

Unlocking a seat belt inertia reel - RV8NOTE329



Mechanism exposed. The metallic item, top right in the blue area, is the main inertia catch. The grey/pink cup bottom right in the blue area is the "tilt sensing" device and the pink lever above it is the catch that rests in the cup when the reel is unlocked. (Photo: Erik Persson)

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When removing the seat the belt on his RV8, Erik Persson in Sweden found the belt completely rewound back onto the reel. Extending the belt proved impossible as the inertial lock appeared to have engaged and the belt could not be rewound further to get the lock to release. How did Erik solve the problem? (June 10)

Remember that a functional seat belt is vital for your safety, so when working on the unit take extreme care not to damage any components in the reel mechanism. Avoid if at all possible opening up the reel mechanism. As I could not see how to get the lock to release, I opened the reel to try and solve the problem and in the process learnt a few things about the reel which may save someone from having to do that should they find themselves with the same problem.

There is a mechanism in the inertial roll that will prevent it from unlocking if the belt roll is not level with the ground. This makes sense if the car rolls and comes to rest on the side or upside down. This means that my problem just may have been solved by itself had I just refitted the inertia reel to the car. To check with the reel out of the car, orient it in the same way as it would in the car. As some tugging on the belt will be required, it is advisable to use a vice or similar fixing point to stabilise the reel.

So try if at all possible to use the method above if you should find yourself in this predicament. However if that does not work, this is how I released the inertia lock on the seat belt reel.

1. Find a three winged screwdriver or bit. I have not managed to find a proper designation for the type of screwdriver but I found a 50 piece security bits set at a big hardware store for about EUR 10 that had three winged bits in the set.
2. Remove the larger of the two plastic end caps. It is only secured with one three winged screw and a snap fastener. Do not remove the smaller end cap piece with the text "DO NOT REMOVE" as that one covers the spring.
3. Gently help the pink plastic thing to release. Note that it needs to slide into a cup-formed thing that sits on a spring - this is the "tilt sensor device". The belt arrestor should disengage and the belt can then be pulled out. Make sure the belt cannot retract again - I tied a wire strap around the belt.
4. Refit the end cap.

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