

Assembly instructions

eltime carrier systems

version: 11.2017



Part list



Profile rail 20 x 20 mm



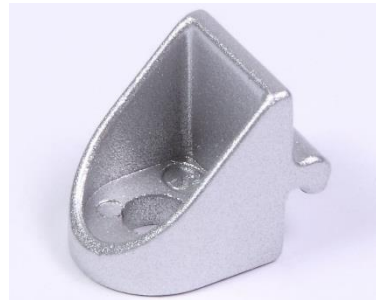
Profile rail 20 x 40 mm



Angle bracket

Cover cap for
angle bracketCap screws M5 x 8,
for angle bracket

t-slot nut



Angle clamp bracket



Lenshead screw M5 x 10

Allen key
3 mm

Large corner plate



Small corner plate



1/4" screw

Content

Part list	2
Content	3
Introduction.....	4
Intended use.....	4
Symbols	4
Assembly technology	5
Inserting the T-slot nut.....	5
Corner connections	6
Cross connections.....	8
Carrier system for experimental photography.....	9
Carrier system for bird photography.....	15
Carrier for insect photography.....	16
Notices	18

Introduction

Dear customer,
thank you for purchasing the eltima carrier system. It should be a flexible and reliable tool for you.

If you have any wishes and suggestions for improvement, do not hesitate and let us know. Thus this product can grow and meet your requirements.

Please read these assembly instructions carefully before using the carrier system. It will help you to familiarize with the structure and operation of this system. This way you can fully exploit the benefits it offers you.

Intended use

The eltima carrier system has been developed for the mounting and fixing of light barriers, light barrier accessories and other photographic accessories. Use it only for this purpose.

Symbols



Tips for handling the device.



Important note on the function of the device.



Important note to avoid damage to the device or connected devices.

Assembly technology

This section describes the basic handling and assembly methods of the carrier system.

Inserting the T-slot nut

Profile rails, angle brackets and corner plates are bolt together by the means of screws and T-slot nuts.

Place the T-slot nut with one edge ahead into the slot of a rail, like depicted in Figure 1.

Then press the nut completely into the slot, like shown in Figure 2.

Push the second edge of the nut into the slot. The T-slot nut is now in position, held by the spring-mounted ball of the nut, see Figure 3.



You can now move the T-slot nut to the right position by using a tool, e.g. the included Allen key.

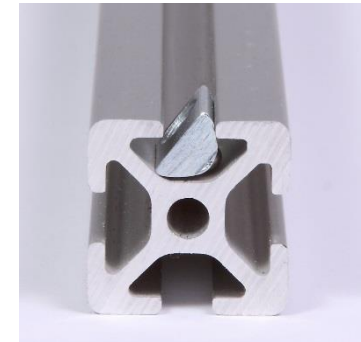
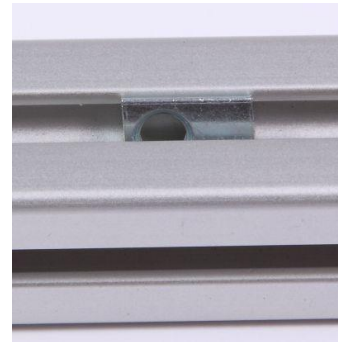


Figure 1: Placing the T-slot nut into the rail

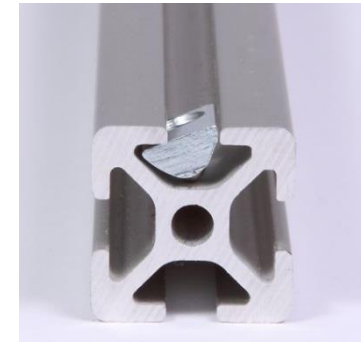


Figure 2: inserting the second edge of the nut into the slot



Figure 3: T-slot nut in position

Corner connections

Two profile rails are connected by the means of angle brackets.

At first, insert two T-slot nuts at the end of the slot, see Figure 6.



The two threads of the nuts should point to the ends of the rail. This is important, so that the angle can subsequently be pushed all the way to the end of the rail.

