Viper-C

HARNESS

OWNER / SERVICE MANUAL

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Contents

1. Introduction

Viper-C is our new competition harness. Viper-C design is based on the design of its predecessor Viper-S. It retains the best features of Aeros Viper-S harnesses and combines them into a design that offers a super clean aerodynamic profile, reduced frontal area, and increased storage. The Aeros Viper-C will provide you with competitive performance and superior comfort, whatever the duration of your flight will be.

The main feature that differ it from the conventional Viper harness is its comfort. Due to the new design of the harness the Viper-C is much more comfortable in flight. Now, with the new Viper C, a long cross country flight is not a problem any more. You will no longer be forced to take discomfort-based decisions as to your flight duration.
Viper C has a different outer shape which, together with the innovative back plate, makes the harness aerodynamically cleaner. The new design back plate has honeycomb filler inside. The back plate is rather wide and long. For bigger sizes of the Viper C (for taller pilots) the back plate may consist of two parts, with the rear part easily detachable for transportation, if needed. The Viper C has thee kick-ass mechanism for adjusting the angle of attack of the harness , but there is no pressure on your feet in flight anymore due to the different slider design.

2. Features

Note: The Viper-C design is based on the Viper-S design. As a result some of the photos in this manual will be of the Viper-S if we determined they better illustrated the design.

The Viper-C harness, utilize a carbon fiber back plate. The back plate has different design with honey-comb filler inside, which makes the harness lighter while retaining the same ultimate strength.

The Viper-C has optional Matrix cloth outer skin for further drag reduction. This cloth has been proved in the wind tunnel to be the most ‘slippery’ available at the moment. With the Viper series you are able to replace the entire outer matrix cloth covering anytime with a new one.

Employing a lever system, the Viper-C pilot is able to easily adjust the pitch (the angle of attack) of the harness in flight with his butt without taking hands off the base bar.

The lever system is adjustable on the ground. Making the pitch adjusting rope shorter or longer it is possible to adjust the pilot’s maximum angle of attack. To do so you have to undo the knot on the rope, adjust it and tie it again.

We suggest that you would trim the rope to the position, where the maximum possible angle of attack is achieved, which gives you slightly head up position when thermalling (+1 - +4 deg).

The Viper-C comes in two options: with dual parachute containers (one on each side of the harness) or a single parachute container with a storage container on the opposite side of the harness. In the storage container you can fit a radio, a camera or a back-up GPS. There is room for the drogue chute in the pocket in the aft part of the parachute container or in the storage container.

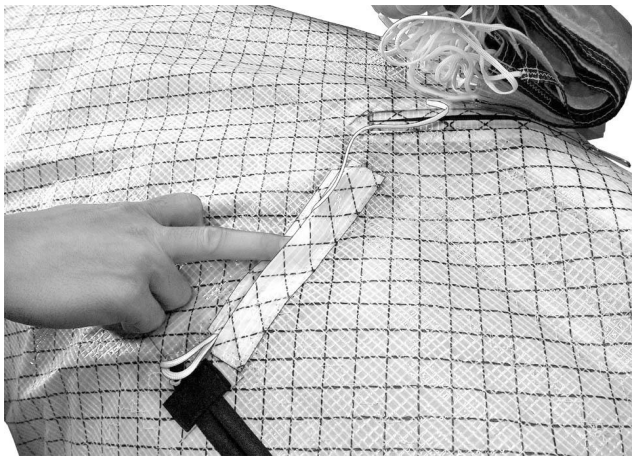
The **drogue chute** pack up procedure is shown on the pictures bellow.

1. Attach the drogue chute bridle to the loop inside the pocket. Fold the canopy of the drogue chute and put the drogue chute bridle inside the flap for creating less friction during the drogue chute extracting:

2. Enclose the canopy of the drogue chute inside the pocket:

3. Making sure the pull-out handle is outside, close the zipper:

There is a possibility of attaching the drogue chute bridle to the loop next to the main hang strap, same as on the previous Viper models:



Rescue parachute

Depending on the option you chose from the order form when ordering the harness the Viper-C has a possibility to connect a rescue parachute bridle in two ways:

- Standard attachment to the carabiner;
- Attachment to the harness. In this case the steel carabiner with max load of 5000 kg should be used:

To secure the parachute container proceed as shown on the pictures below. Please note that the pictures may be slightly different from the actual look of your harness.

