# FLAREV

17

10

SPEEDFLYING | SPEEDRIDING | SNOWKITING USER MANUAL

1-11-1-2-0

# FLARE

#### TABLE OF CONTENTS

1	Introduction	29
2	Description, Technical Data, Line System	30
3	Riser / FLARE SYSTEM	34
4	Harness	36
5	Flight Techniques and Characteristics	36
6	Descent Techniques	40
7	Extreme Flight Maneuvers	42
8	Materials	44
9	Recommendation Tables	45
10	Maintenance	46
11	Disposal	47
12	Maintenance-Check	48
13	Homologation	48
14	Closing Words	49



#### Welcome to FLARE!

Heartfelt congratulations on acquiring your new FLARE LINE, and a sincere thank you for choosing us as your trusted partner in adventure. This manual is your gateway to swiftly acquainting yourself with your cutting-edge parakite, ensuring a thrilling and enduring experience.

Our dream? To redefine the very essence of flight beyond mere left and right, sparking a revolution in airborne exploration by introducing the true third dimension to your aerial maneuvers. Two decades of development wisdom from skywalk paragliders and FLYSURFER Kiteboarding has culminated in an unparalleled creation, a revelation that transcends conventional boundaries. It's new, it's innovative, and it's a dream realized—the ultimate wing system seamlessly melding power, exhilaration, and safety from the zenith of kiteboarding and paragliding expertise.

We welcome your questions, value your comments, and encourage constructive critique. Feel free to reach out for additional information at any time!

Here's to soaring beyond limits with FLARE!

Your ELADE Team	Edition 1/11_2023
	The latest version of the manual can be found on
#Beyond_Gravity	www.go-flare.com

30 Description

### LINE

DISCLAIMER AND LIABILITY WAIVER

FLARE

#### **2 DESCRIPTION**

Introducing the FLARE LINE - a remarkably versatile masterpiece meticulously crafted for your adrenaline-packed speedflying adventure. The LINE is the pioneering speed wing in our product range that grants you absolute command over both speed and glide ratio, all achieved effortlessly with just one input: your control handles. Elevate your experience with the groundbreaking FLARE LINE, where control meets exhilaration in perfect balance.

#### PILOT REQUIREMENTS

The FLARE LINE is equipped with a so-called 'reflex' profile, so it behaves differently than a 'normal' parakite. This requires new skills and a different piloting style.

The FLARE LINE requires a pilot with regular speedflying experience on wings smaller than 13m<sup>2</sup>, solid active flying experience, dealing with canopy collapses. Please be honest with yourself, judge yourskill-level correctly, and choose a bigger size when getting into FLARING, especially with the LINE.

> YOU WILL FIND THE TYPE CERTIFICATE WITH ALL TECHNICAL DATA IN THE CENTRE OF THE PARAKITE. YOU WILL ALSO FIND THE SERIAL NUMBER THERE.



To waive any and all claims, however they may arise, from use of FLARE LINE and any of its components, which you have or may in the future have against Skywalk GmbH & Co. KG and any other parties. To release Skywalk GmbH & Co. KG and any other parties from any and all claims for loss, damage, injury or expense that you, your next of kin or relations or any otheruser of your FLARE LINE may suffer as a result of use

thereof, including liability arising under law and contract on the part of Skywalk GmbH & Co. KG and any other parties in the design and manufacture of the FLARE LINE and any of its components.

In the event of death or disability, all of the provisions contained herein shall be effective and binding upon the user's heirs, next of kin and relatives, executors, administrators, assigns and legal representatives. Skywalk GmbH & Co. KG 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 herein and in the FLARE LINE manual.

contained in this manual. The risks inherent in this sport can be reduced to a large extent by observing the warning guidelines contained in this manual and by using common sense.

extent of the care required in a particular case, by observing the warnings

EXEMPTION FROM LIABILITY, WAIVER OF CLAIMS, ASSUMPTION OF RISK You agree that, before initially using the FLARE LINE, you have read and

understood the manual in its entirety, including all applicable instructions and warnings. You also agree, before allowing any other person to use your

FLARE LINE, to have them read and understand said manual as well.

#### **EXCLUSION OF LIABILITY, WAIVER OF CLAIMS**

By making a purchase of the FLARE LINE, you agree to the following points,

to the extent permitted by law:



FLARE

Ц

#### TECHNICAL DATA

SIZE	8,0	9,0	10,0	11,0	13,0	15,0					
COLOR	I	CERAMIC / DUSTY PINK									
FLAT AREA	8M <sup>2</sup>	9M <sup>2</sup>	10M <sup>2</sup>	11M <sup>2</sup>	13M <sup>2</sup>	15M <sup>2</sup>					
NR CELLS	33	33	33	33	33	33					
FLAT WINGSPAN	5,7M	6,0M	6,3M	6,7M	7,3M	8,1M					
MAX CHORD	1,7 M	1,8M	1,9M	2,0M	2,1M	2,2M					
FLAT AR	4,0	4,0	4,0	4,1	4,2	4,4					
PROJECTED AREA	6,8M <sup>2</sup>	7,7 M <sup>2</sup>	8,5 M <sup>2</sup>	9,4M <sup>2</sup>	11,1M <sup>2</sup>	12,8 M <sup>2</sup>					
PARAKITE WEIGHT	1,9KG	2,0KG	2,2KG	2,3KG	2,6KG	2,9KG					

#### LINE SYSTEM

The choice of material for our FLARE products is designed for durability and safety.

