Leg Pouch Pilot Chute System

User Manual

Version 1 – Sep 2008

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Disclaimer:

The following information must be read and understood before any use of this equipment.

The user knows the risks of skydiving and accepts that:
Skydiving causes deaths and serious injuries. Many of these deaths and injuries can be attributed to equipment malfunctions. Skydiving equipment can fail, even if the user takes all possible precautions.
Failure to open the main or reserve parachute (or to follow emergency procedures) at a safe altitude, and/or equipment failures can result in severe injury or death.
It is the user's responsibility to:

- Receive proper training before any use of all skydiving equipment.
- Be extremely careful and cautious.
- Read and understand all owner's and operations manuals for all skydiving equipment.
- Check all skydiving equipment and replace any defective or worn component prior to use.
- Review emergency procedures before each use of this and all skydiving equipment.
- Check equipment warnings - do not exceed equipment limitations.
- Never violate the training and experience requirements for the specific equipment in use.

Because of the unavoidable dangers involved in the use of this and all parachute equipment, Phoenix Fly (including, but not limited to, all owners, officers, staff and employees) makes no warranties of any kind, expressed or implied. It is sold with all faults and without any warranty of fitness for any purpose. By using this equipment or allowing it to be used by others, owner/buyer waives any liability of Phoenix Fly for personal injuries, death or damages from such use. Any promises or representations inconsistent with, or in addition to, this statement of warranty are not authorized by Phoenix Fly and shall be not binding. If any customer of Phoenix Fly suit declines to waive liability on the part of the manufacturer or authorized Phoenix Fly dealer, the customer may have a full refund of the purchase price by returning the wing suit before it is used. Return the suit to the manufacturer or authorized dealer within 21 days from the original date of purchase. Skydiving and wingsuit flying are high-risk activities which may cause or result in serious injury or death.

DO NOT attempt to land a wing suit without a fully inflated parachute.

1. Introduction to Using the leg pouch deployment system

Original format taken from:http://www.interone.net/learn/basepc.html

The following is a description for the recommended method to use the leg pouch deployment system found on Phoenix Fly wingsuits. This includes the installation of the shrivel flap and techniques for pilot chute folding.

The leg pouch pilot chute pouch was created to give wingsuit BASE jumpers an easier pull. When jumping the larger wingsuits (Vampire etc) there is the chance for the arm wing to cover the BOC on a rig. With the leg PC pouch the handle is conveniently located at your finger tips when you close your wings. It can make finding the handle easier and safer.

Whilst it is recommended to practice using the leg pouch in the skydiving environment it is **STRONGLY RECOMMENDED TO <u>NOT</u> USE IT** for flocking, back flying or acrobatic flight.

The leg pouch is best reserved for solo skydives in preparation for BASE jumping and not for everyday skydiving use.

<u>For normal BASE jumping we STRONGLY RECOMMEND using a separate bridle with out the shrivel flap (i.e. get an extra bridle for when you are not using the leg pouch).</u>

2. Assembling the leg pouch deployment system

The shrivel flap on the leg pouch system keeps the bridle in place until deployment and then "shrivels" up to allow the bridle to pull the pin on the container. The shrivel flap is held in place by Velcro.

The bridle shrivel flap works the same way as the closing flap on a Velcro BASE container.

"Why does it need to shrivel?"

We are all familiar with Velcro but it might be a good opportunity to look at it again to make a simple test.

Mate the shrivel flap on the suit Velcro and pull upwards on one end of the shrivel flap, the Velcro should peel quite easily. Now try the same test but pull the shrivel flap towards the bootie of the suit, it should be much harder this time, probably requiring you to hold the suit in place. Why? Because Velcro is strongest when we try to shear it (i.e. drag the 2 layers over each other).

When the PC inflates in turn pulling the bridle it applies shear to shrivel flap attached to the bridle – so we need the shrivel flap to "shrivel" to reduce the pull force required to release the Velcro. If we fail to attach the shrivel flap to the bridle in the correct way it could cause a pilot chute hesitation. The photo below shows the shriveled flap half way through a simulated deployment:

It is for this reason that the shrivel flap is attached to the bridle at the end **closest** to the rig – so that it can shrivel up. Refer to the photo below:

PC end   Rig end of bridle

Installation:

To start:
- attach the suit to the rig in the normal way and then look to see if the Velcro strip on the pouch sits under the rig lateral
- If yes it is better to use the piece of blank Velcro supplied to cover this section of the strip to protect your rig from becoming damaged by abrasion with the Velcro. See the photo below for a photo of the blank Velcro in position.

