

IS MY RIG FREEFLY FRIENDLY?

IMPROPER FIT
LATERALS TOO LONG AND/OR LEG STRAPS TOO LOOSE



IMPROPER FIT
HARNESSES RIDING UP



LEG STRAPS SLIDING

by Mike Gruwell

So you've decided to delve into the realm of freeflying, but you've bought a used rig that's just a tad big on you and one main-riser cover always opens during exit. Are those things a big deal? Probably. Can they be fixed? Maybe. Will you have to buy a whole new setup? Not likely.

Let's take a look at a couple of things to consider before subjecting your body to the possibility of a premature opening at 150 mph.

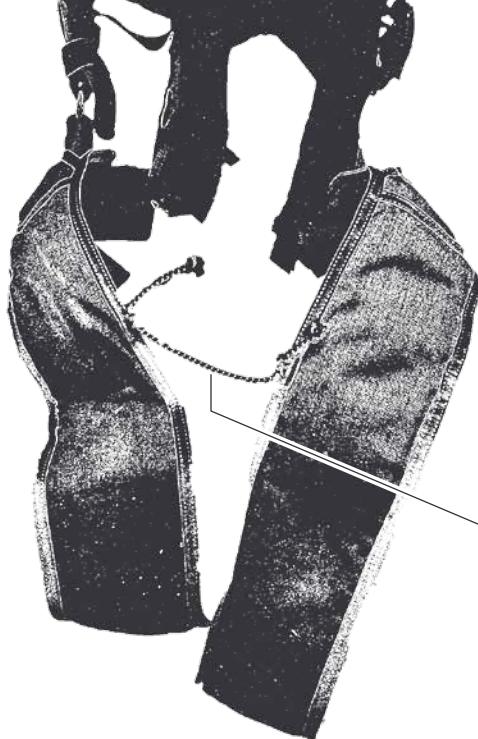
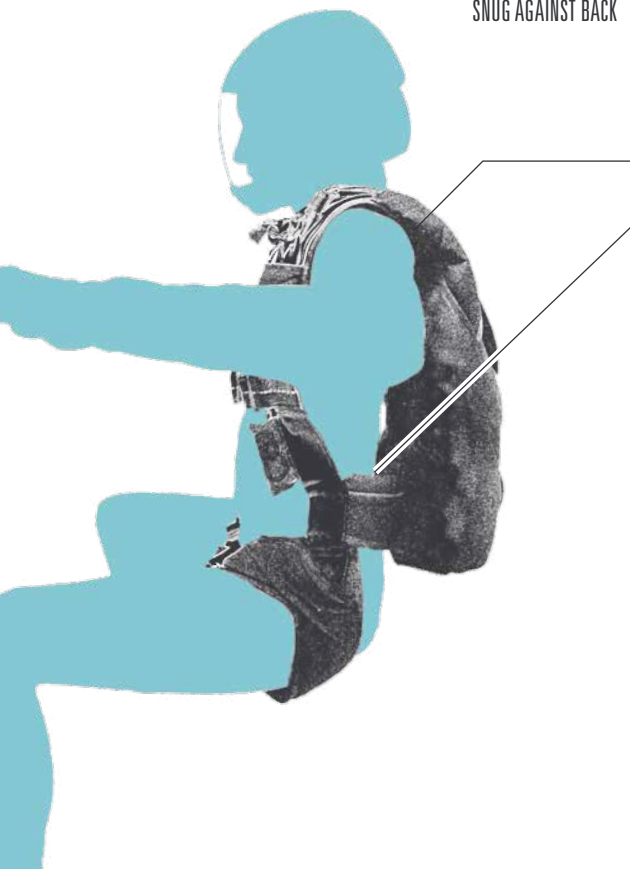
FIT

It's more crucial that your harness fits you appropriately now that your body will be moving around the sky in a multitude of positions. Throughout a freefly dive, you will expose all sides of the rig to the relative wind at some point. If the rig doesn't fit you properly, the wind can push the rig from side to side, down your legs or up your back. At a minimum, this can affect your ability to learn new freefly skills. At worst, this can put you in the dangerous position of coming out of your rig.

