

## Quadro 140 light



**WoodyValley**

*Edition 1.1 / 05.2019*

## THANK YOU!

We would like to thank you for having chosen one of our products, and we invite you to read this important document, the User Manual for the Quadro 140 light.

Thorough knowledge of your equipment will improve your personal safety and your level of flying.

The contents of this manual were written with due diligence and by Woody Valley best knowledge. The Woody Valley reserves the right to change or delete contents of this manual. All content of this manual, text and photos are subject to copyright laws.

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## SAFETY NOTE

*You have purchased a piece of equipment manufactured by us, and so you are aware of your identity as a paraglider pilot holding the respective pilot's licence, and you accept all the risks connected to paragliding including the possibility of injury and death. The incorrect or inappropriate use of Woody Valley equipment greatly increases this risk. In no case can Woody Valley and the Woody Valley retailer be held responsible for personal injury caused to yourself or to third parties, or for whatever type of damage. If you have any doubts on the use of our equipment, please contact your retailer or the importer for your country.*

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# 1 - GENERAL INFORMATION

Congratulations on buying your QUADRO rescue system.

Before you get to know your system please read the manual which includes important information.

This manual gives you information on the entire specific and general characteristics of the rescue Quadro 140 light.

All technical data and instructions in this manual were drawn up with great care. Woody Valley cannot be made responsible for any possible errors in this manual.

Should you decide to sell this rescue system at a later date, please pass on this manual to the new owner.

No guarantee of any kind can be made against accidents, injury, equipment failure, and/or death. It is assumed that the pilot is in possession of the necessary qualifications and provisions of any relevant laws are observed.

The use of this rescue system is entirely at your own risk.

Every pilot bears the responsibility of his/her own safety. The manufacturer or distributor assumes no responsibility for accidents occurring while using it.

It is strictly prohibited to use the Quadro 140 light:

- beyond the maximum recommended weight
- for skydiving
- with damaged canopy, lines, connection belt or seams or
- without regular check (check interval).

## ATTENTION:

*The rescue system is not suitable for speeds in excess of 32 m/s (115 km/h).*

*Every pilot must ensure that the rescue system is properly checked at regular intervals.*

## 2 - TECHNICAL DATA

|                                      |                  |
|--------------------------------------|------------------|
|                                      | Quadro 140 light |
| Certification                        | LTF / EN         |
| Working load                         | 140 kg           |
| Number of certification              | EP 242.2018      |
| Area (m <sup>2</sup> )               | 44,80            |
| Number of cells                      | 24               |
| Weight including container (kg)      | 1,450            |
| Volume packed (cm <sup>3</sup> )     | 5300             |
| Maximum payload (kg)                 | 140              |
| Minimum payload (kg)                 | 95               |
| Middle line                          | 1                |
| Rate of descent max. payload (m/sec) | 5,49             |

### 3 - TO GET TO KNOW YOUR QUADRO

The QUADRO 140 light is a manually deployable rescue system it is for suitable paragliding pilots in an emergency situation and is made by high quality light materials and has a quadratic canopy with one middle line which pull down apex.

Rescue systems from Woody Valley are characterized by a high level of reliability and maximum material strength. Fastest inflation while maintaining moderate sink rates are features of these systems.

The material is air permeable, strong nylon. There are bands sewn into the main seams to strengthen the canopy. The base and side edges are reinforced with bands. The apex is pulled .The lines are grouped into a strap. This strap generates the connection between rescue system and harness.

The rescue system is sewn to NATO standards which means that all rescue systems are sewn by professionals and delivered only after inspection and approvals..

The specially designed inner container prevents the lines cannot get caught up in the cap and the opening speed is accelerated with this inner container.

#### **ATTENTION:**

*When using a different inner container it is important to ensure that the rescue system can be thrown without problem*

.

*A different inner container may change the opening speed of the rescue.*

#### ***3.1 - What to do when it happens?***

If you find yourself in an uncontrollable situation in the air, pull hard on the deployment handle. This will open the outer reserve container and release the reserve parachute. Then throw the reserve package forcefully away from you. As the suspension lines become tight, the container will fall away and the reserve will open.

In an emergency situation, the handle of the rescue system is given a sharp pull. The special thread which holds the closing splint breaks.

If your glider is rotating it pays to throw the reserve against the rotation as this will speed up the inflating process. If you have had a collision and find yourself entangled with someone else's glider try to make sure you don't throw the canopy into the entanglement, as this will delay the opening.

When you are flying recurrently grab the position of the handle so you can find it in an emergency!!

If you have enough height, first try to resolve the problem and stabilize the rescue as far as possible (danger of screwing of the bailout).

If you have not enough height don't hesitate for pulling the rescue.

Do not forget to unhand the rescue handle!

