



Manual

RL-16/3

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Description

The canopy RL-16/3 has been developed in close cooperation with competitive athletes especially for accuracy. The RL-16/3 is characterized by high steering precision and course stability. The short steering distances and the special aerodynamics of this canopy make most accurate and quick steering corrections possible, even in strongly braked mode shortly before landing.

The canopy RL-16/3 is manufactured by Spekon GmbH in 02782 Seifhennersdorf in accordance with German standards and holds a German approval.

Loading (kg)	Min.		Max.	
	Recommended	permitted	Recommended	Permitted
RL 16/3 250	50	50	75	130
RL 16/3 270	60	50	80	130
RL 16/3 280	70	50	100	130

Each owner of an RL-16/3 should acquaint himself thoroughly with the content of this canopy manual. In the case of non-observance of parameters stated in this manual this could lead to an impairment of serviceability of this canopy. The use is carried out at own risk.

Comments

This manual is designed to give the licensed jumper, packer or rigger important advice for correct maintenance and important information on use and maintaining of the operability of the canopy.

Reading the manual does not substitute the training of a skydiver, packer or rigger. It is not to enable the holder to pack independently without training.

All actions described in this manual may only be carried out by trained or admitted persons. In case of non-observance or deviance of the manual severe accidents may occur.

For arising problems please contact us as manufacturer! We will gladly provide you with state of the art information.

Completion

All parts and components delivered by us are manufactured and tested according to a quality management existing in our enterprise. Nevertheless the rigger (or other qualified persons) is obliged prior to completion to check all utilized components for their ground readiness and compatibility.

The assembly and the packing of the main canopy have to be carried out in accordance with the manufacturer instructions.

Your SPEKON-Team.

Inspection

The licensed skydiver is obliged to carry out regular checks of his sporting equipment (canopy assembly) for damages through usage upon each pack job. An inspection of the gear is always necessary before completion, after repair and for the periodical 24-monthly check-ups. The inspection has to be carried out by qualified personnel. Please acquire information on the legal requirements abroad for usage of the equipment outside Germany.

Please read the instructions carefully prior to any action on your equipment.

Components of the inspection	Inspection notes
Connector links	Forming, functioning of the cap nut, surface
Slider	Correct completion (size), damaged grommets, grades or sharp edges at grommets
Lines	Attachment points, correct alignment, condition
Steering lines	Attachment points, correct alignment, condition
Canopy	Check seams for loose stitches, firmness of material or staining of fabric, rips in fabric, firmness of attachment loops of lines, POD-connection

Packing of the canopy

Since the canopy is made of canopy fabric F-111A and the profile height of the front is extremely higher in comparison to other sport canopies we suggest to fold the canopy using side packing or roll packing.

Tools absolutely necessary for packing are:

- Pull-up cord

Packing should always occur on a clean and dry surface (packing mat).

Prior to packing, canopy, lines, bridle, pilot chute and POD are to be checked thoroughly.

The connection canopy – rig is to be carried out and controlled in accordance with the instructions of the rig manufacturer. For packing the main canopy the following steps are suggested:

Put canopy in packing position with straight lines. Here fore use tabs on top-skin of the canopy. Sort nose (fig. 1).

Set brakes for shock absorbance pulling down the steering line through the ring attached to the rear riser. Below the ring push top end of the steering toggle through the eye in the steering line. Stow slack underneath the Velcro® (fig. 2).

Line-check for free run!



Fig. 1



fig. 2

Starting at the right and left outside cells, take each three cells together and tuck them into the middle cell for approx. 40 cm (nearly 16 inches). The state of the art stowing of the nose crucially determines the opening procedure (fig. 3). **Middle cell lines not pulled tautly, or uneven folding of the canopy will cause capacity overload of single lines and may cause their premature abrasion!**



Fig. 3

Take the top of the canopy at the B-line level, stretch the material and stack B-lines on top of A-lines (fig. 4). Repeat with C-lines (fig 5).



Fig. 4



fig. 5

Take the canopy at level of D-lines, put on top of the already laid stack and divide the tail with the steering lines running outside left and right (fig 6).



