



*PARAGLIDER*

Version: 1.0

Date: 30.10.2015

***SPITFIRE 2***

Manual (EN)



## INFORMATION

SWING Flugsportgeräte GmbH reserves the right to alter or add to the contents of this Manual at any time. You should therefore regularly visit our website:

**[www.swing.de](http://www.swing.de)**

where you will find additional information relating to your paraglider and any changes to the Manual. There is further information about the SWING website in the section “SWING on the World Wide Web”.

The date and version number of this Manual are given on the front page.

Express written consent from SWING Flugsportgeräte GmbH is required for any duplication of this Manual, in whole or in part (with the exception of short quotations in specialist articles), and in any form or by any means, whether it be electronic or mechanical.

The data and information contained herein can be altered without prior notification. The fact that this Manual has been made available does not confer any claim to the product descriptions, common or trade names or other intellectual property.

## Dear Spitfire 2 pilot

You have just purchased a sophisticated product. We place great importance on our workmanship and the high quality of the materials used.

If you have any questions which are not answered in this Manual, please do not hesitate to contact your SWING dealer or SWING directly, Tel: +49 81 41 32 77 888 - info@swing.de

*The SWING Team*



### WARNING

**Read this Manual before using your glider!**

# Contents

<b>01 INTRODUCTION .....</b>	<b>6</b>
MANUAL.....	6
<i>Special text</i> .....	6
<i>Series of instructions</i> .....	7
<i>Lists of parts</i> .....	7
<i>Bullet points</i> .....	7
<i>Manual on the Internet</i> .....	7
<i>SWING Flugsportgeräte and the environment</i> .....	7
<i>Respect for nature and the environment</i> .....	7
<i>Environmentally-friendly recycling</i> .....	7
<b>02 LIMITATIONS OF LIABILITY AND WARRANTY EXCLUSIONS.....</b>	<b>8</b>
INFORMATION .....	8
ASSUMPTION OF RISK .....	8
EXCLUSION OF LIABILITY, WAIVER OF CLAIMS.....	8
<b>03 SAFETY.....</b>	<b>9</b>
LOAD TEST.....	9
BASIC RULES .....	9
SAFETY ADVICE .....	9
SAFETY NOTICES.....	9
SAFETY RULES.....	10
<b>04 TECHNICAL DESCRIPTION .....</b>	<b>11</b>
MANUFACTURE .....	11
INCLUDED IN DELIVERY.....	11
RISERS AND TRIMMER .....	11
CONTROL HANDLES.....	12
TECHNICAL DATA .....	12
<b>05 OPERATING THE SPITFIRE 2.....</b>	<b>13</b>
BEFORE THE FIRST FLIGHT .....	13
LAUNCH.....	13
CONDUCT AT SKI AREAS .....	13
<b>06 LOOKING AFTER THE GLIDER.....</b>	<b>13</b>
STORAGE.....	13
<i>The speed bag</i> .....	13
<i>Storage</i> .....	13
CARE OF YOUR SPEED RIDER .....	14
<i>Cleaning</i> .....	14
REPAIRS.....	14
<i>Small repairs to the glider</i> .....	14
<i>SWING workshops</i> .....	14

<i>Inspection periods</i> .....	14
<b>07 SWING ON THE WORLD WIDE WEB</b> .....	<b>15</b>
SWING WEBSITE .....	15
PRODUCT REGISTRATION .....	15
SWING'S ONLINE SHOP .....	15
FACEBOOK, TWITTER & YOUTUBE .....	15
<i>Paragliding</i> .....	15
<i>Speed gliding</i> .....	15
SWING TV .....	16
SWING App .....	16
<b>APPENDIX</b> .....	<b>17</b>
ADDRESSES .....	17
SWING Flugsportgeräte GmbH .....	17
Paraglider recycling .....	17
DHV .....	17
EAPR .....	17
DULV .....	17
VERSIONS .....	17
SPEED RIDER DETAILS .....	18
PILOT DETAILS / PROOF OF OWNERSHIP .....	18
INSPECTION AND REPAIRS CARRIED OUT: .....	19
NOTES: .....	20

# 01 Introduction

## Manual

You must read this Manual carefully before using the speed rider for the first time. This will allow you to acquaint yourself with its new functions and learn the best way to fly it in various situations. It will also explain how to get the most out of your speed rider.

