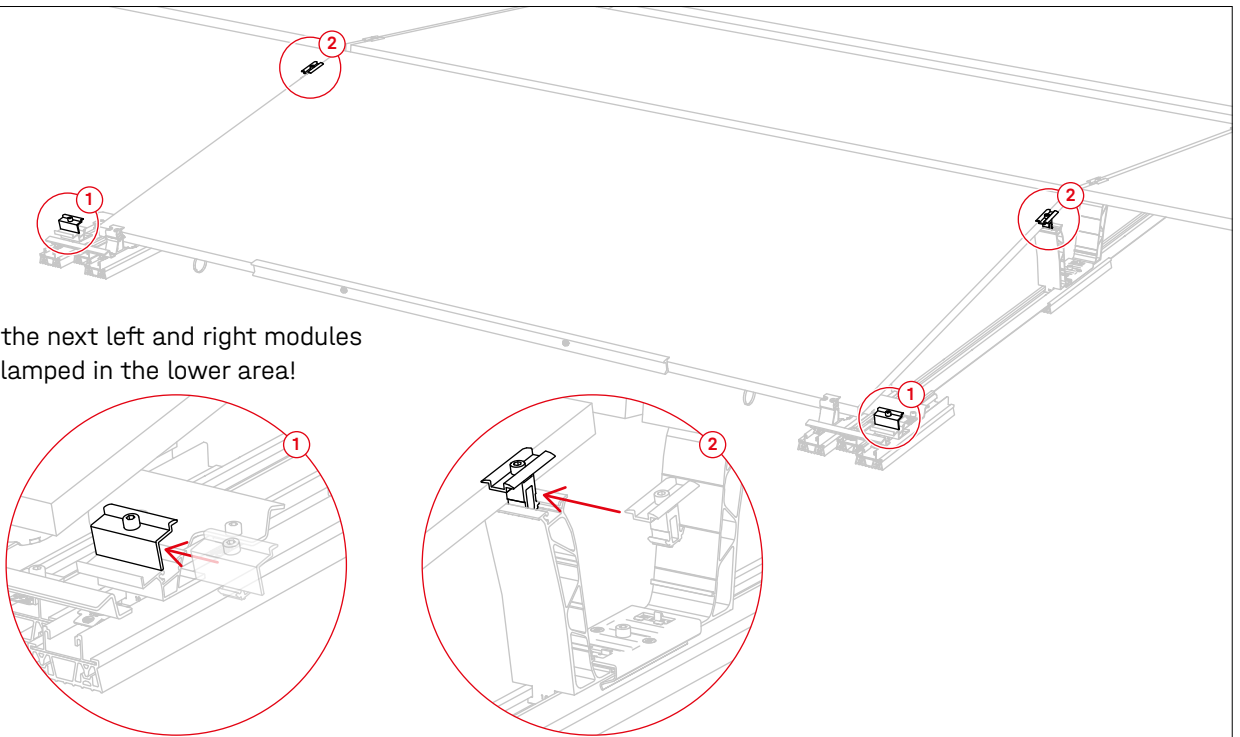




Module fixation

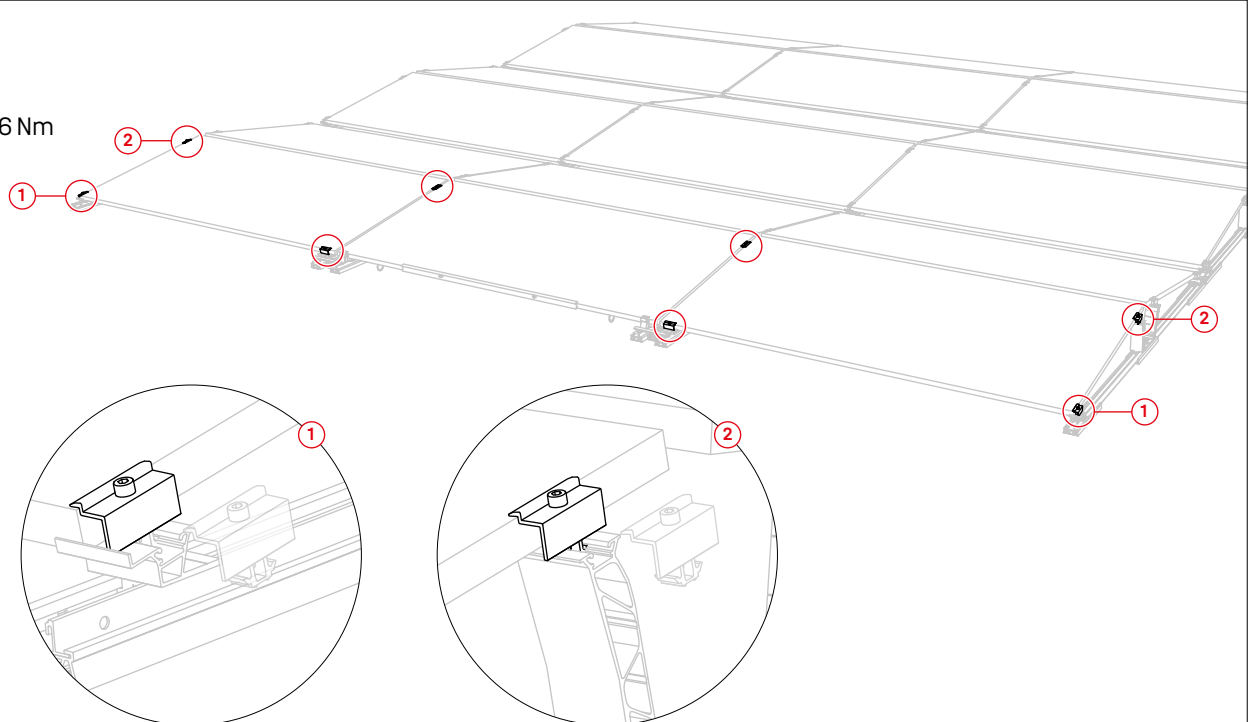
5a

! Only the next left and right modules are clamped in the lower area!



