

## **USER MANUAL FOR TRANSFORMER PARAGLIDING HARNESS**

Thank you for flying Sky Paragliders products. Thank you for buying TRANSFORMER. We hope you will be satisfied with this product and wish you a lot of awesome flights. It is strongly recommended to consult the manual before the first flight. This manual might help you to familiarize yourself with the product faster.

Team Sky Paragliders

Manufacturer: Sky Paragliders a.s.

Model & Type: TRANSFORMER/TRANSFORMER XC M, L, XL paragliding harness

Manual Version: V2 10/07/2018

## INTRODUCTION

Congratulations on becoming part of the Sky family. We are very pleased to welcome you to the world of Sky and hope that you will enjoy many hours of fantastic flying aboard your Sky Paragliders harness.

Sky Paragliders is based in the heart of Europe and we pride ourselves on our own, purpose built, state of the art production facilities in the Czech Republic.

Our management and development teams are located just 25 steps above the glider production facility. This close contact is incredibly important to us and helps to ensure that our products are of the highest quality possible and with minimal air miles on our raw materials.

## DISCLAIMER

Please read this Manual carefully and note the following details: The purpose of this Manual is to offer guidelines to the pilot using this harness. We advise that you only fly with this harness when qualified to do so. Pilots are personally responsible for their own safety and their equipment's airworthiness. The use of this harness is solely at the user's own risk! Neither the manufacturer nor dealer accept any liability connected with this activity. This harness, on delivery, meets all the requirements of the EN 1651 and LTF regulations and has an airworthiness certificate issued by Sky Paragliders. Any alterations to the harness will render its certification invalid.

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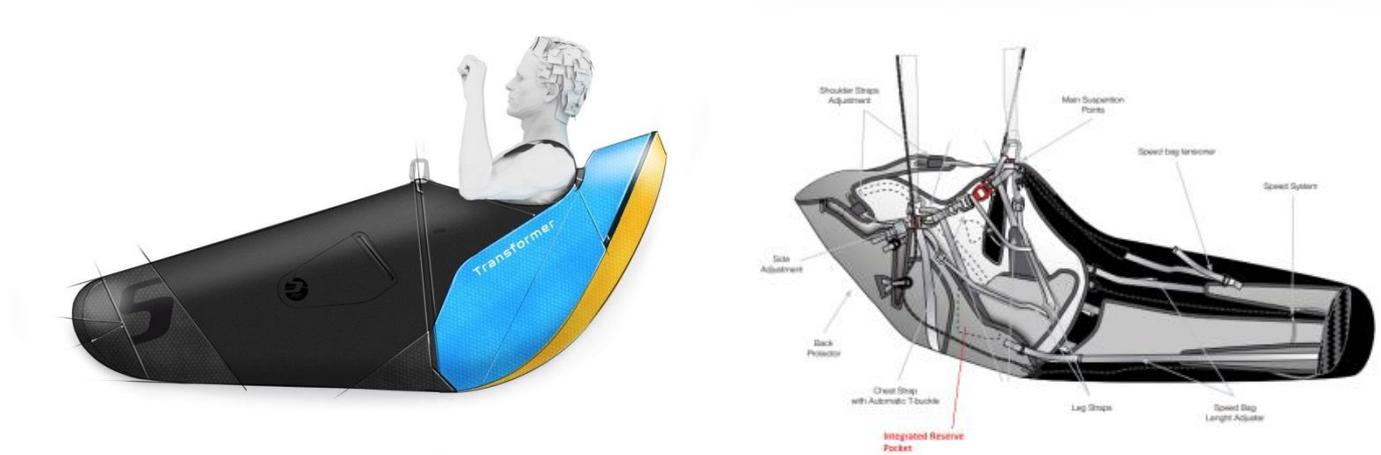
## 1. GENERAL INFORMATION

- Model name: TRANSFORMER/TRANSFORMER XC M, L, XL
- Total maximum weight in flight: see the technical data.
- This user manual version dated 10 July 2018.

### 1.1 Product Overview

TRANSFORMER is a harness with two basic modes. The cocoon/pod harness for long flights, but removing the speed bag we have a classic, versatile harness which is suitable for recreational flying to cross-country flying.

TRANSFORMER is designed for pilots whose start-up ambition is to end in beautiful and long flights, with the ability to transform with the pilot from classic mode to a modern, aerodynamically shaped harness with speed bag. TRANSFORMER is a modern, technologically advanced harness with a racy cut, comfort, simplicity and accessibility from our COMFORT LINE series.