Information in this Manual on design of the speed rider, technical data and illustrations are subject to change. We reserve the right to make changes without prior notification.

Special text giving safety information is identified in this Manual in accordance with the ANSI Z535.6 standard.

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### Special text



#### DANGER

Sections of text headed “Danger” indicate a situation where there is **imminent** danger, which in all probability **will lead to death or serious injury**, if the instructions given are not followed.



#### WARNING

Sections of text headed “Warning” indicate a potentially dangerous situation, which **may lead to death or serious injury**, if the instructions are not followed.



#### CAUTION

Sections of text headed “Caution” indicate a potentially dangerous situation, which may lead to **minor or slight injury**, if the instructions are not followed.



#### PLEASE NOTE

Sections of text headed “Please note” indicate possible **damage to property**, which may occur if the instructions are not followed.



#### TIP

Sections of text headed “Tip” give advice or tips which will make it easier to use your speed rider.

## Series of instructions

In this Manual, instructions which must be followed in a certain order are numbered consecutively.

- < Where there is a series of pictures with step-by-step instructions, each step has the same number as the corresponding picture.
- d Letters are used where there is a series of pictures but the order is not relevant.

## Lists of parts

- Numbers circled in red refer to various parts of the item pictured. A list of the numbers and the name of the part labelled follows the picture.

## Bullet points

Bullet points are used in the Manual for lists.

Example:

- risers
- lines

## Manual on the Internet

Additional information about your speed rider and any updates to the Manual can be found on our website at [www.swing.de](http://www.swing.de).

This Manual was current at the time of going to print. This Manual can be downloaded from SWING's website prior to print.

## SWING Flugsportgeräte and the environment

Protection of the environment, safety and quality are the three core values of SWING Flugsportgeräte GmbH and they have implications for everything we do. We also believe that our customers share our environmental awareness.

## Respect for nature and the environment

You can easily play a part in protecting the environment by practising our sport in such a way that there is no damage to nature and the areas in which we fly. Keep to marked trails, take your rubbish away with you, refrain from making unnecessary noise and respect the sensitive biological equilibrium of nature. Consideration for nature is required even at the launch site!

Smokers – please do not leave any cigarette butts, matches etc. at flying sites.

Paragliding is, of course, an outdoor sport – protect and preserve our planet's resources.

## Environmentally-friendly recycling

SWING gives consideration to the entire life cycle of its products, the final stage of which is recycling in an environmentally-friendly manner. The synthetic materials used in a glider must be disposed of properly. If you are not able to arrange appropriate disposal, SWING will be happy to recycle the glider for you. Send the glider with a short note to this effect to the address given in the Appendix.

## 02 Limitations of liability and warranty exclusions

### Information

You confirm that, by using the SWING speed rider for the first time, you have read and understood this manual in its entirety, including all instructions and warnings which are contained herein.

Furthermore, you agree to ensure that any other users of your SWING speed rider have also read and understood this manual in its entirety before they use it for the first time, including all instructions and warnings which are contained herein. This applies whether the speed rider is borrowed for a short time or taken permanently.

### Assumption of risk

Use of the SWING speed rider and of its component parts involves certain risks of personal injury or death for the user of the product or for third parties.

By using the SWING speed rider, you agree to assume and accept any and all risks of injury, whether known or unknown, likely or unlikely.

The risks inherent in this sport can be reduced to a large extent by observing the safety advice and warnings in this Manual and by exercising general common sense. However, they can never be excluded completely.