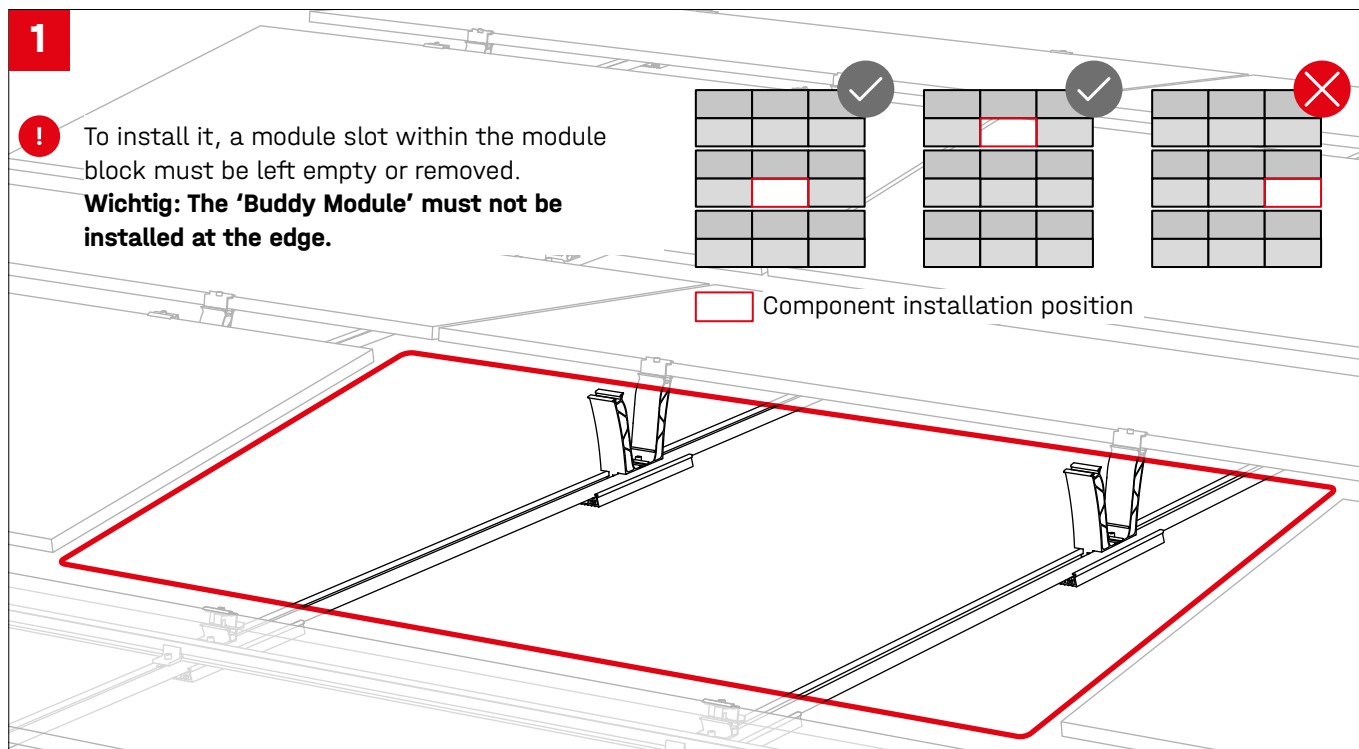
5b

! 16 Nm

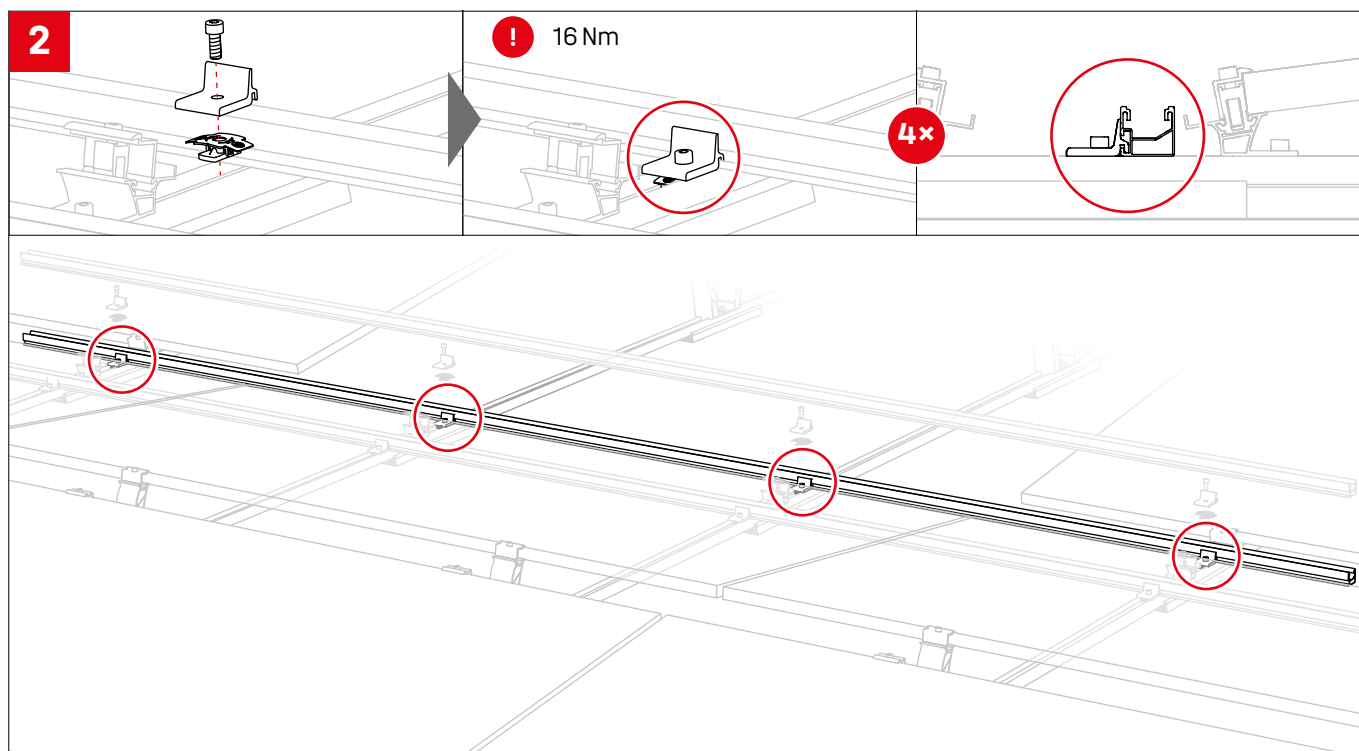