Screw the bracket firstly with the outer screw, by turning it 1 to 2 turns, so the bracket will still be loose, see Figure 5.

Then slide the bracket with the remaining hole over the second slot nut and also loosely tighten the second screw, see Figure 4.

Now push the angle to the end of the rail.

Figure 6:
inserting the T-slot nuts



Figure 5:
inserting the first screw

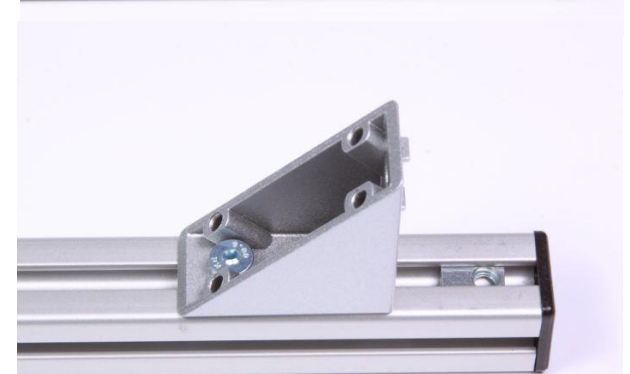


Figure 4:
inserting the second screw



Insert as shown in Figure 6 two T-slot nuts in the slot of the second rail. Screw the bracket as shown in Figure 4 on the second rail, but do not tighten the screws. The two rails are now loosely connected, see Figure 7.



Figure 7:
joining two rails

Slide the rails to the desired position and tighten the screws, see Figure 8.

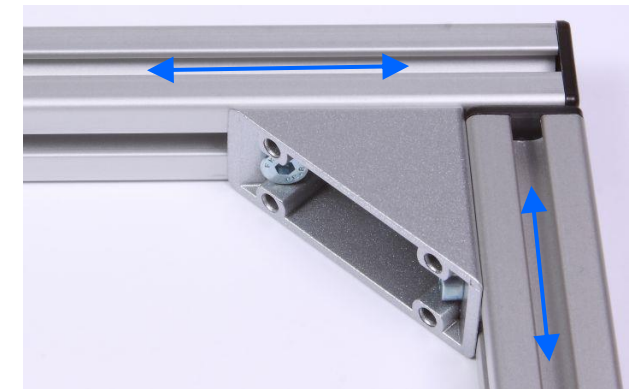


Figure 8:
aligning the rails

Insert the cover cap by pushing it firmly into the bracket, see Figure 9.



Figure 9:
tightened corner connection

Cross connections

Insert a T-slot nut at the desired position into the slot of a rail. Screw it loose into the nut using a M5x10 lens head screw, see Figure 11.



At first just turn the screw by one turn. The bracket will hang loosely and you can hook the rail easily into the bracket.



Figure 11: mounting the clamp bracket

Hook the cross profile into the bracket at the right position and tighten the screw, see Figure 10.



Figure 10: completed cross connection

Carrier system for experimental photography

Bolt up two assemblies consisting of one rail 20x40x600 mm and one 20x40x1200 mm, like shown in Figure 13.

The assemblies will form the support frames of the carrier system.

