Owner´s Manual

Perché Rescue System
Columbus Annular 20; 22

Perché - Fly market GmbH & Co. KG
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Warning

This emergency system should not be used for sky diving.

Emergency systems are not required to be registered by the Department of Aviation in Germany (Luftfahrt Bundesamt LBA). Any injuries or damage occurring in connection with this emergency system cannot be held the responsibility of the manufacturer.

1. TECHNICAL DETAILS

Parachute types: Paragliding emergency system Columbus Annular 18; 20

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	Columbus Annular 20	**Columbus Annular 22**
Weight (kg):	2,2	2,4
Sink Rate (m/s):	6,8	6,8
Area (sq.m):	33	37
Max. Load (kg):	100	120
Recommended Load (kg):	100	120

2. PURPOSE

The emergency parachutes are manually-released parachutes for paragliding pilots in an emergency situation while flying.

3. CONDITIONS OF USE

Operational lifespan of parachute: 10 years with an inspection every 2 years. For the next three years thereafter, the parachute must be inspected annually.

4. COMPONENTS

a) Parachute canopy with lines and bridles
b) Inner container with release handle
c) Outer container

5. NECESSARY DOCUMENTATION

a) Handbook
b) Inspection records

6. MODE OF OPERATION

During an emergency in the air, the reserve is deployed by giving the release handle a firm tug. This action will remove the fastening pins from their securing loops. The pilot should then throw the inner container to the rear, either to the left or to the right. The air current stretches the lines and susequently opens the inner container. The canopy releases, stretches and fills with air.

7. INSPECTING THE PARACHUTE

A parachute must be inspected by a registered packer before it is packed. After being opened during an emergency rescue, the parachute must be inspected. A packed parachute which is to be repacked. should undergo a release test. This establishes whether the power of the release is between 6 kp and 12 kp.
It is recommended that the Columbus be opened, aired and repacked after being closed for a period of four months.

8. STORAGE

Oil, grease, acid and paint should not be stored near the parachute. The storage space should be dry. Parachutes which have not been used for a long period of time should be opened and the canopy loosely rolled and stored in a bag.

9. CLEANING AND DRYING

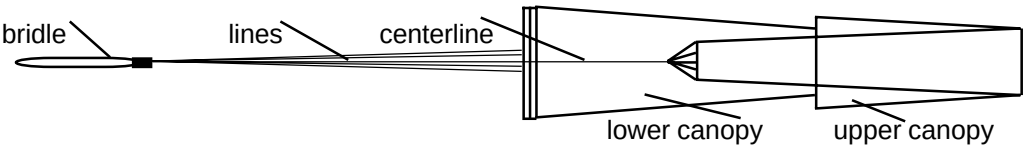
A dirty canopy and container can be washed with clean tapwater. If the rescue system comes in contact with salt water, it should be washed with fresh water and hung up to drip dry in the shade. Grease and mould can affect the strength of parachute components and when evident, the parachute should be sent to the manufacturer for cleaning and inspection.

10. IN THE EVENT OF DAMAGE

It is established during an inspection that the airworthiness of the canopy is impaired, then it must be sent to the manufacturer for repair. This is also advisable if the parachute is damaged and the pilot is unsure whether the airworthiness is affected. All repairs should be carried out by the manufacturer.

11. THE PARACHUTE, LINES AND BRIDLES

The parachute canopy has 18 segments (Columbus Annular 22: 20). the material is an air-permeable, tear resistant nylon fabric. The main seams are reinforced with a band. The lines are connected at the base with V-flaps, spliced and overstitched on the join. The apex is pulled in and secured with an elastic. The canopy is splitted in a upper and a lower canopy (see below). This allows a fast opening, a low sink-rate and no oscillations. When sewn the bridles have a strength of 2.6 t.



12. INNER / OUTER CONTAINER

The inner container is made from tear-resistant nylon fabric and includes a release handle and two pins.The outer container is made from strong, water-resistant nylon. It consists af a base section, two side flaps and an upper and lower flap.

13. PACKING THE PARACHUTE

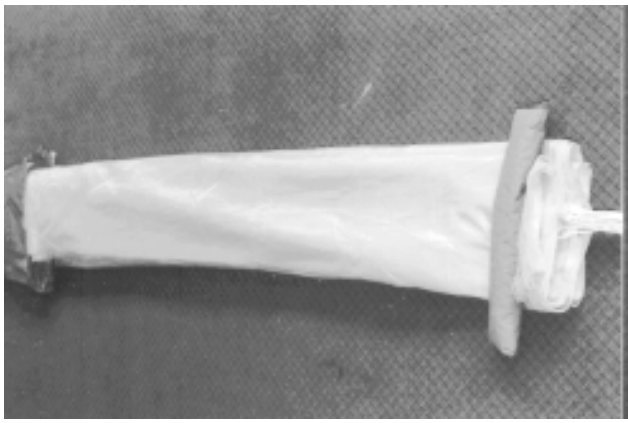
Packing the parachute should take place on a special packing table or a clean flat surface. The parachute is stretched to its full length on the surface. The packer stands to the right of the parachute.

