



TRIAS installation and operating instructions

Installation TRIAS with a **127mm**, **152mm** bzw. **178mm** wheel

First determine the correct installation position of the TRIAS. In the landing position (see graphic 1) the wheel should be at the scale position of the man-carrying original. The wheel axis should be about 6 - 8 cm in front of the glider's center of gravity. Make a note of the position of the TRIAS frame and mark a flap section of **200 x 80**, **220 x 85** or **250 x 92** (mm length x mm width).

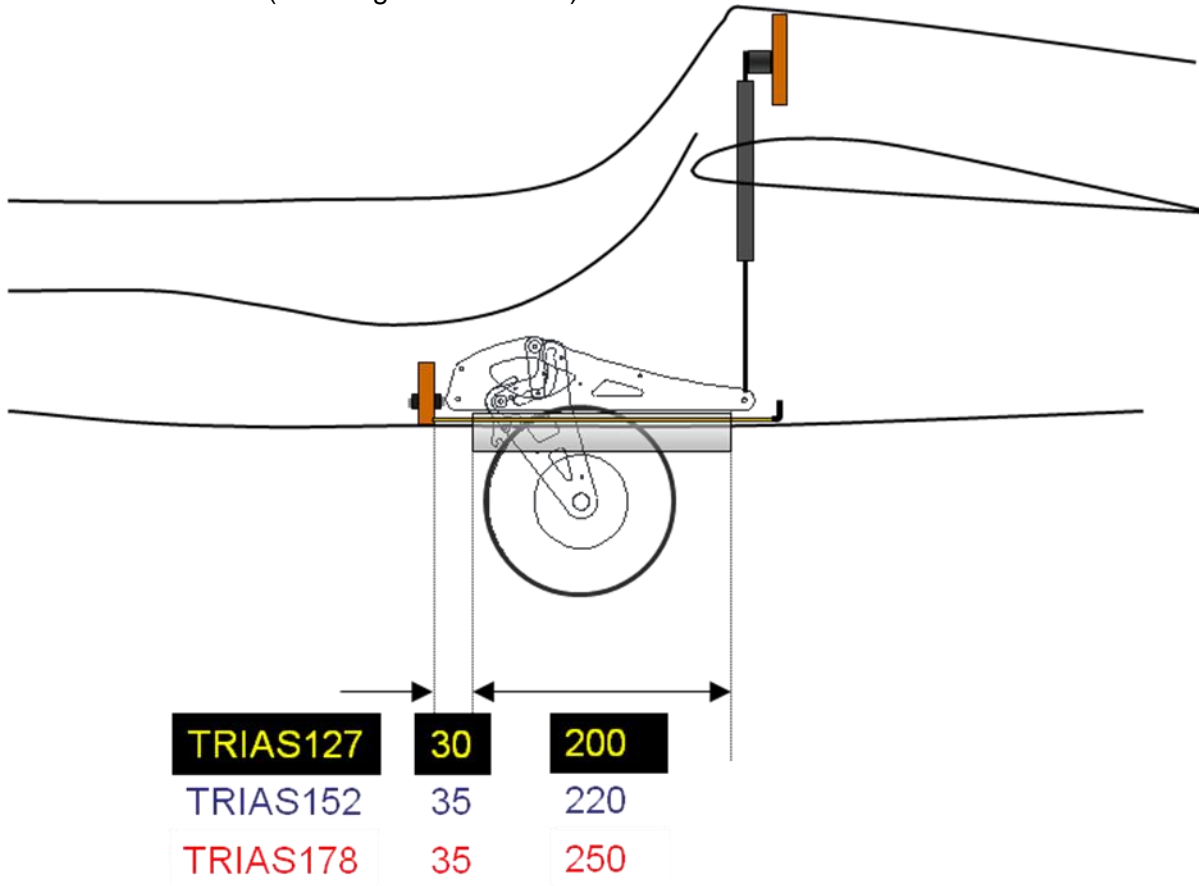


Figure 1: TRIAS in the landing position. Dampening to the back.

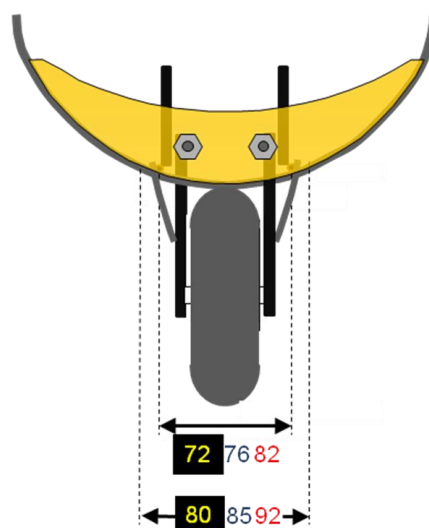


Figure 2: TRIAS in front view.

The flaps are cut out with an oscillating saw with a cutting width of 0.5 mm. The brass hinge tubes (internal diameter 2.2 mm) are attached in parallel at a distance of 72, 76 or 82 mm with epoxy fiberglass (see graphic 3). A steel wire with a diameter of 2 mm serves as the hinge wire. The fuselage opening will have a flap stop and the fuselage flaps will have a small hook for attaching a spring or rubber band. The installation must be dampened. The damping must be implemented backwards via a gas pressure spring. The two screws are anchored in the 12 mm thick front bulkhead. When damping upwards, the use of a rubber buffer is recommended. In principle, the rubber buffer provides more damping in load areas where the gas pressure spring does not yet respond.

Gas spring strength

With damping to the rear: Select the strength of the rear gas pressure spring according to the following rule of thumb:

Spring force (N) = model weight in kg x 10

Various gas pressure springs with a total length of 185 mm to 305 mm and a damping path of 60 mm to 120 mm are offered on the dr-martin-thoma.com website.

Operation

The TRIAS is operated via a 3-stage switch on the remote control. To do this, the three actuator positions must be programmed exactly.

When programming the 3-stage output signals, start with the values: -50% / 0% / +50%.

This prevents the actuator from being loaded beyond the movement limits. Then slowly adjust to the correct values by slowly approaching the movement limits. Do not move beyond the movement limits of the elongated hole because the actuator is very powerful.

1. In the retracted position, the rotary lever must be at the end of the elongated hole. (3-position switch above).
2. In the landing position, the white marking on the rotary lever must point exactly to the marking on the TRIAS swingarm (see picture 3 below – yellow arrow). The landing position of the TRIAS is only locked in this position! (3-position switch in the middle). This is important, otherwise the actuator will be damaged upon landing.



Picture 3: TRIAS in the landing position

3. In the starting position, the lever must be at the other end of the elongated hole. (3-position switch low).

After landing (3-stage switch in the middle position), before another KTW start, the plane should be lifted briefly and then the wheel should be moved to the start position (3-stage switch position below). Lifting is essential as the actuator/servo cannot perform this movement when the glider's weight is on the landing gear.

Always release the wheel brake before operating the actuator. The M3 brake connecting rod must not interfere with the lever in any position.