### Exclusion of liability, waiver of claims

By purchasing the SWING speed rider, you confirm that you agree with to following, to the extent permitted by law:

- to waive any and all claims of any kind from use of the SWING speed rider and any of its components, which may exist against SWING Flugsportgeräte GmbH and any other parties now or in the future.
- to release SWING Flugsportgeräte GmbH and any other parties from any and all claims for loss, damage, injury or expense which you, your next of kin or relations or any other user of your SWING speed rider may suffer as a result of using the SWING speed rider, including liability arising under law and contract on the part of SWING Flugsportgeräte GmbH and any other parties related to the design and manufacture of the SWING speed rider and any of its components.
- in the event of death or disability, all of the provisions contained herein shall take effect and be binding upon the user's heirs, next of kin and relatives, executors, administrators, assigns and legal representatives. SWING Flugsportgeräte GmbH and all other parties have not made any oral or written representations and expressly deny having done so, with the exception of what is set out in this Manual.



## 03 Safety



### WARNING

#### SPEED RIDING IS DANGEROUS!

This speed rider is a piece of sports equipment and NOT a piece of aviation equipment. It therefore does not have aviation certification.

For this reason, SWING Flugsportgeräte GmbH specifically states that no claims for liability can be made against it in connection with use of the speed rider.

### Load test

In addition to the extensive practical tests, the strength of the Spitfire 2 has also been tested in accordance with DIN EN 926-1.

### Basic rules

- 1) Extreme care is called for when using this equipment.
- 2) This product should only be used by people who are in good physical condition.
- 3) The product must at no time be used in a manner which is careless, frivolous or negligent.
- 4) Users are responsible for their own safety and there must be no danger to third parties.
- 5) The user alone takes full responsibility for any injury which might arise as a result of use of this product.
- 6) This Manual must be read carefully before using the speed rider for the first time.
- 7) The laws applying to use of this product in the relevant country must be observed.



### WARNING

The safety advice given below must be followed in all circumstances. Failure to do so could lead to serious injuries or even death.

### Safety advice

Few other sports demand such a high level of individual responsibility as speed riding. Prudence and risk-awareness are basic requirements for the safe practice of the sport. Carelessness and overestimating one's own abilities can quickly lead to critical situations. A reliable assessment of conditions for flying and the terrain is particularly important. Most serious accidents are caused by pilots misjudging the weather for flying or their own abilities.

SWING recommends that you always wear a helmet, gloves, firm shoes with ankle-support and suitable clothing.

Only use the Spitfire 2 if the wind direction, wind speed and current and forecasted weather conditions can be considered safe.

Observe the other specific safety advice in the various sections of this Manual.

### Safety notices

Safety notices are issued when defects arise during use of a glider which could possibly also affect other gliders of the same model.

The notices contain instructions on how to inspect the gliders concerned for possible faults and the steps required to rectify any faults.

SWING publishes on its website any technical safety notices and airworthiness instructions which are issued in respect of SWING products.

## Safety rules

The greatest risk in speed flying and speed riding is their simplicity. This can cause users to be tempted into forgetting or ignoring risks. Exercise particular care, especially as speed riding starts to feel too "normal".

- **Assess objective risks**

**WEATHER:** never use the Spitfire 2 if there is a föhn wind, storm or cold front. Your speed rider may offer maximum safety but the risks caused by extreme turbulence are unpredictable.

**AVALANCHE:** In unstable areas, make sure you have the appropriate skills/training and equipment (avalanche transceiver, snow shovel etc.)

- **Inspect your equipment**

Inspect your equipment thoroughly before each launch and do not launch if you discover any damage. Adjust your equipment according to the conditions. We recommend that you have a reserve chute for bigger slope distances

- **Assess your own well-being**

Never go speed riding if you are not well, whether you are physically unwell or have other concerns. Take a rest day – the mountains will always be there

- **WHAT IF? – Plan B**

Do not make any impulsive decisions. Take time to analyse the situation. Always make a plan B (e.g. choice of route, emergency landing areas etc.)