Assembly Dome 6 Classic LS

Preparation

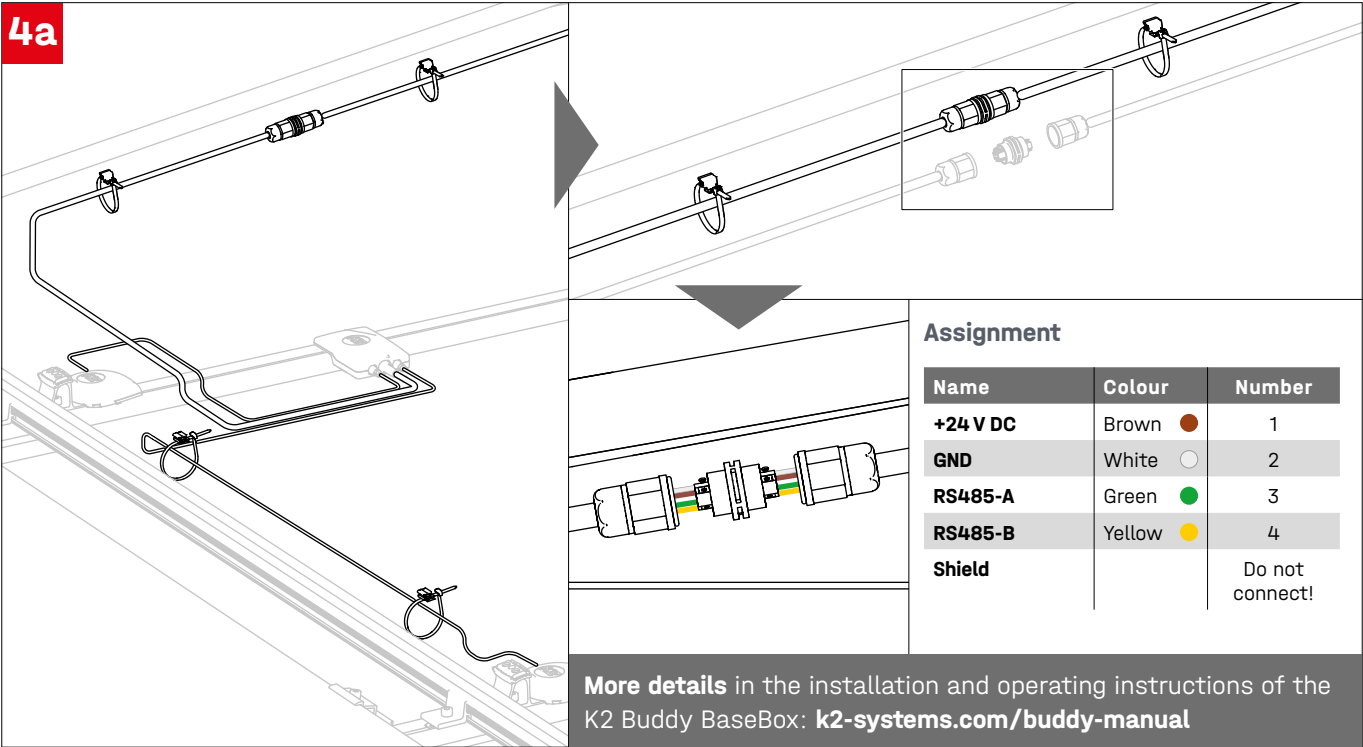


System bracing



Cable management and module fixation

