

Thank you for purchasing Bike&Fly harness. We hope you will find this user's manual comprehensive, definite and hopefully enjoyable as well.

Your SkyBean Team

## **Bike&Fly harness user manual**

**model BNF1, rev.1 1812**



### **INTRODUCTION**

We are very pleased to welcome you to the world of SkyBean and hope that you will enjoy many hours of fantastic flying with your Bike&Fly harness. This product is not recommended for beginner pilots (IPPI level lower than 4). Some necessary skills are required. A pilot has to be able to evaluate current flight conditions individually and always consider that carried load can increase the risk of injury in non-standard flying situations or rough landings.

### **DISCLAIMER**

Please read this manual carefully. The purpose of this manual is to offer guidelines to the pilot using this harness. We advise flying with this harness only when you are 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! This harness, on delivery, meets all the requirements of the EN 1651 regulations. Any alteration of the harness will render its certification invalid.

## GENERAL INFORMATION

### Product Overview

Together with professional manufacturer Sky Paragliders, we have created a unique all-in-one paragliding harness. Besides its purpose as Bike&Fly, standard or Hike&Fly harness, it is suitable for carrying all kinds of load (maximum weight is 25kg). Detachable aluminium construction allows attaching bicycle, electric bicycle, electric scooter, electric wheel or really anything else a pilot might need. When emergency landing is needed, aluminium construction can be detached safely and quickly.

### Certification

The Bike&Fly harness has passed the certification according to load test EN 1651:2016. Any alteration of the harness can invalidate all the aforementioned certifications. After reading this manual we strongly recommend adjusting your harness before your first flight.

### Scope of delivery

Your Bike&Fly harness is delivered with:

- Lightweight Grivel Carabiners
- pre-installed speed system
- pre-installed certified back foam protector (EN 1621-1:2012)
- detachable aluminium frame for load carry

Optional extras:

- certified air-back protector, a product of Sky Paragliders: X-Airbag (LTF test passed)
- front reverse parachute container, we suggest X-Pod from Sky Paragliders

## SETUP

### Basic setup

The harness has classic shoulder and leg straps, which can be adjusted with buckles into the desired flight position. Both ABS straps and T strap must be connected together (pic. 1). Chest strap can be left in wide position and adjusted to comfort position after take-off. The harness has one under-seat and two sides zipped pockets for accessories.



**Picture 1:** Leg and T-straps

### Rucksack mode

The harness is designed to work as rucksack holding attached glider and other stuff (e.g. reverse parachute). Remove security pins from both sides of the bottom of the metal frame and detach (withdraw) frame from the harness. Aluminium ends of the frame have to remain attached to leg straps (red circle in the pic. 2). This parts can be removed in a rare case, but we recommend to leave it like it is. Flip harness seat back and fasten buckles on top in this position (green circle in the pic. 2). Move both halves of the bottom back strap to the front and close it with arm straps inside (orange circle in the pic. 2). It will hold arm straps on sides while wearing the harness in a rucksack mode. Use rubber net to attach glider to the back of the harness (yellow circles in the pic. 2; We recommend to use compress bag). Insert the metal frame from the top between the back of the harness and attached glider (blue arrow in the pic. 2). You can add more load to the top using classic or rubber straps.



**Picture 2:** Conversion to rucksack mode



### **Load setup**

Adjustment of lateral straps affects the flying angle of harness and depends on the weight of the load (pic. 3). For minimal or no load, straps should have a maximum length. When heavy e-bike is attached to harness, adjust lateral straps to the minimum. We recommend setting all harness straps using a static stand and a load with similar weight as it is in flying load.



**Picture 3:** Lateral strap

### **Flight mode**

Put harness from rucksack into flight mode by reverse procedure from the previous paragraph. Insert both legs of metal frame into upper strap loops and pay attention to the secure bottom of the frame to harness by placing security pins into its positions.