- **ALWAYS CARRY OUT A SAFETY RUN**

Reconnoitre a new route by making a run with sufficient height. Be on the lookout for potential obstacles. Ensure when flying near ground level that no third parties will be injured.

- **Foot launch = increased risk**

Please bear in mind that the Spitfire 2 was designed for use with skis

- **Do not be afraid to speak out**

If you feel that others are overestimating their abilities. Likewise:

- **Accept comments from others**

Even if it can be hard to acknowledge mistakes.

- **Analyse your mistakes**

Analyse any close calls as if it had been an actual accident and learn the necessary lessons. Avoid doing the same thing, because next time it could be too late.

- **NO FRONT RISER TURNS**

NEVER pull down the front risers (A-risers). The Spitfire 2 will immediately react by collapsing!

- **NO RISK – NO FUN, NO LIMITS – NO LIFE**

Respect your limits and do not go beyond them just because you are with more experienced pilots. Have the courage to say "enough"!

## 04 Technical Description

### Manufacture

Your Spitfire 2 was manufactured using the latest machines and manufacturing techniques.

A thorough quality control is carried out after every stage in manufacture.

The quality control of course includes inspection of the materials used as well. This allows us to all but exclude the possibility of any material defects and to trace the exact origin of the materials used.

### Included in delivery

- SWING Spitfire 2 speed rider
- Speed bag
- Inner bag
- Manual



#### TIP

Familiarise yourself thoroughly with the equipment before your first run.

### Risers and trimmer

The riser of the speed rider is designed in such a way that it can be used while wearing gloves.

On the riser of the Spitfire 2, there is a red mark on the trimmer strap where the green and red arrows meet. It is 3cm above neutral trim and shows the trimmer setting recommended if the speed rider is to be used for a foot launch.



*Fig. 1 Spitfire 2 riser showing mark and turn-over seam*

The Spitfire 2 is fitted with trimmers. Even if the trim range seems short, it has a great impact on the “dive and speed” of your Spitfire 2. Keep the trimmer closed for your first runs (zero position) and familiarise yourself with that.



*Fig. 2: Spitfire 2 riser trimmer closed*

*Fig. 3: Spitfire 2 riser trimmer open*

The trimmer allows the best glide when closed, e.g. to reach the next snow field or to glide away from the territory which is not suitable for speed riding. Open the trimmers to 'ride', when there is a lot of wind, to use the 'dive' or to lose height.



**DANGER**

Open the trimmers gradually. The Speed & Dive increases markedly with open trimmers. After you have familiarised yourself with the Spitfire 2 with closed trimmers, you should slowly and gradually test out the full trimmer travel, as 'dive' in particular increases greatly, so the glide angle reduces. Never fly with the trimmers completely open when there is turbulence.

The trimmer strap can be modified. In the standard setting, a turned-over seam restricts trim travel (see photo). Experienced and advanced speed rider pilots can extend trim travel by carefully undoing the stitching on the seam.

**Control handles**

The control handles on the Spitfire 2 are made of a strap padded with neoprene. The best way to hold them is shown in the photo. In this way, they are ideally adjusted for the Spitfire 2. For safety reasons, we generally recommend that you loop your hands through the brake handles.



*Fig. 4: Recommendation: hand looped through the brake handle*

**Technical Data**

Size	Comp*	8.5	9.5	11	13	15	Twin**
Cells	21	21	21	21	17	17	17
Flat Area (m <sup>2</sup> )	8	8.5	9.5	11	13	15	18
Projected Area (m <sup>2</sup> )	6.73	7.28	8.38	9.69	11.64	13.43	16.12
Wingspan (m)	5.03	5.18	5.48	5.9	6.42	6.89	7.54
Projected span (m)	4.5	4.21	4.52	4.86	5.43	5.83	6.39
Aspect ratio	3.16	3.16	3.16	3.16	3.16	3.16	3.16
Projected AR	2.44	2.44	2.44	2.44	2.53	2.53	2.53
Canopy weight (kg)	1.85	1.95	2.1	2.3	2.4	2.65	3.1

\*) available only for SWING Speedflying Team members or by recommendation from a SST member

\*\*\*) technical construction corresponds to Spitfire 18

## 05 Operating the Spitfire 2

### Before the first flight

Familiarise yourself with the Spitfire 2 before using it for the first time by carrying out some practice inflations and trying out some runs on a training slope.