The FLARE LINE is equipped with 3 A, 3 B, 3 C main lines and a control main line that is connected to the harness. The control line is connected to a 'knot ladder' on the control handle. The setting should only be changed by a FLARE certified partner!

To provide a better overview and to make sorting easier, the lines have different colors:

- > The as1, as2, as3 mainlines are magenta
- > The bs1, bs2, bs3 mainlines orange
- > The cs1, cs2, cs3 mainlines are blue
- > The brs1-line is orange

The FLARE LINE is equipped with 3 risers on each side.

- > All A-lines lead to one A-riser.
- > The B-lines and the stabilo line lead to the B-riser.
- > The C-lines lead to the C-riser.



FLYING A PARAKITE REQUIRES MAXIMUM CAUTION AT ALL TIMES. WE REMIND YOU THAT YOU FLY YOUR PARAKITE AT YOUR OWN RISK! AS THE PILOT, IT IS YOUR RESPONSIBILITY TO ENSURE THE AIRWORTHINESS OF YOUR PARAKITE BEFORE EVERY FLIGHT. REMEMBER THAT MENTAL FITNESS IS ALSO A RISK FACTOR.

The FLARE LINE may not be flown:

- > outside of the minimum and maximum recommended takeoff weights
- > in strong thermals
- > in rain, snow, or in extremely turbulent weather conditions
- > in clouds or fog (visual flight)
- > with insufficient pilot experience
- > as a powerkite on the water (Kitesurfing, Kiteboarding, Kitefoiling)
- > if the canopy is wet
- > at temperatures under -30°C or over 50°C
- > for acrobatic flight (flight maneuvers at an angle of more than 90 degrees)
- > with more than one person

During production, the FLARE LINE underwent carefully selected quality controls and was inspected once again before shipping. Keep in mind that a parakite can only be flown while observing the laws of the country in which it is flown.



Ц

0

0

#### **3 RISER / FLARE SYSTEM**

The "FLARE System" is a matrix of pulleys around the B and C lines and combines the control handles with the accelerator in the control handles. This allows controlling the FLARE LINE with just your hands.

The C-level moves with a ratio of 1/2,5 of the control travel. The B-level moves with a ratio of 1/5 of the control travel.

That means you can fully adjust your glide ratio by completely changing the angle of attack of your wing. This combination was the key to success. Your control handle is connected to the elastic "Free Control" line at the attachment point of the riser. This means you always have quick and reliable access to the control handles!

**DON'T r**elease the control handle while flying and always stay in the control loops.



**DON'T** adjust the setting on your control main line (this is a tool to trim your FLARE LINE after many flying hours, and we recommend that it is only adjusted by FLARE itself or one of our FLARE-PARTNER).

**NEVER** steer the FLARE LINE by ONLY pulling the main control line. Always steer in combination with the c-pulley line and the main control line.





Check our tutorials on youtube for further information.

#### CONTROL SETTINGS ON THE FLARE SYSTEM

Best glide position:

The FLARE LINE has its best glide ratio when you pull your control handles to the same level of the ends of your risers.



Full speed position:

Your 'full speed' position is when you fully release the control handle until they are limited by the pulley from the C-Riser. (Always keep your hands in the control loops).

Minimum speed position:

If you pull the control handles lower (20-30cm) than the end of the risers, you are very close to the stall speed. (Never fly at 'minimum speed' position close to the ground, as there is no speed left for a FLARE. Always allow yourself enough manoevring room for a flare landing. Otherwise you have to take into account a high speed-and sink rate.).



Ц

#### **4 HARNESS**

The FLARE LINE can be flown with all certified harnesses of the GH type (harnesses without solid cross-bracing).

Please note that the relative braking distance and agility of the parakite can differ significantly!

#### **5 FLIGHT TECHNIQUES AND CHARACTERISTICS**

#### PREFLIGHT CHECK AND MAINTENANCE

It is essential to check your FLARE equipment thoroughly before every flight to see if it has any defects. Also, check the parakite after long flights and after long storage.