### Transformer

//graphics with description should be attached – like SKYLIGHTER3//

### 1.2 Certification

TRANSFORMER has passed the certification according to load test EN 1651:1999 and this harness conforms to the testing criteria of the „Luftfahrt-Bundesamts LTF 91-09 (LTF - Luft Tüchtigkeits Forderungen, or "Flying Craft Airworthiness Standard"). Any alteration of the harness can invalidate all the aforementioned certifications.

Please note: Use of this harness is at your own risk. Any liability of the manufacturer or distributor is excluded. The pilot is responsible for airworthiness of his flying equipment. The pilot must comply with legal regulations.

### 1.3 Pilot's Profile

- Transformer is suitable for all levels of pilot.
- Pilots demanding a high comfort level
- Pilots who prefer a simple and versatile harness

## 1.4 Scope of delivery

Harness is delivered in version TRANSFORMER or TRANSFORMER XC.

### TRANSFORMER

Harness  
Lightweight speed system  
Carabiners



### TRANSFORMER XC

Harness with Speedbag  
Instrument cockpit  
Lightweight speed system  
Carabiners

## 1.5 Features

TRANSFORMER main features are:

- Very easy on/off speedbag system.
- Option to classic flight without speedbag or foot stirrup.
- Low weight – carbon seat board and foot plate, lightweight speedbag (size L is only 4,6kg with speed bag and carabiners).
- Slim strap system.
- Simple and fast set up with Easy Custom Tuning.
- Modern stable geometry (optimized hang point height and distance).
- 16 cm back protector.
- Integrated rescue container.
- Functional back pocket with radio pocket and hydration system - camel bag © compatible.
- Under seat ballast pocket.



## 2. SET UP

### 2.1 Fitting the reserve

It is highly recommended that the initial installation of the reserve parachute be carried out by a qualified professional. Ask your paragliding equipment supplier or instructor to do it for you and familiarise yourself with the process. The size of the reserve pocket on Transformer is suitable for most current reserve systems. If it is not possible to connect the harness reserve handle to the loops on the parachute deployment bag inside the pocket, please consult your supplier who may be able to supply an alternative deployment bag. Loops can be sewn at an appropriate place on any deployment bag, but this must be carried out by a qualified person only.



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1. Connect the reserve to the rescue parachute risers.
2. Connect the handle to the loop at the end of the reserve container.
3. Insert the reserve into the pocket with the reserve lines towards the outside of the harness.
4. To close zips, first run the slider all the way to the end stop.
5. Then bring the slider back to the closed position.
6. Insert the pins into the loops using a packing line. Note; the long pin locates into the upper loop. Warning! Be sure to remove the packing lines!
7. Insert the handle into the elastic pocket.

**WARNING!**

After installation of a reserve parachute in the harness, it is absolutely essential to do a simulated deployment under a static swing, ensuring that the parachute release system operates correctly and the parachute comes out easily. The cords which close the reserve pocket must be checked regularly. If the cord is worn, it must be replaced. Each time a reserve parachute is installed, check that the cord is in good order by applying a load of 10 kg. Before each flight, check that the pins and handle are located correctly.

**Please note, the parachute can only be deployed with the right hand.**

When alternatively front rescue container is used, it should hang on the main carabiners - other side than carabiner gates.

## 2.2 Fitting the harness

### 1) Lumbar Adjustment

An excessively reclined position reduces stability and increases the risk of risers twisting in the event of a spin or side collapse.

### 2) Shoulder Strap Adjustment

For optimum comfort during take-off and ease of achieving your preferred flying position the shoulder straps should not be excessively tight. The straps may appear loose while in the seated position but some play is required to avoid excessive strap pressure in the standing position.

### 3) Chest Strap Adjustment

Tightening the chest strap increases the efficiency of the Auto Balance System (ABS, i.e. stabilising system) but decreases the roll response of the wing. The pilot may feel more stable in turbulent conditions and the wing will be more stable in the event of an asymmetric collapse. However, the wing may be less inclined to bank when turning. The design of the integrated ABS in the Transformer means that the range of stabilisation in the chest strap remains reasonable.

Warning: The chest strap adjustment can be quite sensitive and it is best to test first under a static swing, and then in still air flight, before trying to adjust it during a turbulent flight. Before taking off, do not forget to pre-adjust your chest strap. This will result in a more comfortable flight.