## **4 - PACKING INSTRUCTIONS**

### ***4.1 - Packing preparations***

Before you pack the rescue system it is important that the canopy is spread out on the ground for about six hours.

If possible, it would be even better to air it one night long by hanging it up by the top lines. Before the rescue system gets packed, a release control must be carried out. The release force should be between 5 and 7 daN.

It is helpful to pack the rescue system with two people.

The rescue should be packed on a clean surface and helpful tools are packing weights, one line to fix the packing loops.

Mandatory tools are packing rubbers and the original container or the container belonging to the harness in which the QUADRO will be stored.



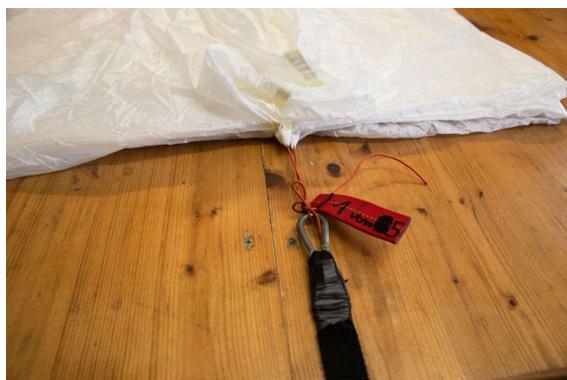
Upwards, used in the following text means toward the apex, downwards towards the riser. Left and right are meant while looking from the riser to the apex.

#### ***4.2 - Pulling the packing line trough the fixing loops***

To help you pack the rescue system, use a short piece of old paraglider line and thread it through all the apex fixing loops. The fixing loops are sewn on the canopy.



Sort out the suspension lines.



Attach the line to a stable fixed point.

Take line 1 and the last one stretch the lines so they are running parallel to the main strap and make sure that the middle lines are in the middle and the other lines to the side



**ATTENTION:**

*There should not be any tangles or knots in the lines. All lines must have a straight course and may not have any twists.*

**4.3 - Sorting the panels**



Put all the panels to the right side and fold over each panel from the right side onto left side like turning the pages in a book and pull the top of the opening outward.

Start with panel 14, the last one is panel 2, which should be the top panel on the left side.



Panels with slots are laid out as cone.



Put a packing weight for fixation on the last panel and then all the panel from the right side can be shifted to the that side.

Now fold all panels stored above the packing weight to the right side.

The panel on the bottom is panel 15, but it is face down. You only see 16 on the left side. Fold all other panels on top.



Afterwards check both sides.

On each side there must be the same amount of panels.

Check the lines. You can divide the lines in to three parts: the left ones, the right ones and the middle line.

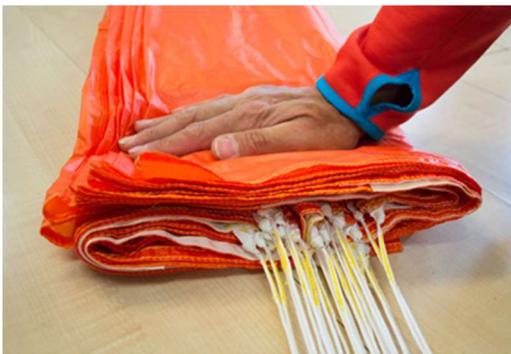
All lines must have a straight course and may not have any twists.

#### ***4.4 - Folding the canopy into thirds***



The left third is folded onto the middle and then the right third is folded under the middle. Do the same on top of the canopy.

Pay attention to the size of the container !



#### **ATTENTION:**

*Remove the line from the fixing loops!*

#### ***4.5 - S-folding canopy to fit into inner container***

Release the riser from the fixing point and fold the canopy in “S” folds from the top right down to the base, so that it fits into the inner container. This is the last chance to check, that the line fixing the packing loops was removed.

Fold the whole canopy into the container.



Close both sides of the inner container and the top pocket with the rubber, which you fix with one loop of all the suspension lines.

**Attention:**

*These are special rubber bands which you can buy from the manufacturer and you must renew them each time you repack.*



The suspension lines are sorted in three bundles, which are fixed by rubbers.

These bundles are stored in the pocket of the container.