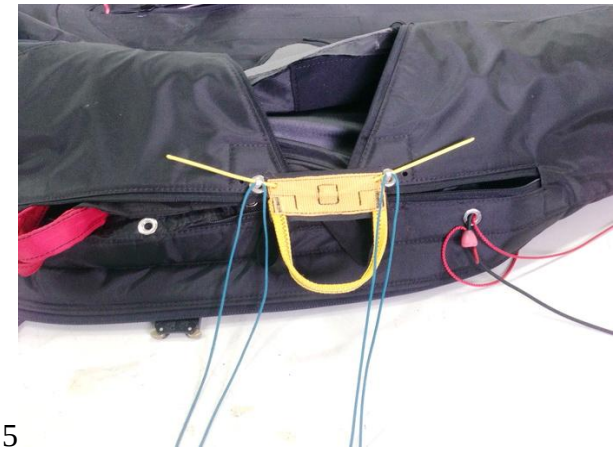
ATTENTION: The harness rescue bridle and the parachute bridle both have to be wrapped with a tape to avoid kinking the connecting carabiner (picture 1).

1

2

3

4



5

After the rescue parachute is packed, close the parachute zipper as shown on the pictures below:

6

7

Insert the pull out handle wires inside the fabric slots as shown on the picture:

8

To provide zipper opening ready for the parachute deployment leave one or two zipper teeth next to the pull out handle open.

The Viper-C allows for a surprising amount of storage for such a sleek racing harness. It has a wide storage section next to the back plate in the aft section.

There is additional storage compartment in the tail section for the pack-up gear. You can simply take the foam out and use this section for storage:

There is additional pocket for bags, papers, etc.:

Viper-C harnesses features the drag reducing neoprene neck- seal.

The Viper-C has aerotowing loops. After releasing from the tow line you can hide the tow release under the neoprene neck-seal, so the tow release will be completely hidden from the air flow:

There are car tow / winch tow loops on the harness (optional):

The Viper-C features optional pocket for the hook-knife.

3. Adjustments

There are wide range of harness adjustments according to your preferences and flying equipment.

- The harness leg loops and shoulder straps are adjustable to suit the pilot's size.
- Harness length adjustment by means of the shoulder straps:

- Harness length adjustment by means of moving the footplate, which is attached by Velcro:

- Foot angle adjustment by means of changing the foot support plate position. The foot support plate is attached by Velcro:

After having adjusted the harness length by way of moving the foot support plate, it is necessary to alter the rope length respectively, ensuring the most possible rear slider position in flight:

- The pitch attitude of the harness is easily and quickly adjustable by the pilot in flight without removing his hands off the control bar. Between adjustments, the pitch attitude becomes securely locked in position, providing an enhanced level of stability and safety that is lacking in many single suspension harness designs. To adjust the harness pitch angle, the pilot simply pushes up with his butt against the lever on the harness back plate, releasing the pitch adjustment line, and rotates to the new desired pitch angle. When the lever released, the rope is locked into position again.

The pitch lever adjustment has been described earlier in section 2.

4. Maintenance

With the proper care your harness can be used for a long time.

However there are few points in a harness that need to be checked regularly. We recommend that prior to each flight you take your time and do a complete preflight check of the harness. Make sure that:

- The main hang strap has no signs of wear.
- When you press on the foot plate and set it in the aft position (flying position) the slider moves all the way in the aft position.
- The axle of the slider is not bent and has no signs of wear or damage.
- The pitch adjusting webbing and rope have no signs of wear and the complete pitch adjusting system is operational.
- All harness zippers move freely, all ropes for opening and closing the harness are not tangled. We recommend that you spray all harness zippers time after time with silicone spray, this will greatly increase zipper's life.
- Take a close look at your harness to see if there is any sign of wear or damage of structural webbings.
- Make sure that all the details are mounted securely to the back plate and the back plate has no cracks or damage.

Inspect pitch adjusting webbing for signs of wear and replace it if necessary.

Usually it requires replacing the pitch adjusting webbing after each 50 – 100 hours of airtime (depending on how frequently you adjust the pitch angle in flight).

If the harness has been exposed to the direct sunlight for a long time, you should replace all the main webbings or even the entire harness, if you are in doubt that your harness is in the inside repair condition.

The general advice is, do not leave your harness under the direct sunlight, keep it always in a harness bag or in a glider's shade or any other shade whenever it is possible.

Store the harness in its bag in a dry place. Do not store the harness wet - always dry it first.

Once in a while check all hardware, all the ropes and webbings for possible worn-out or damaged parts.

If you have questions about the need of repairing or replacing some parts of your harness, feel free to contact your dealer or Aeros directly.

Have fun. Fly safe.

Aeros Team