

Hard Housings

in Main Risers Not Fool-Proof

by Mike Gruwell

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Over the last few years, hard housings in main risers have become a mainstay of the skydiving industry. The hard housings fit into a fabric channel on the back of each rear riser and the excess cutaway cable is slipped inside the housings. The hard housings, either plastic or metal, are designed to reduce the pull force on a cutaway during severe line twists that pinch the risers.

Older riser designs only have a fabric channel. As parachutes became smaller and line twist malfunctions more severe, cutaways became harder. Many manufacturers added hard housings to riser channels. The housings take pressure off the cable ends when line-twist malfunctions include twisted risers.

While this solution to the riser twist problem is a great idea when assembled correctly, there are a few issues with the hard housings that can make a cutaway harder or impossible.

The first issue is hard housings that are loose and slip down through the 3-ring riser loop. Make sure the housings are secure on the back of the risers. If a housing ever gets lodged inside the main riser 3-ring loop, a cutaway will be impossible.

The second issue is a cutaway cable that is longer than the hard housing. If the end of the housing is not capped, it sticks out of the top of the housing and can still get pinched during riser twists. If the riser housing is capped, then a long cutaway cable can get kinked between the bottom of the riser housing and the top of the main cutaway cable housing.

A rigger should catch these first two issues during rig assembly, maintenance or the inspection/repack of the reserve parachute and harness/container. These types of issues are why leaving your main with your container is a good idea when dropping off your rig for an inspection/repack.

The last issue can occur in-between reserve inspection/repacks. When the excess cutaway cable is placed in the back of the riser, it is possible to slip the cable in-between the housing and the fabric channel if a

skydiver is not careful. Some manufacturer setups are easier to do this on than others. Right is an example of the space



between the housing and the channel on a Wings riser. It is also easy to do this on a Javelin riser.

When switching out main canopies or reinstalling your cutaway cables after cleaning, it is important the cutaway cables and risers are reassembled correctly. If in doubt, see a rigger.

Lastly, keep in mind the riser housings, if used and maintained properly, only solve one type of hard cutaway problem. Hard cutaways also occur due to dirty cutaway cables. Keep your cables clean and lightly lubed with spray silicone. Most riggers keep spray silicone in their rigging kits or loft. You can also purchase your own spray silicone from a hardware store.

Spray your cables down once a month and wipe the cables down with a clean paper towel or cloth. The cables should be clean with a thin coating of the silicone. Finally, reassemble the risers correctly and make sure the excess cables are slipped inside the housings.

Note: Mike Gruwell (FAA Master Rigger) of Chuting Star Rigging Loft writes and edits for several media outlets. Mike's background is in the newspaper industry. He currently writes for Skydiving Magazine as well as the weekly Rigger Rant and Rave. The latter weekly articles focus on issues, events and developments within the parachute rigging, skydiving and pilot industries. He is also an AFF Instructor, Tandem Instructor, PRO-rated demonstration jumper, Safety and Training Advisor, high-performance canopy pilot, Skydivegear.com manager, freefall photographer and skydiving coach. And more... he's a member of a competitive 4-way formation skydiving team, 8-way formation skydiving team and a canopy swooping team.