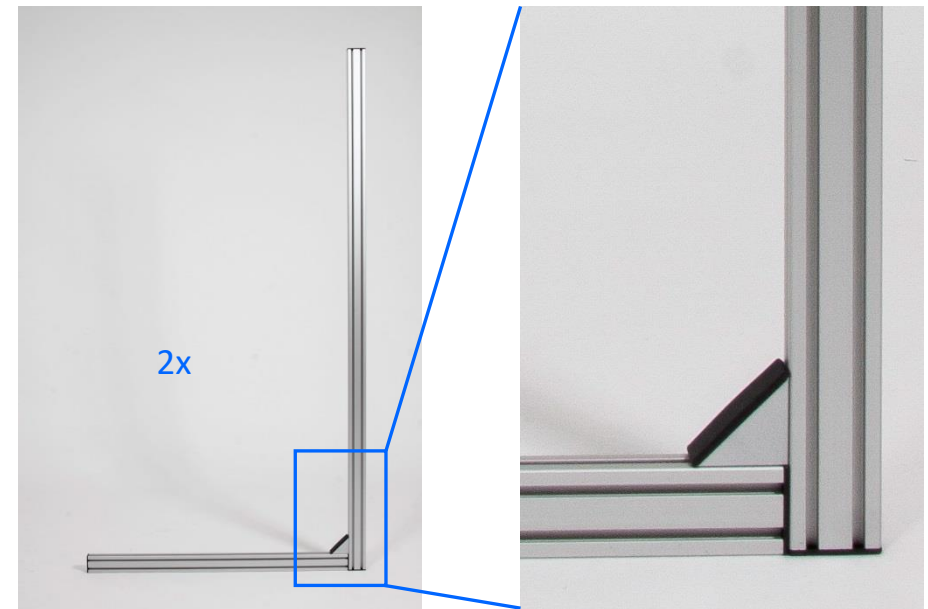


Figure 13: Aufbau der seitlichen Stützen

Bolt up three 20x20x600 mm rails to a frame like shown in Figure 12. The spacing between the vertical rail and the end of the horizontal rail should be app. 20 mm, i.e. breadth of a rail.

This will be the carrier for the light barrier, as far as needed.

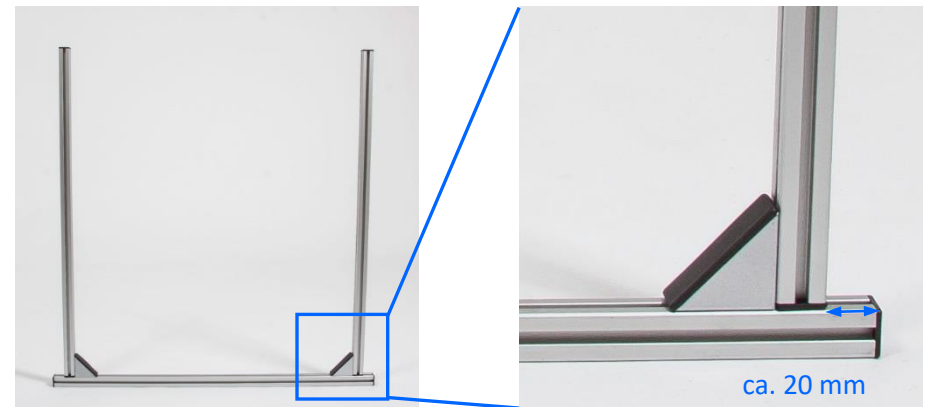


Figure 12: Aufbau des Trägers für die Lichtschranke

Bolt up two 20x20x600 mm rails and one 20x40x600 mm rail to a frame like shown in Figure 15. The spacing between the vertical rail and the end of the horizontal rail should be app. 20 mm, i.e. breadth of a rail.

This frame will form the carrier for the drop dispenser.

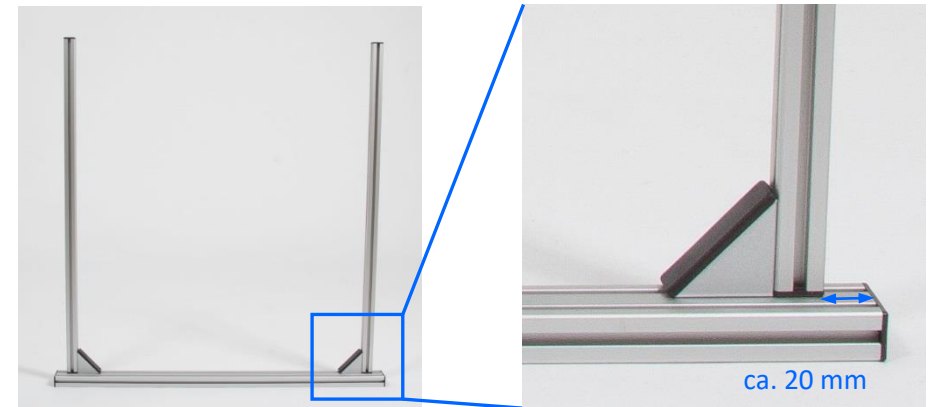


Figure 15: Aufbau des Trägers für die Tropfenspender

Bolt a 20x20x600 mm rail on the flushly mounted side of the drop dispenser frame, like shown on the right side of the Figure 14.