### **Attaching bicycle**

Bike&Fly harness is designed to securely hold a bicycle of any category up to 25kg of weight. Please follow these steps for secure attachment:

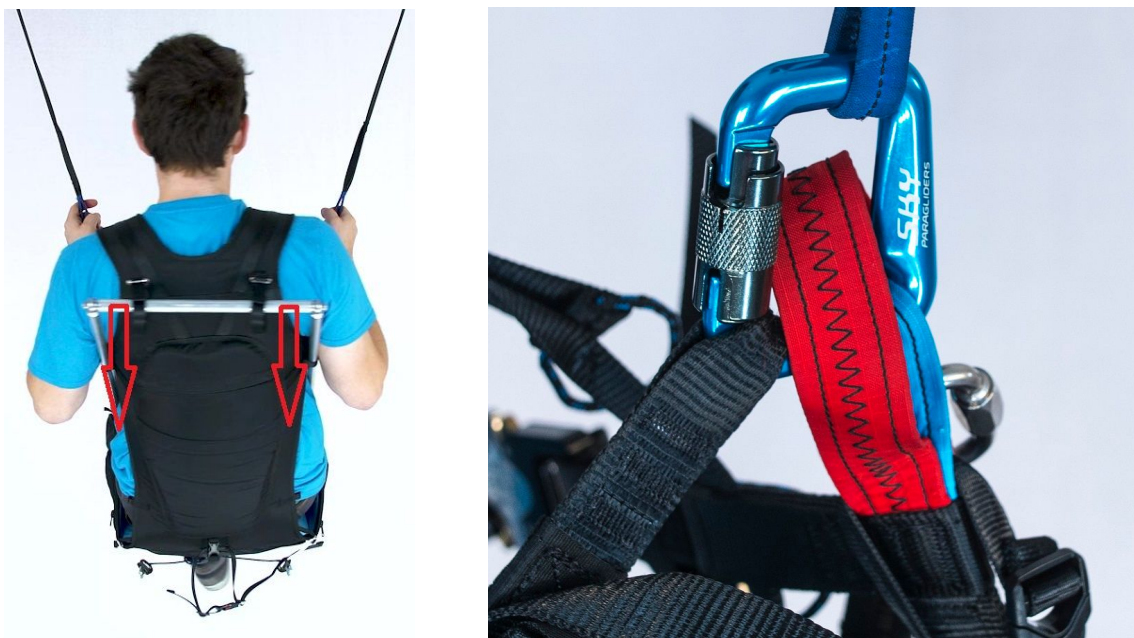
- remove the front wheel from a bicycle
- lay harness on the ground, facing up
- place a bicycle on the harness, under-seat tube parallel to the middle tube of the frame, front sprocket facing up and bottom pedal away of the harness
- connect under-seat tube of a bicycle to the middle tube of metal frame by two straps (yellow circles in the pic. 4)
- connect the bottom back strap to the head tube or a fork of the bicycle (orange circle in the pic. 4)
- turn handlebars to side, facing top
- lay front wheel to the middle of a bicycle
- secure by 3 or 4 lines front wheel to the bicycle and also secure pedals, handlebars and rear wheel against movement (red circles in the pic. 4)
- if a mountain bike is attached, also place a textile cover on the top of the rear wheel (pic. 4) - it prevents a jam of line in the notch of a bike tire



**Picture 4:** Attaching a bicycle to the harness

#### **Attaching different types of load**

A pilot can carry not only a bicycle but really any kind of load up to maximum limit 25kg, like e-bike, electric scooter or electric wheel. While attaching this loads, the middle tube of aluminium frame has to be used as the main attachment point. Connection points have to be symmetrical with the centre of gravity laying aligned with the vertical axis (red arrows in the pic. 5). The load cannot dislocate the balance of the system. It is strongly recommended to try hanging of load at a static stand. Please do not use unproven setups and always keep in mind - safety is the first! Don't do anything that you are not completely sure about.



**Picture 5:** Load attachment and connection to the glider



### Attachment to the glider

The harness must be attached to the glider only by inserting riser loops of the glider into grivel carabiners. Always make sure that carabiner security mechanics is locked.