Your first runs should take place in a straightforward area which is familiar to you.

### Launch

With the Spitfire 2, it is not necessary to hold the A-risers.

Make sure that both trimmers on the Spitfire 2 are closed for your first launches.

### Conduct at ski areas

Here are a few important rules which must be followed at all times in skiing areas:

- First clarify local conditions, e.g. with the lift operator.
- In general keep to the side of the slopes when speed-riding.
- If there are designated speed riding areas, then keep to those.
- Pack away your Spitfire 2 into the speed bag before you go back to the ski slope.
- Make sure that you do not get caught up anywhere with your equipment, so as not to interfere with the lift operation.
- Never put any third parties at risk, especially skiers.

Please observe these rules so that other speed rider pilots can continue to use the areas too.

## 06 Looking after the glider

### Storage

#### The speed bag

Always transport your Spitfire 2 in the speed bag provided. The speed bag makes it considerably easier for you to use the Spitfire 2 and is compulsory in most speed riding areas.

When you launch, simply take the speed rider out of the speed bag, roll up the speed bag and put it away.

After you have finished a run, gather together the Spitfire 2, take out the speed bag and lay it out open beside the speed rider. Place the gathered-up speed rider on top of the speed bag, put it away into the speed bag and do up the speed bag. Hang the speed bag over your shoulder and make your way to the lift.

Always make sure when you are putting away the Spitfire 2 that you have put all of the lines and straps into the speed bag and that nothing is hanging out which could get caught. After you have finished speed riding for the day, you can also attach the risers to the speed bag strap, by feeding the strap through the riser loops.

#### Storage

Store your speed riding equipment away from UV light in a dry room which is well-ventilated and has a constant temperature. Remove it from the backpack and open up the speed bag so that air can get in.

Make sure that you do not put away the Spitfire 2 while it is wet. It should always be dried out after use, preferably overnight in a room as described above.

## Care of your speed rider

### Cleaning

If you do have to clean the speed rider, use only lukewarm fresh water and a soft sponge.



### PLEASE NOTE

Harsh chemicals, high-pressure cleaners or steamers will destroy your speed rider.

Only clean the speed rider if it is absolutely necessary.

## Repairs

### Small repairs to the glider

You can repair small tears in the wing yourself using self-adhesive sail material, provided that the tears are in places which do not bear heavy loads, are not at the seams and are no bigger than 3 cm. Replacement lines for the Spitfire 2 can be ordered direct from us online at:

[www.swing.de](http://www.swing.de) → Service → Line service

If line groups are replaced, this must be carried out by a SWING workshop.

Check the Spitfire 2's trim whenever the lines have been replaced.



### WARNING

Damaged lines must be replaced immediately.

### SWING workshops

All repairs and servicing should be carried out by a SWING-authorized workshop or directly by SWING. SWING workshops have trained staff, original SWING parts and the necessary know-how, all of which will ensure top quality.

### Inspection periods

The Spitfire 2 must be inspected every 100 hours or once a year. If you need to replace damaged or worn-out parts, use only original parts from SWING Flugsportgeräte GmbH

## 07 SWING on the World Wide Web

### SWING website

SWING has a comprehensive website, which provides additional information about the Spitfire 2 and many other issues related to paragliding and speed riding. SWING's website is the first port of call for SWING's worldwide following:

**[www.swing.de](http://www.swing.de)**

On SWING's website, you will find an extensive range of accessories for your Spitfire 2, useful products for pilots, as well as additional information and accessories for pilots.