Fig.6

Fold each side of the tail separately, beginning at the outside steering line branch. Place it in the middle of the already folded canopy stack, place the following branch on top and lay the fabric in-between outside and pull out at seam as far as possible (fig 7).



Fig. 7

Place the middle seam of the tail onto the middle and pull the fabric to the outside. If steering lines are attached to the panel seam, pull them up tightly. Pull up the slider along the taut lines up to the stoppers at the canopy. The stoppers and the grommets of the slider lie touching, with the slider surface forming a pocket which is placed on top of the lower part of the canopy stack (fig 8).



Fig. 8

Pull down the top skin of the canopy middle cell, the bottom end level with the slider grommets. Fold the adjacent panels under the stack until the whole bundle is at POD-width.

Then grab the line bundle just below the canopy fabric, s-fold the canopy including the slider on top of the bundle, approx. POD length. After fixing of the first s-fold with one hand (or knee) place another s-fold on top, this time starting at the top end of the canopy (fig. 9). The so s-folded main canopy then is placed inside the POD in accordance with the rig manufacturer's instructions. The stowing of the lines also is carried out in compliance with the rig manufacturer's instructions.



Fig. 9

Storage, maintenance and repair

Storage

The canopies are to be stored in dry, dust free, well ventilated and sun proof rooms. The temperature in the rooms is to be kept between 10 and 25° C, the medial humidity between 30 and 70 %.

The canopies should be stored in cupboards or on shelves observing the following minimum distances:

- Above floor 25 cm
- Off heater oven 100 cm
- Off outside wall 50 cm
- Off separation walls 100 cm

The canopy documents should be kept together with the canopies. In the storage room no materials may be kept that through their properties may attack or destroy the canopy material (e.g. fats/greases, acids, oils or other chemicals). The room is to be kept vermin free.

Maintenance

All canopy systems are to be checked through and aired out periodically (at least once a year). The ventilation time takes at least six hours. For airing out, the canopy efficiently is hung up at the tail end. This way the canopy is stretched out in its total length and can be shaken frequently.

In case a canopy is not needed for jumping operations it should be stored appropriately. The canopies are packed according to the packing instructions. The lines will be daisy-chained and tied with a part of a line. Prepared in that manner, the canopies are rolled in.

The rig is to be put into the gear bag in a way that the canopy does not make contact with the metal fittings of the rig and that the spring loaded pilot chute lays freely and uncocked.

In case of staining of the canopy through dirty water or muddy soil, the canopy is to be rinsed – changing the rinsing water several times – and dried, without wringing the canopy. Dry the canopies carefully, do not tumble and do not expose to direct sunlight. When contact with seawater, act accordingly.

Oil or grease stains are to be treated carefully with mild detergent and to be rinsed with clear water.

Repair

With gear-related repairs the “Manual on Repairs of Canopies for Use by Man”, editor: Saechsische Spezialkonfektion GmbH Seifhennersdorf, is binding.

Inspection

All components of the canopy system are to be inspected periodically. The inspection may be carried out by the manufacturer, an acknowledged aeronautic enterprise or a rigger or packer admitted for air sporting equipment.

Maintenance, repairs and packing of the rig may only be carried out by personnel admitted by the respecting country. Owner and skydiver have to obtain information on the respective laws and rules. Spekon GmbH only provides minimum requirements in this manual. Maintenance and inspection periods as well as the respective personnel are listed in the following table.

Kind of Maintenance	Manufacturer	Rigger	Master Rigger	Maintenance Clearance
Assembly and check for compatibility	Yes	Yes	Yes	Prior to any maintenance work
12 month check and reserve repack	Yes	Yes	Yes	<ul style="list-style-type: none"> - Prior to each maintenance - At least every 12 months - After each reserve ride - After faulty treatment
Minor repairs	Yes	Yes	Yes	
Major repairs, 24-month check	Yes	No	Yes	

Minor repairs are change of components without need for sewing on supporting parts, and repairs on non-supporting parts, such as tapes, Velcro® patches, tabs and comparable parts.

All other repairs are considered and treated as major repairs. This includes especially replacement of parts and panels of canopy material, and lines attached to the canopy, as well as the replacement of parts of metal fittings and repairs on the carrying material system of the rig.

Major repairs are to be documented and require a revision by a master rigger.