Photos showing the blank Velcro strip in position, with the rig pulled to the right for clarity.

The shrivel flap should be **permanently** installed on the bridle. If you do not attach the shrivel flap to the bridle it can move freely and could cause a pilot chute in tow malfunction.

To install:
- Thread the bridle through the **inside** of the shrivel flap, removing any twists, mate the shrivel flap to the Velcro on the suit, leaving a small gap at the open end of the pouch.
- Stow the bridle on the rig in the regular way. Remove the slack bridle that remains between the bottom of the rig and the shrivel flap by pulling on the PC end of the bridle.
- Use a tailors pin or a needle to temporarily attach the pin end of shrivel flap to the bridle.
- Now simulate deployment by pulling on the PC end of the bridle, ensure that the shrivel flap completely separates from the suit Velcro before any tension is applied to the bottom pin, as shown in the photo below:

- If tension is applied to the pin before the Velcro has completely peeled then a pilot chute in tow could occur. If this is the case, leave more bridle between the pin and shrivel flap and repeat the test.

- Leave a few centimeters of extra bridle between the shrivel flap and rig, as this will allow you to bend over with the suit on without peeling the Velcro.

The exact distance between the bottom pin and the end of the shrivel flap depends on many variables, such as your height, rig type and wingsuit model. The gap left on the suit used in this example is 42cm (16.5") - pin attachment to stitching, as seen in photo below. The distance that should be left for your setup will most probably be different.

Once you have found the correct distance you can attach the **pin end** of the shrivel flap to the bridle using a bar tack or by hand using a suitable strong thread.

If attaching the shrivel flap to a skydiving bridle with a kill line it is possible to stitch either side of the kill line so that the collapsible PC continues to work in the normal way.

The excess bridle between the top of shrivel flap and corner of the container can easily be stowed inside the BOC pouch.
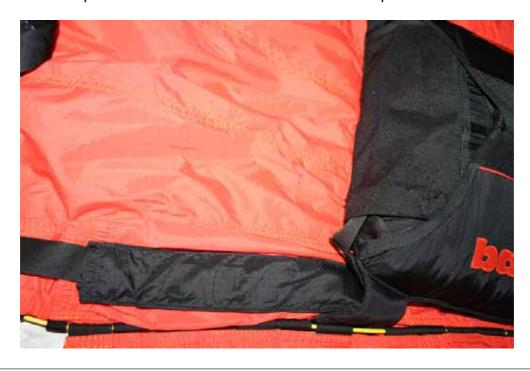
Packing Instructions:
Step 1: Remove any twists from the bridle and attach the shrivel flap to the suit Velcro, leaving a small gap at the open end of the pouch.

Step 2: Stow the bridle under the side flaps of the container in the normal way. Any excess bridle between the shrivel flap and container can be stowed in the BOC pouch.

Step 3: Ensure there are no twists in the bridle and then proceed to make a mushroom PC pack job, lie the mushroom down as shown.

Step 4: S-fold the mesh inside the PC and then continue to S-fold the bridle, leave about 12cm - 14cm (5" - 6") of bridle exposed to insert inside the pouch with the PC.

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Step 5: Wrap the mesh around the bridle.

Step 6: Cover the mesh & bridle with the other side of the PC and roll in each side to make a long thin pack job.

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Step 7: Insert the folded PC into the pouch and check that it slides out with a reasonable amount of pull force. Varying the length / thickness of the PC pack job can regulate the pull force required. Too tight and or too loose can both be problematic.

Other Considerations: Prior to exit always check the position of the PC handle, bridle and shrivel flap.

Always throw your pilot chute vigorously to ensure it clears the burble behind your body.

NOTE: As stated previously it is strongly recommended to use a different bridle without the shrivel flap for normal BASE jumps. Never stow the shrivel flap under the closing flaps of the container.

End

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