### 2.3. Fitting the speedbag (optional)

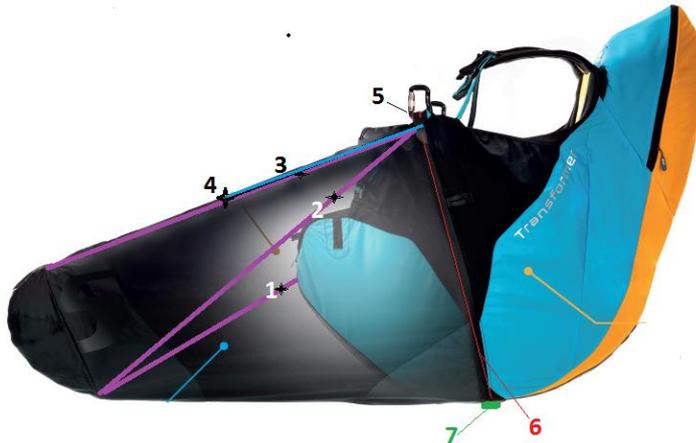
TRANSFORMER has very easy on/off speedbag system – TRANSFORMER XC/TRANSFORMER.

For flying with speedbag (TRANSFORMER XC) it is necessary to set up the length, suitable angle of the speedbag and correct closing of the speedbag after the take off.

\* use loops 1,2 and 3 (violet lines) to set the suitable length and angle of the speed bag

\* use loop 4 (blue line on the right and red line on the left side) to set correct closing of the speedbag

The speed bag should be adjusted to the correct setting using a harness simulator.



Removing the speed bag you have a classic, versatile harness which is suitable for recreational flying.

To remove speedbag:

- 1) Detach loop 1 from the harness
- 2) Unhook the speedbag from the main carabiners – 5
- 3) Unzip side zippers – 6
- 4) Detach Velcro strap on the bottom of the harness – 7

To attach the speedbag back to the harness use reversed procedure. After the attaching of the speedbag, check the correct length and angle of the speedbag.

## 2.4 Fitting the cockpit (optional)

Flight deck is easily attaching to the harness by three plastic buckles – two on the side are going to their opposite parts which are close to the main carabiners and one in the middle is going to the chest strap.

Instruments can be attached either directly to the deck or alternatively to the Velcro plate. In the air it rests just under the chest strap to make it easy to view the instruments.



## 2.5 Fitting the speed kit

- Set Up

Route the speed bar line first through the eyelet at the front of the side panel, then through the pulley on the side and finally out through the slot in the elastic fairing.

- Speed System Adjustment

The speed system should be adjusted to the correct length using a harness hanger.

### 3. Technical information

| <b>TRANSFORMER</b>            | <b>M</b> | <b>L</b> | <b>XL</b> |
|-------------------------------|----------|----------|-----------|
| Pilot's height (cm)           | 160-180  | 170-190  | 180-200   |
| Board width (cm)              | 29,8     | 32       | 34,2      |
| Board depth (cm)              | 37,5     | 40       | 43        |
| Suspension points height (cm) | 43       | 45       | 47        |
| Chest strap range (cm)        | 40-47    | 42-50    | 46-53     |
| Protector thickness (cm)      | 16       | 16       | 16        |
| Harness weight* (kg)          | 4,37     | 4,6      | 4,83      |
| Certification                 | EN / LTF | EN / LTF | EN / LTF  |

Min. and max. volume of harnesses container - min. 2,3 liters / 0,95 kg – max. 7,6 litres / 2 kg (min. Skylite M – max. Sky Sytem II 135)

\* Weight including back protector, seatboard, speed system, main carabines and instrument holder.

Size table TRANSFORMER XC

| cm/kg | 60 | 65 | 70 | 75 | 80 | 85  | 90  | 95  | 100 |
|-------|----|----|----|----|----|-----|-----|-----|-----|
| 160   | M  | M  | M  | M  |    |     |     |     |     |
| 165   | M  | M  | M  | M  |    |     |     |     |     |
| 170   | M  | M  | M  | M  | L- | L-  | L-  |     |     |
| 175   | M  | M  | M  | L- | L- | L-  |     |     |     |
| 180   | M  | M  | M  | L  | L  | L   | XL- | XL- | XL- |
| 185   |    |    |    | L  | L  | XL- | XL- | XL- | XL- |
| 190   |    |    | L  | L  | XL | XL  | XL  | XL  | XL  |
| 195   |    |    |    |    |    | XL  | XL  | XL  | XL  |
| 200   |    |    |    |    |    | XL  | XL  | XL  | XL  |

" - " means shorter speedbag

## 4. CARING FOR YOUR TRANSFORMER

### 4.1 Use

TRANSFORMER is made from high tech materials. However, care and attention should be exercised when using TRANSFORMER to avoid abnormal contact with abrasive surfaces. Carabiners require special attention. If you have suspected any damage, replace them immediately.