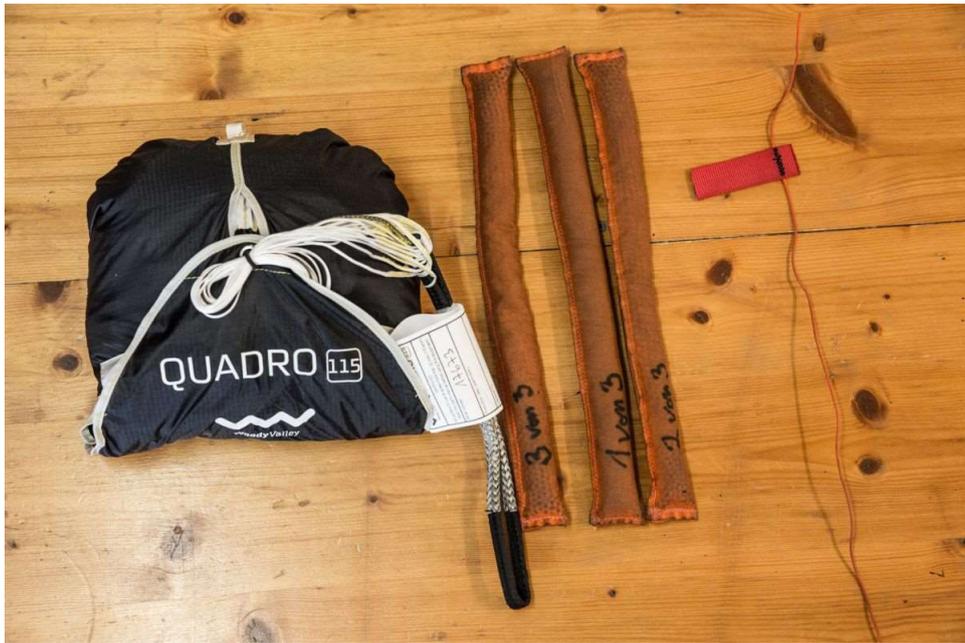


Use the last 20 cm of the suspension lines for the final closing of the inner container with the black rubber.



With the rest of the suspension lines you finalize the closing of the inner container by pulling the suspension lines through the black rubber loop. Don't make the closing loop too big.

Now the packing is finished. Control your packing tools on being complete.



Make a note of the date of packing in the pack control booklet.

#### ***4.6 - Installing your rescue handle***

Most harnesses have a handle for the harness containers. This handle must be connected to the inner container.

The inner container of QUADRO rescue systems has two loops, in which the handle of the harness can be attached (center loop or side loop).

Handles for front and back containers are generally suspended in the central loop, container on side or under the seat, the side strap used.

#### **ATTENTION:**

*Note the instructions for the rescue unit in the operating instructions of your harness.*

*If there is no handle of the harness or it does not fit with your inner container, please ask the dealer of your harness or your paragliding school.*

*The handle must be firmly connected to the loop on the inner container (opening strength < 7daN).*

## ***4.7 - Attachment of the connection belt with the harness***

For connecting the two belts use a fixable 24 kN- snap hook with a diameter of minimum 8 mm. It is very important that the snap hook cannot twist to prevent rotation stress of the snap hook.

Therefore use cable fixer, adhesive tape or strong rubber bands and pull it above and below the snap hook around the belts.

Therefore use cable fixer, adhesive tape or strong rubber bands and pull it above and below the knot around the belts.

### **ATTENTION:**

*Pay attention to the symmetry of both lines. Neither side of the loop should be longer than the other.*

*A higher breaking force could otherwise endanger the release of the rescue system!*

## ***4.8 - Compatibility- check***

A control of every new combination of rescue system and harness/outer container has to be carried out by either the producer of the harness or the rescue system or an authorized person (dealer or flight instructor). The activation of the rescue system in flight position has to be correct and in conformity to the construction guidelines.

The check has to be recorded in the documentation of the rescue system. The throwing movement should be practiced every time the rescue system is repacked.

### **4.8.1 - Important points to look out for:**

- Check (regularly):
  - connection of the rescue system to your harness

- connection of the harness and deployment handle
- Check compatibility of rescue system and harness
- Before each start with your paraglider you have to check the container is closed!!

**ATTENTION:**

*Helping line from the fixing loops is removed (after each packing)*

## 5 - CARE, MAINTENANCE AND REPAIR

### 5.1 - Care Instructions

- Please do not store your rescue system in the vicinity of acids, grease, oils or paint. To ensure safe operation, the system needs proper maintenance and care.
- Do not store your rescue system in extreme temperatures or humidity (more than 300 C Or 55-65% humidity).
- A humid or wet canopy needs repacking.
- Exposure to UV-rays causes deterioration of the fabric.
- Please only use clean and fresh water to clean your rescue system or container.
- Wet cloth stored in warm conditions will begin to mould and significantly lose structural strength. Rescue systems in this condition must be brought to the manufacturer to be checked.

#### **ATTENTION:**

*It may take several days to dry out the rescue completely especially the lines of the rescue system, which take longer than the fabric.*

*Do not fold and store your rescue system prematurely if it not completely dry. Mildew may damage your harness and your rescue system.*

### 5.2 - Repairs

The seal of approval can only be preserved if original parts are used. If you discover any damaged parts to the rescue system which might impede deployment, please send it back to the manufacturer to get repaired.