4a

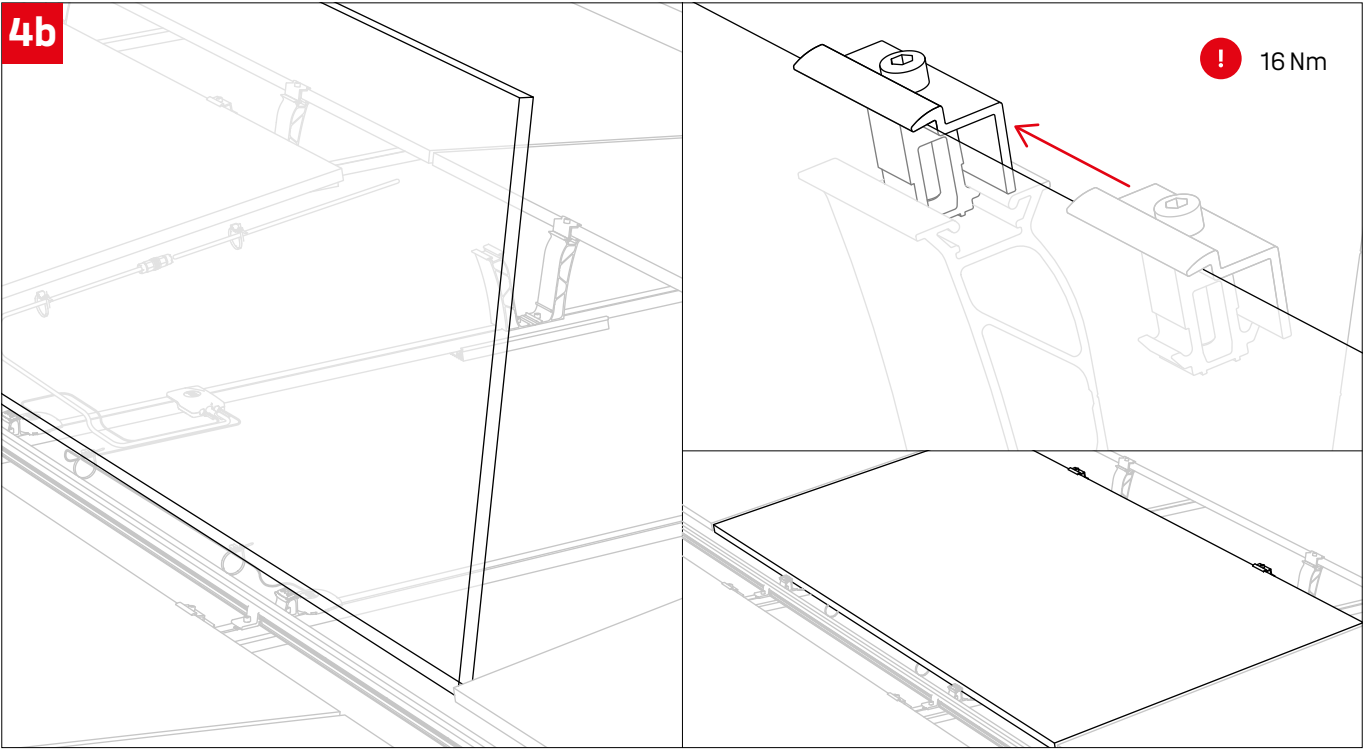


Assignment

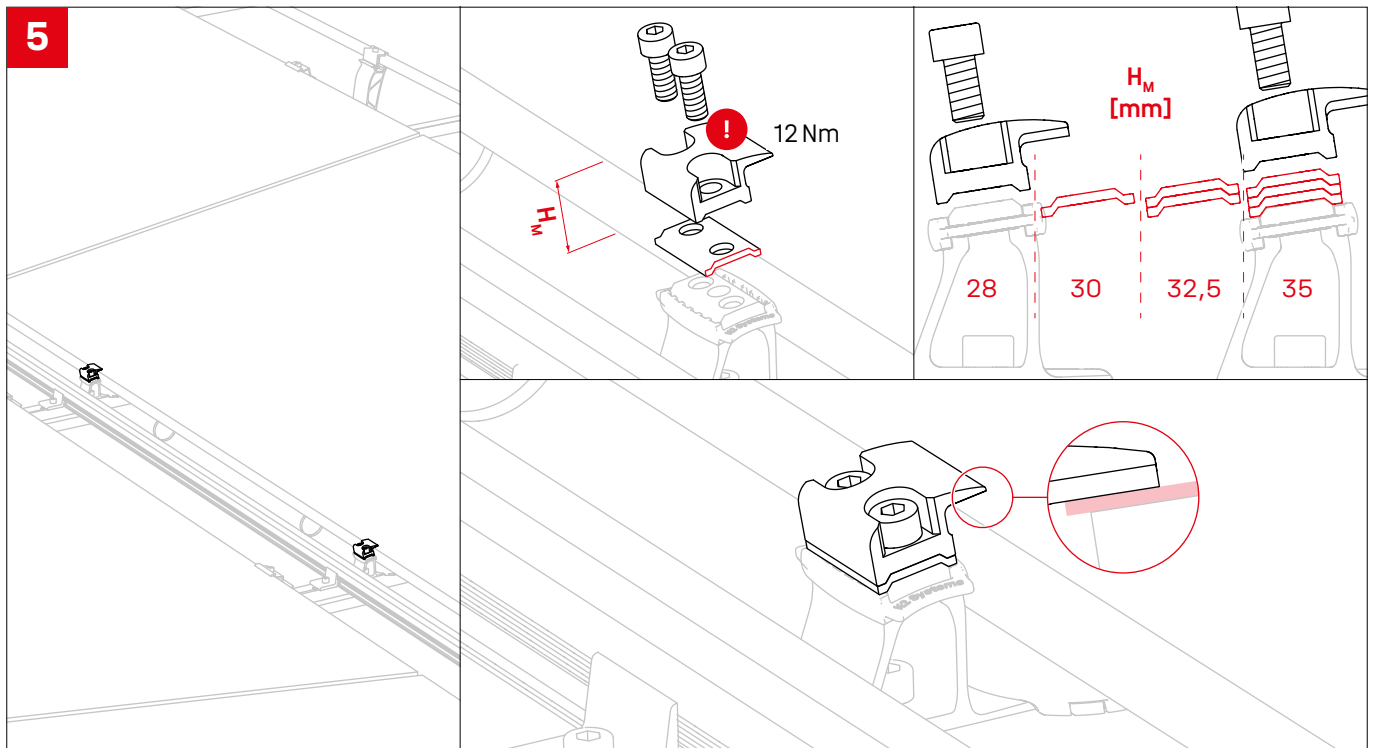
Name	Colour	Number
+24 V DC	Brown	1
GND	White	2
RS485-A	Green	3
RS485-B	Yellow	4
Shield		Do not connect!

