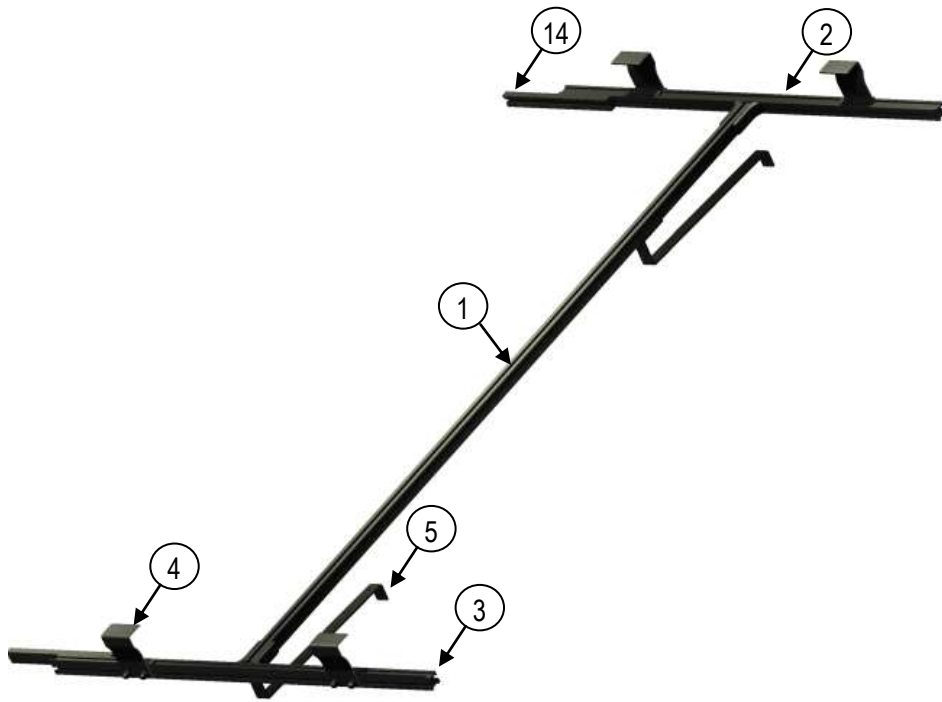


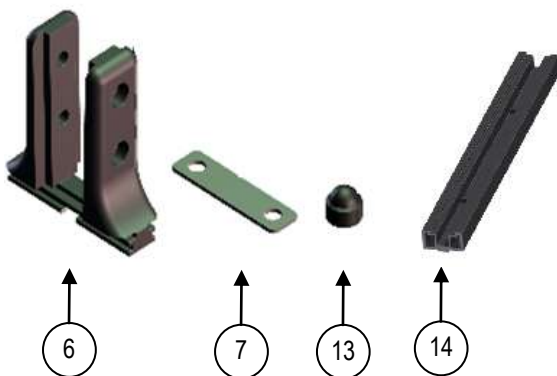
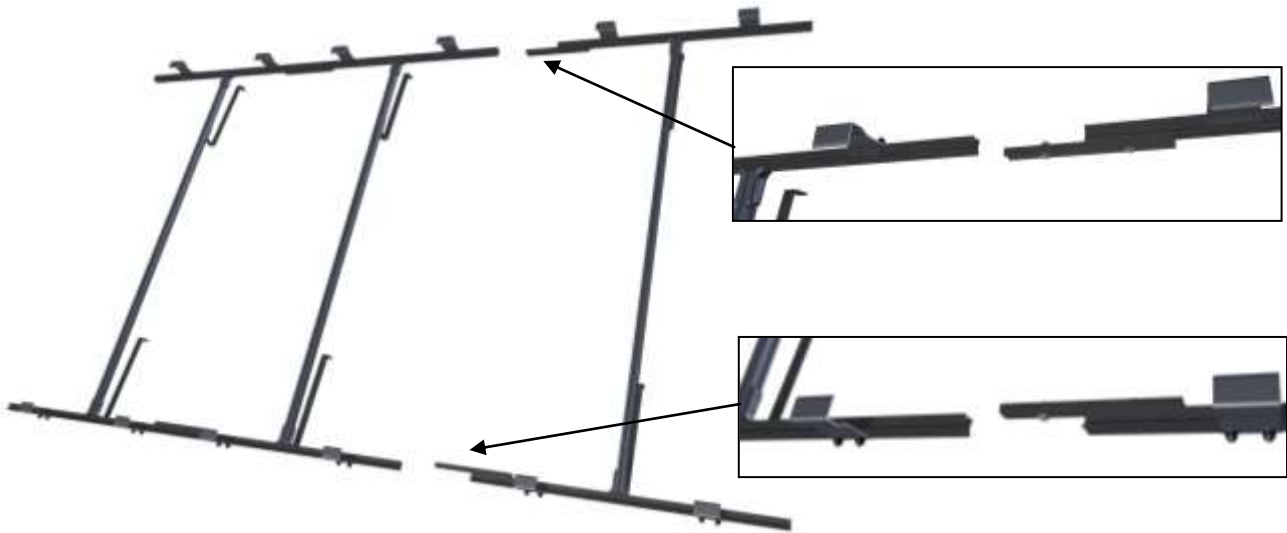