A long cord is pulled through the packloops and secured to the upper end of the table.

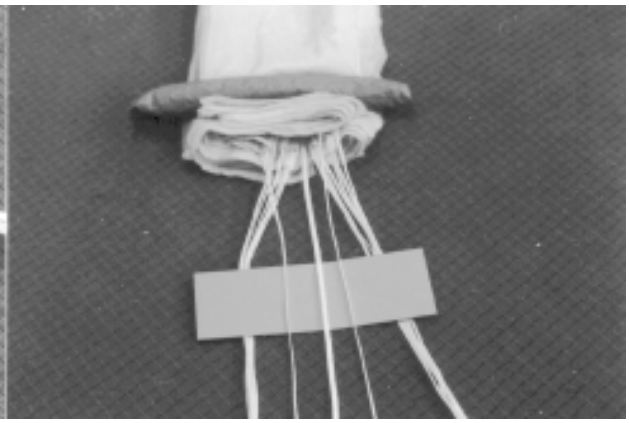
The packer takes segment 9 (Columbus Annular 20), pulls it toward him, and places the segments, one by one, on top of each other, so that the lines are between the thumb and index finger of the right hand. (Columbus Annular 22 - segment 10). Finally take the center line also between thumb and index finger.

The canopy is placed on the table and folded such that the stamped segment (No. 1) lies on the top.

Arrange the upper part of the canopy as shown.

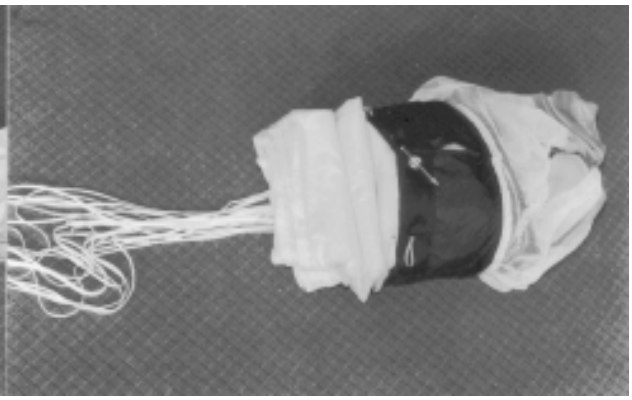


Fold the canopy in the form of an "S", so that the lines are together in the centre. To keep the lines lying flat they must be held down with a weight.
Remove the packing cord on top!!!

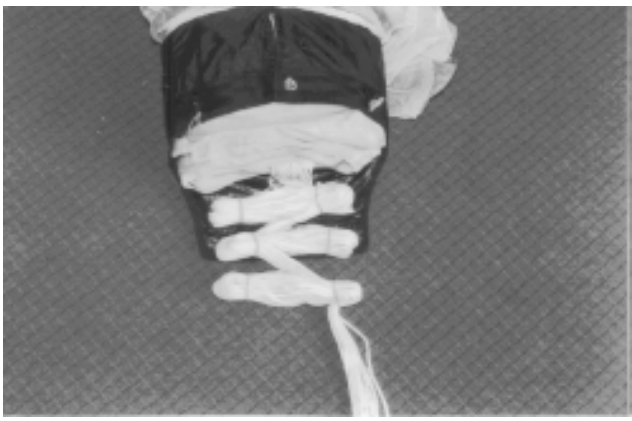


Inspect the lines 1 and 14 (16/18) and the center lines. Check that none of the lines are twisted.

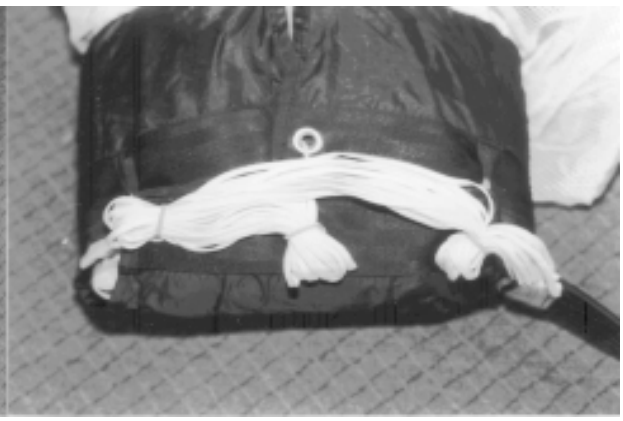
Place the parachute in the container in the form of an "S". At first make 3 "S" folds on the inner container. Leave the last 40 cm without an "S".