Repairs can only be carried out by the manufacturer or from the manufacturer authorized persons.

### ***5.3 - Use limitations, packing- and check intervals***

#### **5.3.1 - Packing interval**

6 to 12 month: the rescue system also must be aired recurrent

#### **5.3.2 - Check interval**

2 years: if the rescue system was opened after a flight accident, the rescue system must be checked.

#### **ATTENTION:**

*Without regular certified inspections, your rescue will lose its pattern test result and guarantee.*

#### **5.3.3 - Use limitation**

15 years: Our rescue system QUADRO have a life span of 15 Years by observance of the regulations for packing and checking. Certification is no longer valid thereafter.

The certified life span can be extended by a further three years, if the rescue system is checked by the manufacturer.

#### **ATTENTION:**

*Packing and checks of the rescue system must be documented otherwise guarantee is cancelled.*

## 6 - Terms of the guarantee

Woody Valley guarantees the proper processing, an operation within the allowable limits of proper operation and the fulfilment of the eligibility criteria of rescue.

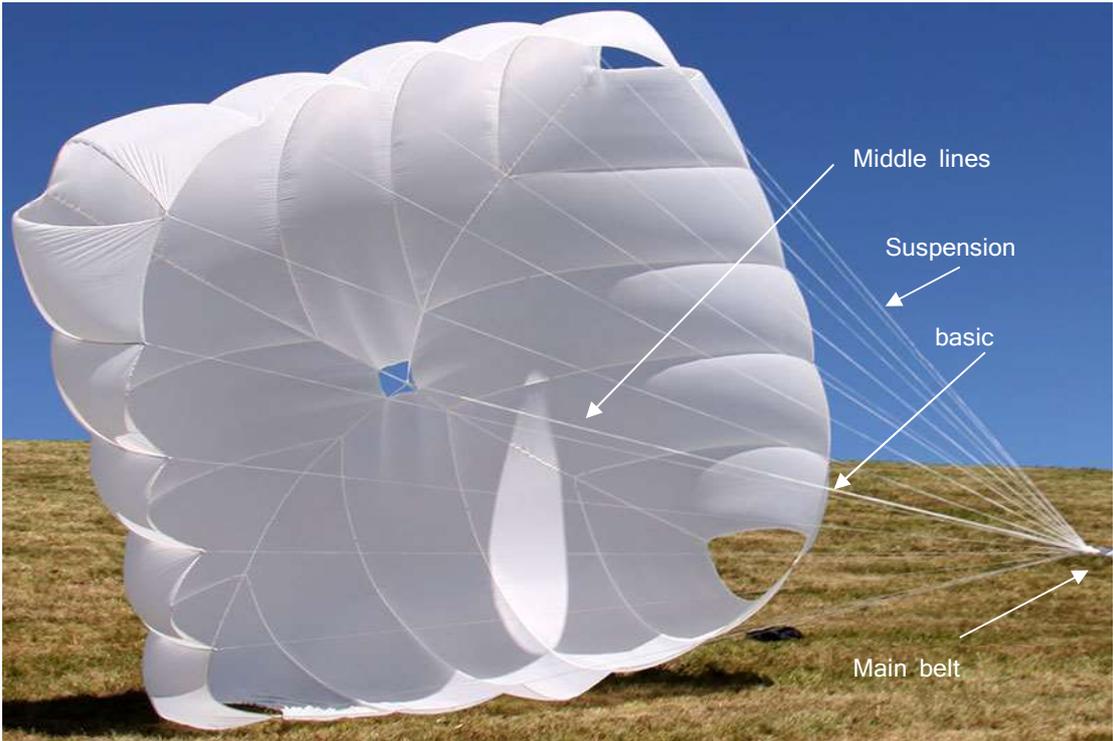
Guarantee is only valid for Woody Valley products with LTF/ EN certification.

### ***6.1 - What is not covered by the rescue guarantee?***

- which have been changed by yourself,
- that were not purchased from an authorized dealer / flight school,
- where the required inspection intervals were not met and the verification of the rescue system was not conducted by a Woody Valley authorized operation / person
- Damage
- which has occurred due to improper treatment (i.e. storage in humidity, heat or direct sunlight)
- caused by solvents, salt water, insects, sun, sand or humidity
- caused by force majeure.

In case of a concluded claim the period of guarantee carries on. The period of guarantee and the connected claim are not prolonged and are only valid until the original date of expiry.

# 7 - Description of the rescue system







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Every effort has been made to ensure that the information contained in this manual is correct, but please remember that it has been produced for guidance only.

This owner's manual is subject to change without prior notice. Please check at [www.woodyvalley.com](http://www.woodyvalley.com) for the latest information regarding the QUADRO rescue.

Latest update: Mai 2019.

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