MANUAL OF INSTALLING KSAL-1 (KSOL-1) UNIVERSAL HANDLE FOR AN ADDITIONAL KS2000/2100/2300/2500/2600 COLLECTOR



| No | Name | Mount |
|----|--|---|
| 1 | Vertical profile (1930mm) | 1 |
| 2 | Upper horizontal profile: KS2000/2100 (1085mm) KS2300 (1190mm) KS2500 (1295mm) KS2600 (1362mm) |  1 |
| 3 | Lower horizontal profile: KS2000/2100 (1085mm) KS2300 (1190mm) KS2500 (1295mm) KS2600 (1361mm) |  1 |
| 4 | Collector grasper | 4 |
| 5 | Hook | 2 |
| 6 | Connector AI | 2 |
| 7 | Insert | 2 |
| 8 | Screw M6x40 | 4 |
| 9 | Nut M6 | 4 |
| 10 | Screw M8x20 | 4 |
| 11 | Washer Ø8 | 16 |
| 12 | Nut M8 | 4 |
| 13 | Nut cap | 4 |
| 14 | Connector | 2 |
| 15 | Screw M8x25 | 4 |
| 16 | Screw M8x14 | 4 |
| 17 | Square nut | 8 |
| 18 | Screw M8x16 | 4 |





The assembly of the KSAL-1 (KSOL-1) universal handle for an additional collector should be done similarly to the assembly of the KSAL-2 (KSOL-2) universal handle for two KS2000-KS2600 collectors.

The KSAL-1 (KSOL-1) universal handle is used to mount an additional KS2000-KS2600 collector on the base of KSAL-1 (KSOL-2) universal handle

Steps of the assembly:

1. Attach permanently the top hook holder (5) to the vertical profile (1), aligning its edge with the top edge of the profile and tighten the nuts.
2. After removing the necessary roof tiles, attach the bottom hook holder (5) to the lash using wood screws, leaving about 1085mm – KS2000/2100, 1190 mm - KS2300, 1295mm - KS2500, 1360mm – KS2600 of space from bottom hook holder of the KSAL-2 (KSOL-2) frame.
3. Insert the connectors AI (6) to the horizontal profiles (2 and 3).
4. Attach the vertical profile (1), adjusting its spacing to the previously attached bottom hook holders. Using wood screws attach the top hook holders to the lash. Tighten the nuts attaching the vertical profile to the bottom holder.
5. Attach the top horizontal profile (the one with less rubber washers) (2), and the bottom one (3) to the vertical profile (1). Attach the top (2) and the bottom (3) horizontal profiles with the frame of the KSAL-2 (KSOL-2) universal holder using connectors (14).
6. During the assembly, remove the upper collector graspers (4).
7. Place solar collectors on the rack with distance between them 85mm.
8. Put on and tight up the top graspers of the collector (4).
9. Using M8x16 screws (18) fasten the collector to the bottom graspers (using rivet nuts mounted in the collector).
10. Using M8x16 screws (18) fasten the collector to the upper graspers (using rivet nuts mounted in the collector).
11. Slide the collector to strictly adhere to the lower horizontal profile (3), screw tight the bottom graspers of the collector (8) and put caps on the nuts (13).
12. Push in and screw tight the upper graspers of the collector (4) and put caps on the nuts (13).

Additional information:

If the roof is covered with metal roofing tiles or bituminous material, the hook holders (5) should be modified by cutting off the hooks.