Take all "S"-folds and put it inside of the inner container. Fold the last 40 cm in small "S"-folds in the inner container.

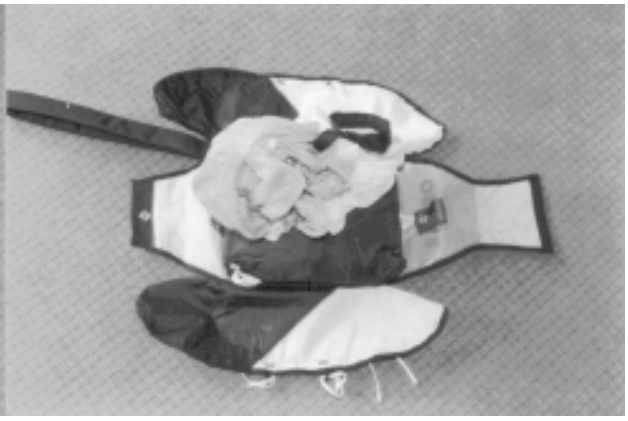


Form the lines in 3"S" forms. The curve on each "S" is loosely secured with rubber bands. The 3 bundles of lines are placed on the parachute.

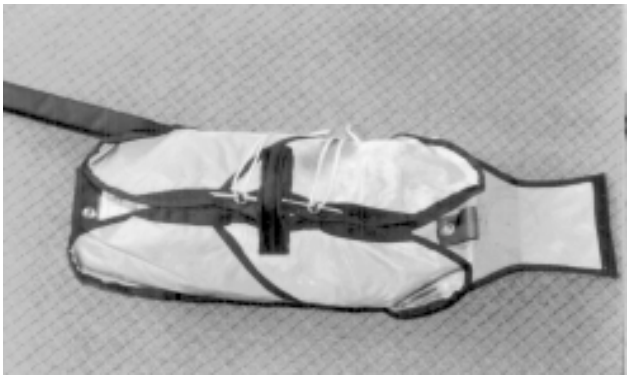


Close the inner container with the last 50 cm of lines. Start with the middle, then the outer.

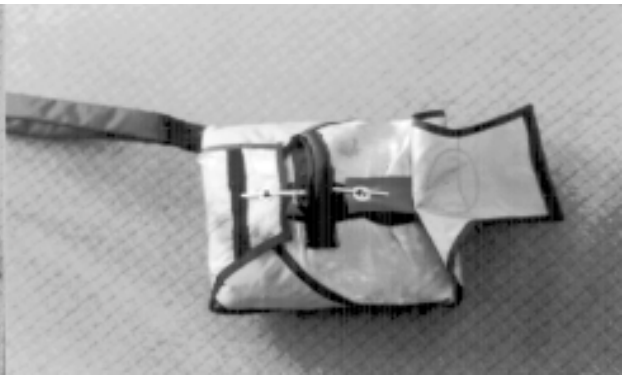
The bridle is placed in an "S" shape on the base of the outer container. Arrange the bridle so that it comes from the outer container on the left or right side, depending on the needs of the pilot.



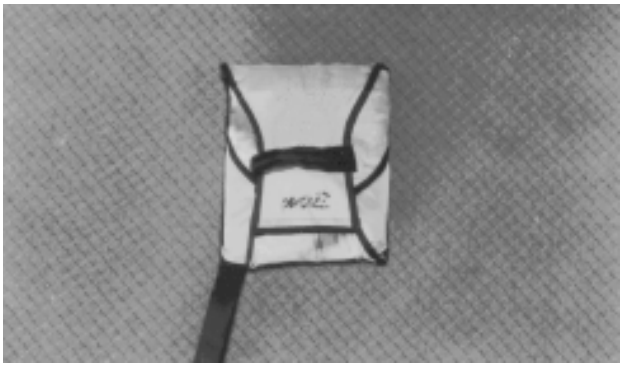
The inner container is placed on the bridle in such way that the fastener of the inner container is facing towards the bottom.



At first close the side flaps.



Finish by closing the lower fastening flap and finally the covering flap. The parachute is now packed.



The packed parachute is completed.

Enter the packing details in the record book, including the name of the packer.