The harness has two positions for main carabiners, **red** larger loop and **blue** smaller loop (pic. 5). Higher position in red loop provides higher stability and comfort, while lower blue loop gives more sensitivity and higher weight shift influence. We recommend using the higher red loop for the first flight.

### Fitting the optional front mount reserve system

The harness doesn't have specified room for reserve parachute, so the front container must be used (pic. 6).

#### Important advice for using a front container:

A front container should hang on the other side than carabiner gates. This is essential so when the reserve is thrown the reserve connections run upwards unimpeded. In addition, the reserve must be hung in the carabiners before hooking up the paraglider risers. The reserve parachute can be deployed with the right or left hand when the front container is used.



**Picture 6:** Reverse parachute attachment and airbag connection

### Fitting the optional X-airbag kit

Optional air-back protector (X-Airbag) can be installed to the bottom of the harness. There are four connection points, two on each side (red circles in the pic. 6).

### **Flying with Bike&Fly harness**

The forward launch can be performed safely and easily, however, a pilot has to keep in mind all particularities and double check if lines of the glider are not stuck or hanged, so they can prevent to inflate glider regularly. Therefore we recommend, if possible, to use reverse launch technique, so a pilot can see inflated glider above and that there are no obstacles between pilot and glider. During a flight, a pilot doesn't feel the weight of the load, but some amount of momentum is added. Landing with Bike&Fly harness can be performed normally with few steps when touching the ground, but a pilot has to have some skills with cross-country flying, like checking the wind direction before landing on an unknown place. Please keep in mind that you can damage your load or injure yourself if you sit during landing.

### **Emergency landing**

If a pilot cannot land on adequate landing place and is forced to land on trees, into water or another potential dangerous surface, it is advised to drop off your load. If this has to be performed, prepare aluminium frame for dropping out. Release two upper and one lower buckle, withdraw security pins. In this state, you can withdraw frame and let it go in several seconds. **WARNING! - Use this emergency procedure only when it is really necessary and always take care of what is happening below you.** Please note, that you are responsible for any damage caused by load dropping to your load or to subjects below you.

### **Flying without load**

Bike&Fly harness is designed to carry a bicycle or other kind of load hanged on the aluminium frame, however, it can be also used as a standard or Hike&Fly harness when aluminium frame is removed. In that case, adjust lateral straps to maximum length to achieve comfort flying position. The harness can be also used with speed glide, in this case, we recommend to remove carbon seat plate.

### **Towing**

Bike&Fly harness was developed for mountain based flying, but it is also suitable for towing. The tow bridles should be attached to the main carabiners. If you have any doubts, ask a qualified towing instructor.

## **TECHNICAL SPECIFICATIONS**

Maximum clip-in weight is **120 kg**.

Pilot's height between **160-200 cm**.

Seat to attachment points distance is **48** and **52cm**.

Chest strap width is **48 cm**.

Harness weight with/without aluminium frame is **4/3.2 kg**.

The harness has **EN certification**.

## MAINTENANCE

Bike&Fly harness is made from strong high tech materials. However, care and attention should be exercised when using Bike&Fly harness to avoid abnormal contact with abrasive surfaces. Grivel carabiners are lightweight and require special attention. Avoid side loads, impacts and abrasion. If you have suspected any damage, replace them immediately. Please follow these points:

- The harness should be checked regularly for signs of wear and damage.
- The carabiners should be replaced every 3 years or 300 flights. Avoid side loading or impacts to these lightweight carabiners.
- All repairs should be carried out by the manufacturer or by qualified people who have been authorized by the manufacturer
- The zippers should be lubricated from time to time using a silicone spray.
- The harness may be cleaned using mild soap and a soft brush.
- Never use aggressive chemicals which could be harmful to the fabric, webbings, stitching and weaken the overall integrity of the harness.

## WARRANTY

Bike&Fly harness has a warranty period of 3 years. The warranty shall not cover:

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

## DISPOSAL

Once the harness has reached the end of its service life it should be disposed of in an environmentally responsible manner. If you wish you may return the harness to SkyBean and we'll happily make sure that this is taken care of.

### Contact information

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