The clamp brackets must be mounted on opposite sides of the cross profile, see the left side of Figure 14.



Figure 14: Befestigung des Querprofils

Screw three angle clamp brackets loosely to the positions indicated in Figure 16, to both support frames.

The two upper brackets will fix the frame for the drop dispenser, the lower the one for the light barriers.

Hook the frame for the drop dispenser into the brackets of one support frame, like shown in Figure 17. One bracket must be hooked in the upper nut of the rail the other in the lower one, see Figure 18 left side.

Please take care that there is no gap between the rails, like shown in Figure 18 right side. This increases the stability of the system.

Figure 17:
hooking the frame for the
drop dispenser into the
support frame



Figure 18:
position of the angle clamp brackets

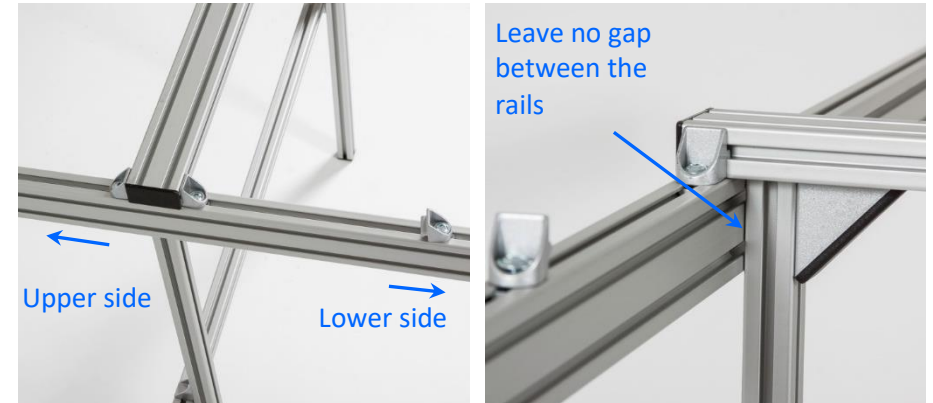


Figure 16:
details for hooking in the
drop dispenser frame

Now hook in the frame for the light barriers and tighten the screw, see Figure 19 left. The clamp bracket must be hooked in from the lower side of the rail, see Figure 19 right.

Please take again care that there is no gap between the rails.



Figure 20: hooking in the frame for the light barriers

Next hook in the clamp brackets of the second support frame and tighten the screws.

Pay attention that the two support frames must be positioned at the same level. To check this out, use a meter rule.



Figure 19: hooking in the second support frame

Mount the large corner plate on the lower side of the cross profile using 2 T-slot nuts and 2 lenshead screws, see Figure 21.

Mount the 2 small corner plates on the rails of the light barrier frame, like shown in Figure 22, by using T-slot nuts and lenshead screws.

The carrier system is now ready to use.



Figure 22: mounting of the large corner plate

Figure 21:
mounting of the small corner
plates



By loosening the screws of the clamp brackets you can reposition the frames or the corner plates to almost any position, see Figure 23.



Figure 23:
adjustment options of the
carrier system

Carrier system for bird photography

Assembly two 20x20x600 rails and one 20x40x1200 rail to a frame like shown in Figure 24.

Mont on the upper rail a small corner plate for the reflector, like seen in Figure 25.

Mont on the lower rail a small corner plate for the light barrier, like seen in Figure 26.

Mont on the lower rail a large corner plate for mounting the carrier on a tripod, like seen in Figure 26.

The carrier system is now ready to use.