If a manufacturer did not custom make the rig to your measurements, make sure someone knowledgeable about gear fitting (usually a dealer, rigger or instructor) takes a close look at how your container fits you when all geared up. This includes how much the rig and harness can move around on your body, especially in the sit-fly position.

Also, are you properly adjusting and tightening your leg straps and chest strap? Surprisingly frequently, skydivers complain of their leg straps slipping or their chest straps ending up near their throats on opening, but oftentimes a quick tutorial on proper strap adjustment solves the problem. Leg straps are not meant to be loose, and the rig is not supposed to wash around on your back.

PROPER FIT
SNUG AGAINST BACK



POSSIBLE FIX
FOR SLIDING
LEG STRAPS

BUNGEE BETWEEN
LEG STRAPS

Sometimes you can solve minor fit issues that you couldn't fix through proper strap adjustment by having your rigger make harness, leg-pad or leg-strap adjustments. Some of these fixes cost only a couple hundred dollars, but some will cost much more. Talk to your local rigger if your rig's fit is an issue to see what can be done. On the extreme side, if you can't achieve a proper fit through adjustments, you'll need to get another harness-and-container system that fits you properly and move your current canopies and automatic activation device into it.

If the rig fits you and you've adjusted it properly but the legs straps still slip down your legs in some freefall positions, you can tie your leg straps together in the back. (If your rig is simply too large for you, this fix will not be an adequate solution.) Put the rig on and tighten all the straps as if you're about to jump. Then have someone take a pull-up cord or bungee through the back of the leg straps and tie it. Some rigs even have small loops on the back of the leg straps for this purpose. This simple solution can keep your leg straps from sliding down the back of your legs when you're in certain sit-fly and back-fly positions.

CONDITION

Starting from the bottom of the rig, first check to see if your bottom-of-container pilot-chute pouch is in good condition. It should hold your pilot chute securely. Check for holes in the pilot-chute pouch, as well as the condition of the elastic mouth of the pouch.

Your pilot chute handle is not automatically appropriate for freeflying just because it's the low-profile, rectangular handle known as a "freefly handle." Some of these handles use the pressure of the closed main container and the side flap to stay in place. If your main is oversized or undersized for the container, it can affect the security of that handle. Check to see that your handle is secure when the rig is packed and that it will stay stowed until you are ready to deploy.

Is your pilot chute made of F-111 or zero-porosity fabric? An F-111 pilot chute is less likely to come out of the pouch if bumped or if you apply pressure to it when sitting in the plane, because the fabric isn't as slippery as zero-P. However, if your pouch is in excellent condition, it will hold either type of pilot chute adequately.

The container's side flap should entirely conceal the main-pilot-chute bridle, or Velcro should secure it down to the point it reaches a flap or protector. Any exposed or unsecured main bridle is not friendly to freeflyers, since it can lead to a premature deployment.

Your main closing loop needs to be the proper length and in excellent condition. Once you notice any fraying, you should replace it. On most rigs, a properly sized main closing loop will not allow the lower grommets of the container flaps to be visible when the main container is closed. Undersized and oversized canopies can affect the ability of the main container to close securely. See your local rigger, consult the owner's manual or call the manufacturer if you have any questions about closing-loop size and the security of your closed main container.

IS MY RIG FREEFLY FRIENDLY?

Your main-pin-cover flap should be secure and should not open easily. Is the stiffener in good condition? If Velcro secures your main-pin-cover flap, is it in good condition? You should also look at and address the same items for your reserve-pin-cover flap.

Your main riser covers also need to stay securely in place. A tuck flap that seems secure when the rig is not on you can sometimes pop open when you put the rig on and tighten down the straps. This can be due to your upper-body size in relation to the harness size. (If your upper body is too big for the yoke size of the rig, it can cause the tuck tabs to pop out.) Worn out tuck tabs or Velcro or missing or broken magnets can also cause the riser covers to open when they shouldn't. Sometimes your rigger can fix this problem by installing new tuck tabs or by packing the reserve with more of the material lower in the freebag (so the bulk is farther from your shoulders).