You will also find links there to other services and websites:

- Product registration
- SWING's online shop
- Facebook, Twitter & Youtube

These websites and their content are provided for your use. The content of SWING's websites has been made available for your use on an "as is" and "as available" basis. SWING reserves the right to alter the websites at any time or to block access to them.

### Product registration

Registration of SWING paragliders is easy and gives you many advantages. In addition to important safety notices, you will receive advance information about, e.g. new products, upgrades, events and special offers.

Registration is a prerequisite for a valid warranty (refer here also to the section "Warranty"). In addition, SWING sends any safety notices and information for the

registered product immediately to the email address submitted. Your email address will not be provided to any third parties.

### SWING's online shop



At SWING's online shop you are able to obtain directly from SWING the full range of paraglider accessories, clothing, accessories and reserves. It is easy to place an online order and payment is made by credit card or Paypal.

### Facebook, Twitter & Youtube



SWING is very active with the new media of Facebook, Twitter and youtube and has various websites which are updated daily on various topics related to aviation and SWING products.

### Paragliding

[www.facebook.com/pages/SWING.Paragliders](http://www.facebook.com/pages/SWING.Paragliders)  
<http://twitter.com/swingparaglider>

### Speed gliding

[www.facebook.com/SwingSpeedflyingTeam](http://www.facebook.com/SwingSpeedflyingTeam)  
<http://twitter.com/SSTSpiritfire>

## SWING TV



On SWING TV, SWING puts official video footage and footage by pilots, under these categories:

- Paragliding
- Speed flying
- Accessories
- Video footage by pilots

<https://vimeo.com/swingparagliders>

<https://www.youtube.com/channel/UCVituxPWODYREVJrlsFbfbA>

## SWING App



We recommend that you use our Smartphone App so that you can keep up-to-date at all times.

This brings the latest news, photos and videos, as well as information on our products like technical data, manuals and service instructions directly to your smartphone or tablet.

Now we wish you

**A lot of fun and many inspiring runs with your Spitfire 2**

Your

**SWING Team**



# Appendix

## Addresses

### **SWING Flugsportgeräte GmbH**

An der Leiten 4  
82290 Landsberied  
Germany  
Tel.: +49 (0) 8141 3277 - 888  
Fax: +49 (0) 8141 3277 - 870  
Email: info@swing.de  
www.swing.de

### **Paragliders recycling**

SWING Flugsportgeräte GmbH  
- Recycling Service -  
An der Leiten 4  
82290 Landsberied  
Germany

### **DHV**

Deutscher Hängegleiterverband e.V.  
Miesbacher Str. 2 (street address)  
Postfach 88 (postal address)  
83701 Gmund am Tegernsee  
Germany  
Tel.: +49 (0) 8022 9675 - 0  
Fax: +49 (0) 8022 9675 - 99  
Email: dhv@dhv.de  
www.dhv.de

### **EAPR**

European Academy of Parachute Rigging  
Marktstr. 11  
87730 Bad Grönenbach  
Germany  
Tel.: +49 (0) 8334 - 534470  
Fax: +49 (0) 8334 - 534469  
Email: info@para-academy.eu  
www.para-academy.eu

### **DULV**

Deutscher UltraleichtRunverband e.V.  
Mühlweg 9  
71577 Großerlach-Morbach  
Germany  
Tel.: +49 (0) 7192 93014 - 0  
e-mail: info@dulv.de  
www.dulv.de

### **Versions**

Version 1.0  
Date: 30.10.2015  
First version of the Instruction Manual

## Speed rider details

Model:	Size:	Colour:	Serial number:
Spitfire 2			Spf2 ___/___ - ___/___/___ - ___/___/___/___

Check flight (date):	___/___/ - ___/___/ 201__
Mark and signature:	_____

## Pilot details / Proof of ownership

1st Owner:	
Name:	
Address:	
Telephone:	
Email:	
2nd Owner:	
Name:	
Address:	
Telephone:	
Email:	
3rd Owner:	
Name:	
Address:	
Telephone:	
Email:	



**Notes:**




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