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

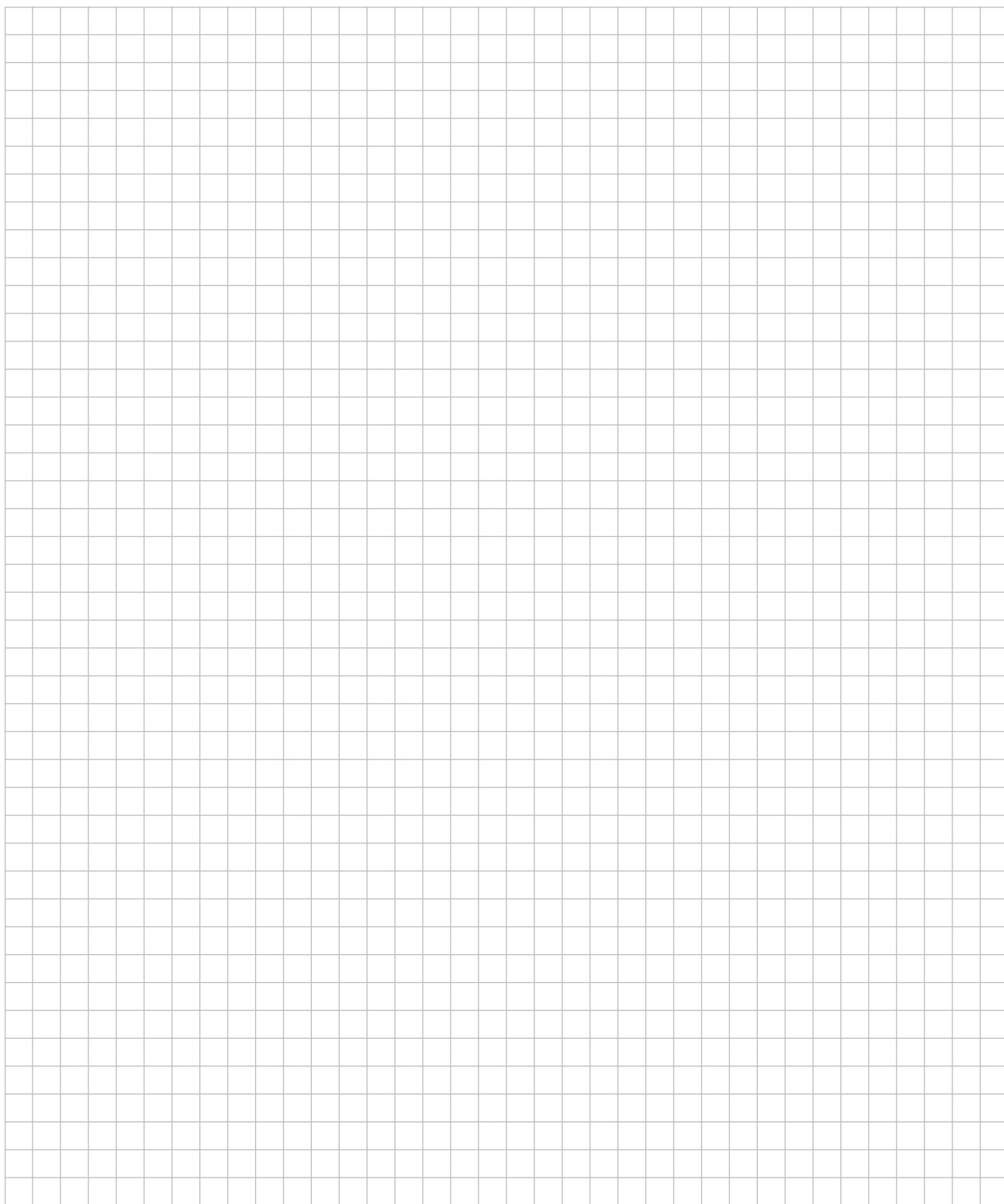
4b



Adjustment and installation of the Lift Stop



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

Haldenstraße 1 · 71272 Renningen · Germany
+49 (0) 7159 - 42059 - 0 · info@k2-systems.com · k2-systems.com

K2 Buddy TopBox Dome 6 Manual EN V3 | 0225 · Subject to change without notice
Images of the products are exemplary and may differ from the original.



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