If your riser covers pop open because the stiffeners are broken or warped, get the stiffeners replaced. If your rig uses Velcro to keep the riser covers closed, you must keep that Velcro in nearly brand-new condition to ensure your risers stay put in freefall. If your magnets are broken or missing, have them replaced. These are all easy fixes.

Your cutaway and reserve handles must be secured with Velcro that is in great condition. Pull on your cutaway handle on the ground. Does it take a bit of force to get it off the Velcro? Make sure the Velcro is completely mated up between the handle and the pocket.

Check your reserve handle's Velcro, too. Some of the smaller main lift webs tend to push the bottom of the D-handle out of the pocket when jumpers are in positions such as the sit, so if your rig has a D-handle, the two sides of the Velcro should mate around the handle and keep it secure. If your rig has a pillow reserve handle, you still need to make sure that the Velcro mates properly. Whichever handle you use, you should have to use a bit of force to pull it from the pocket.

PRACTICAL CONSIDERATIONS

If you're just starting to learn how to back-fly, sit-fly or hold a head-down position, you don't need to get a soft reserve handle immediately. As long as the D-handle is secure in its pocket no matter what freefly position you're in, you can stick with it in the beginning. But as you start working on docking, grips and linked exits, you'll need to exchange it for a low-profile D-handle or soft reserve ripcord handle to reduce the chance of a foot or hand getting caught in the larger D-handle and causing an accidental reserve deployment.

If you have a harness-and-container system that fits you properly, is in good condition and closes securely, then continue on your path to freefly godhood! If your harness and container doesn't fit you properly or it's not in freefly condition, get it fixed. If it's not possible to fix it, then you need to buy another system—new or used—that meets your requirements. If you like the canopies and AAD you have, a rigger can move them to your new container as long as the container is sized to fit those canopies and AAD. This would be the second-cheapest way to solve fit or condition issues that your rigger or manufacturer can't repair.

Lastly, whether your rig is new or used, it is important to maintain it and keep an eye on the condition of the parts that can easily wear out or break. At a minimum, regularly check these items:

- ▶ Bottom-of-container pilot-chute pouch
- ▶ Main closing loop
- ▶ Main and reserve flaps
- ▶ Main-riser covers
- ▶ All magnets, stiffeners and Velcro

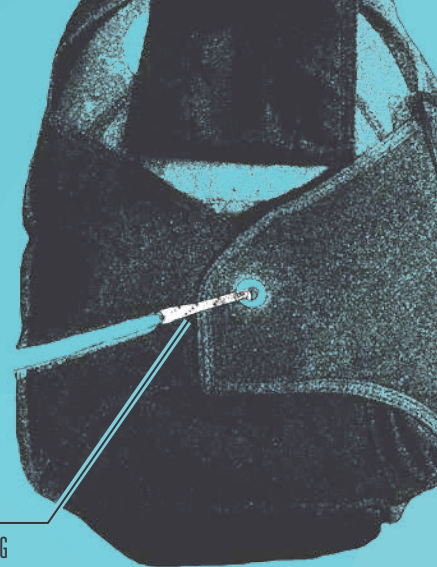
Now go work on those freefly skills! And get some coaching too!

ABOUT THE AUTHOR



Mike Gruwell, D-19956, is a Federal Aviation Administration Master Rigger and Designated Rigger Examiner and is the CEO of skydiving equipment retailer ChutingStar in DeLand, Florida, and Marietta, Georgia. Gruwell also holds a USPA PRO Rating and is a tandem and AFF instructor.

CLOSING LOOP TOO LONG



RESULTS OF
CONDITION
ISSUES OR
POOR PACKING

EXPOSED RISER

OPEN MAIN PIN FLAP



EXPOSED BRIDLE,
LOOSE B.O.C. POUCH