#### Pre-Flight Checks

PARAGLIDING IS AN EXTREMELY DEMANDING SPORT REQUIRING THE HIGHEST LEVEL of ATTENTION, JUDGMENT, MATURITY, AND SELF-DISCIPLINE. EVEN SMALL DETAILS SHOULD BE CAREFULLY CHECKED BEFORE FLYING.

- Connect the glider to the main hang point carabiners.
- Check the carabiners, and make sure that the twist lock system closes them automatically.
- Check the harness buckles; they should lock automatically.
- Adjust the harness using a harness hanger. When adjusting under the harness hanger you should familiarise yourself with the harness and its parts. Test all adjustments, study the position and use of the reserve handle.
- Check that the reserve handle and the pins are in the correct position

#### Take Off

Before flying it is extremely important to adjust the harness so that you can easily assume a sitting position when airborne.

- 1) Put the harness onto the shoulders.
- 2) Fasten the leg/chest buckles.
- 3) If necessary, adjust the shoulder straps (the shoulder strap adjustment depends on the size of the pilot; not too tight as some free movement is required so that you can run easily).
- 4) Check that the lumbar straps are adjusted so as to enable the preferred position in flight.
- 5) Check that the chest strap is pre-adjusted correctly.
- 6) Ensure that the leg/chest strap buckles are fastened correctly (closing the buckles incorrectly is a common cause of accidents)

#### Landing

During the final approach, move from the sitting position to the upright position. This should be done early enough to allow for sudden loss of height on approach. There is a high risk of spinal injury in the event of a seated landing. Under no circumstances become complacent about being equipped with effective protection.

#### Safety Information

##### 1. Flying over water (SIV)

TRANSFORMER is not a harness to be used if there is a risk of landing in water. If you land in water using a foam protector it's buoyancy behind the pilot creates a high risk of the pilot's head being pushed under the water. During SIV or flights over water, we recommend the use of a lifejacket equipped with a collar, which will keep the pilot's head above water in the event of loss of consciousness.

##### 2. Landing

Never land in a seated position, it can result in a serious injury, the protection is not intended to replace landing gear.

## 4.2 Towing

Both TRANSFORMER and TRANSFORMER XC are suitable for towing. The tow bridles should be attached to the main carabiners. If you have any doubts ask a qualified towing instructor.

## 4.3 Maintenance

### Maintenance Advice

- The harness should be checked regularly for signs of wear and damage.
- Any damaged parts should be repaired or replaced by the manufacturer.
- The carabiners should be replaced every 5 years.
- These carabiners should never be used for anything other than paragliding (not for climbing etc.).
- All repairs should be carried out by the manufacturer or by qualified persons who have been authorized by the manufacturer, and always using the original materials (thread, webbing, buckles).
- The zip fasteners should be lubricated from time to time, using a silicone spray.

The harness may be cleaned using mild soap and a soft brush. If your harness gets wet, it is advisable to treat your automatic buckles and carabineers with silicone grease. This may also be done as a matter of course from time to time.

## 5. GUARANTEE

TRANSFORMER is guaranteed for two years against any production fault since the date of purchase.

The guarantee does not cover:

- Damage caused by misuse, neglect of regular maintenance, or if the harness is overloaded or misused.
- Damage caused by inappropriate landings.

## 6. DISPOSAL

Even the best products have a limited service life, and once your harness reaches this point, it must be disposed of properly. Please make sure your harness is disposed of in the correct environmental manner or send it back to Sky Paragliders for correct disposal. In case of any doubts regarding the information in the manual, contact your SKY dealer.

Sky Paragliders a.s. Okružní 39 739 11 Frýdlant nad Ostravicí Czech Republic  
Tel. + 420 558 676 088 info@sky-cz.com [www.sky-cz.com](http://www.sky-cz.com)