Figure 24: ready to use carrier system



Figure 25: corner plate for the reflector

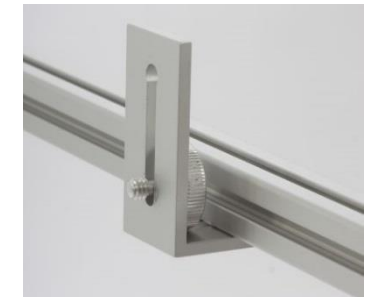


Figure 26: corner plate for the light barrier

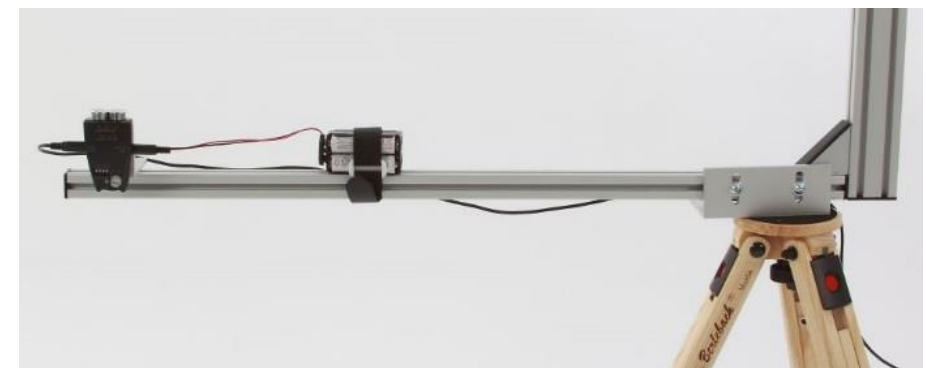


Figure 27: carrier system mounted on an tripod with installed light barrier

Carrier for insect photography

Assembly 2 20x20x600 rails and 1 20x40x600 rail to a frame like shown in Figure 28.

Set the distance between the two vertical rails according to your needs.

Mount the large corner plate in the middle of the 20x40x600 rail, like shown in Figure 29. It will be the support for the camera.



Put the large corner plate on the back side of the rail if you need more distance between the camera and the light barrier.

Mount the two small corner plates for the reflector and the light barrier at the ends of the frame like shown in the Figure 30 and Figure 31.

Carrier for insect photography

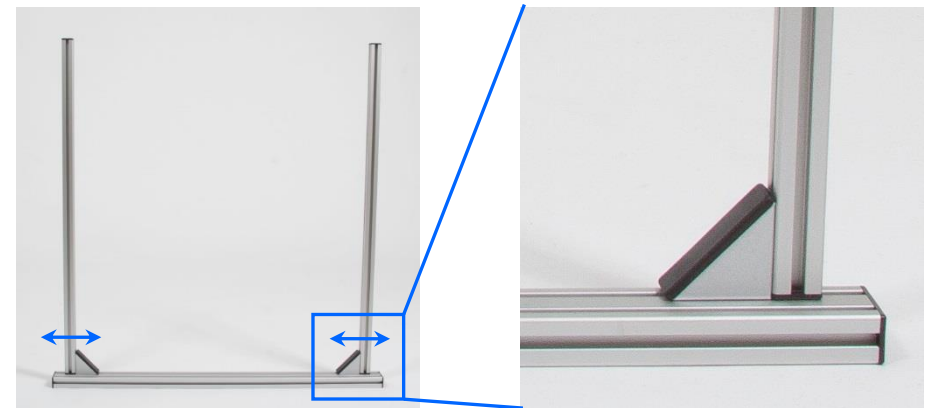


Figure 31: Frame for insect photography



Figure 30:
mounting of the large corner plate



Figure 29: corner plate for
the reflector



Figure 28: corner plate for
the light barrier

Optionally, you can mount 2 small corner plates for fixing flashes, Figure 32.

The carrier system is now ready to use.



The carrier system can be used by holding it in the hands. It can be carried to places where insects go to, like flowers or resting places, see Figure 33.



The carrier system can be used mounted on a tripod and installed in front of bee or wasp nests, like in Figure 34.

Carrier for insect photography



Figure 34:
ready to use carrier



Figure 33:
handheld usage



Figure 32:
usage on a tripod

Notices



High-Speed for Photography

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