

Investigation into incidents involving the Paralock 3 paragliding carabiner

A total of at least five cases of unintentional openings have become known. (Germany, Switzerland, Austria, Italy)

- In two cases it is certain that the speed bar line has opened the release knob of the release lever (see '2. Incidents due to a loose speed bar line').
- The other cases are described in '3. Incidents due to the release lever not snapping shut and locking into place'.

The aim of the investigation was to find under what conditions the carabiner can open unintentionally and release the riser.

Findings:

1. Correct assembly

If the release lever (1) is engaged in the lower position with an audible click and the securing pin (2) has been locked (circle), it cannot be opened unintentionally. The release lever cannot be operated with the release knob (orange) in this configuration.

This configuration is specified in the operating manual for all operating modes.

Caution! In previous manuals, operation without a locked securing pin was permitted for single-seat gliders but not for tandems.



2. Incidents due to a loose speed bar line

A loose speed bar line was the cause of at least two of the reported incidents. The loose speed bar line wrapped around the release button of the release lever and, during subsequent acceleration, led to the activation of the release mechanism and opened the carabiner. The first incident was reported to the DHV on 21 June 2024 and led to a [safety note from Finsterwalder on 7 July 2024](#). The safety note stipulates that pilots may only use the Paralock with a locked securing pin. This applies to all operating modes of the carabiner. The second incident occurred on 20 July 2024.



Illustration from the Finsterwalder safety note from 7 July 2024

3. Incidents due to the release lever not snapping shut and locking into place

It is highly probable that at least three incidents were caused by the release lever not snapping shut and locking into place. Two incidents ended without major injuries due to the pilots throwing the reserve parachutes. The third incident was a fatal accident, leading to the death of an Italian tandem pilot. As a result, Finsterwalder published another [safety note on 22 November 2024](#).

The spring of the release lever is not strong enough to ensure that it always snaps shut and locks into place automatically. [This video shows a demonstration](#). If the pilot lets the release lever go after attaching the riser, the spring force is sufficient to allow the lever to snap shut and lock into place in the lower position. However, if the pilot leads the release lever down slowly, it will not snap shut and lock into place by itself. In this case the pilot must move the release lever manually into the locked position.



Release lever not snapped shut and locked into place.

In this video freeze frame, you can see that the line of the speed bar is pushing the non-locked release lever. As the flight progresses, the speed bar line opened the Paralock 3. The pilot landed with the reserve parachute.



Pilots can push the securing pin into the locked position, even if the release lever is not snapped in. However, it then does not connect to the release lever and therefore does not secure it. Instead, the securing pin blocks the release lever in an unlocked position, where it is no longer able to snap shut and lock into place. The release lever remains completely unsecured. A little force, for example a steering movement, the line of the speed bar or low loaded lines after a collapse can move the release lever upwards unintentionally with little force and thus release the riser.



4. Summary

There is no indication that the Paralock 3 paraglider carabiners are not safe to operate when properly locked and secured (according to the manual). However, it is obvious that the handling of the Paralock 3 is susceptible to operating errors.

Please be aware of the following points:

1. The pilot must often move the release lever manually into the locked position, as it does not always snap in and lock automatically.
2. If lines are looping around the release knob and these lines are then getting tension/load, the release knob can open. With an unlocked securing pin, this can lead to an opening of the carabiner.
3. There is no option for the pilot to visually make sure if the securing pin is open or locked. The securing pin has no visual control to inform the pilot of the open or locked state.
4. Due to the delicate design of the securing pin, its operation requires increased attention, especially when wearing gloves.
5. Pilots can close the securing pin even if the release lever is not snapped shut and locked into place. This leads to the release lever being completely unsecured and able to easily open unintentionally.

5. Recommendations for users of the Paralock 3

The quick-release function of the Paralock 3 requires a complex mechanism. Users of the Paralock 3 must familiarise themselves thoroughly with its functions and possible operating errors. They must conduct the necessary checks consistently and thoroughly before each flight. Pilots may only use the Paralock 3 if the release lever is snapped shut and locked into place and the safety pin is locked. This must be checked thoroughly by making sure that the release lever cannot be opened with the release knob. Always follow the operating manual!

Dangerous operating errors have occurred repeatedly and are not only isolated cases. The reported incidents show that they cannot be ruled out. According to the manufacturer a design and construction improvement is in progress, and it will be possible to retrofit the previous version of the Paralock 3.

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Karl Slezak

DHV Safety and Technology