Check thoroughly:

- > All seams on the harness, the rescue chute attachments and the risers
- > That all connecting parts, line shackles and carabiners are closed
- > The control line knots right and left, following all lines from the risers to the parakite canopy.
- > All other lines from the risers to the canopy
- > All line attachment points on the canopy
- > The top and bottom of the wing for damage and wear and tear
- > The profiles and the crossports on the inside
- > Whether the glider is dry

DO NOT LAUNCH IF YOU FIND ANY DEFECTS, EVEN SMALL ONES! IF YOU FIND ANY SIGNS OF DAMAGE OR ABNORMAL WEAR AND TEAR, CONTACT YOUR FLARE-PARTNER OR FLARE DIRECTLY.

#### LAYING OUT THE PARAKITE

When you use your parakite for the first time we recommend that you practise some inflations and try some simple flights at a training site with a FLARE-PARTNER. This way you are able to get used to your FLARE LINE.

Lay out the canopy of the FLARE LINE so that the leading edge is clearly arched. The middle of the canopy should form the deepest point of your parakite. This way the A-lines are tensioned first in the middle whilst inflating. The parakite fills evenly from the centre to the wing tip. This ensures a controlled and safe launch. Make sure to have no sand or other objects in your wing. The sorting of the three color-coded lines must be comprehensive. All lines from the risers to the parakite canopy must be free of knots, loops, or snags. Release the control lines lying on the ground before take-off if they are snagged on the ground. When starting, no lines may lie under the parakite. Entangled lines can often not be solved and have fatal consequences!

#### FORWARD LAUNCH

It is very important to NOT hold the A-Risers in your hand while performing a forward launch. Follow the black elastic connecting your control handles with the riser, starting from your main riser connection loop. Slip into the loop and grab the control handle. Make sure the elastic is running above, not under, your arm. Hold your arms slightly sideways and as far backwards as possible, making sure the control handles are fully released.

Before launching check the wind direction and the airspace! Start running with the pull of your parakite only in the harness, and when your wing is above your head, check the inflated canopy on any collapsed wingtips or line tangles. You can open any collapsed cells by pumping the affected side. Don't make your final decision to accelerate or to takeoff until you are absolutely sure that the wing is properly and evenly inflated. Otherwise, stop the take-off procedure immediately! Keep some tension on control handles and run as fast as you can.

If you have a knot in the lines and can't stop the takeoff procedure and start to fly, do not fly fast! Even a tiny knot in the control lines or C-Lines can take out the Reflex and remove the stability of the FLARE LINE and even lead to a collapse without turbulence when going in a 'full speed' position! The knots might also affect your stall speed, so don't try landing somewhere sketchy either. The best is to fly down slowly with control handles pulled and choose a big safe landing spot.

Pull well below your carabiners until you feel a progressive increase in pulling force on your control handles. This way your FLARE LINE will produce the most amount of lift to take off.

When reaching your maximum running speed, increase the tension on the brakes until you lift off.



Make sure to check out our tutorials on youtube.

# FLARE

## LINE

#### **REVERSE LAUNCH**

Hold the A-Riser where the split to the B-Riser is located. This way the FLARE LINE inflates in a nice and smooth way. If the wind is strong enough, only hold your control handles and release them and pull with your hips. this way the FLARE LINE inflates perfectly.

If your parakite is overshooting, you have two options. The first one is to let it overshoot and don't stop it at all with your control handles. The reflex profile will stop it for you. The second option is to stop it rapidly with a quick and far pull on the control handles. If the control handles are pulled too slowly, the FLARE LINE may collapse.



DO NOT HESITATE TO STOP IT, OTHERWISE IT COULD COL-LAPSE. DEPENDING ON THE SIZE AND WEATHER CONDITIONS, THE TAKE-OFF DISTANCE CAN BE EXTREMELY LONG OR RE-QUIRE A HIGH TAKE-OFF SPEED. BE AWARE OF THE RESULTING RISKS AND CONSIDER YOUR CHOICE OF TAKE-OFF SITE.

#### TURNING

The FLARE LINE has a unique behavior during turns. For flat turns, fly at about the 'best glide' position and use weight shifting. Only release the outside control as much as needed.

For steep turns, use weight shifting and release the outside control handle (be prepared for a very steep turn and a high flying speed).



WHEN FLYING CLOSE TO THE STALL SPEED, ONLY RELEASE THE OUTSIDE CONTROL IN ORDER TO KEEP YOUR LINE FROM SPIN-NING! PULLING THE control LINES TOO FAR AND TOO FAST CAN CAUSE A STALL! YOU CAN RECOGNIZE AN IMPENDING NEGATIVE SPIN BY THE HIGH CONTROL LINE PRESSURE AND SLIGHT BACK-WARDS FOLDING OF THE WING TIP. IF THIS HAPPENS, RELEASE THE INSIDE CONTROL IMMEDIATELY.

#### ACTIVE FLYING

Active flying means flying in harmony with your parakite. That means instead of flying with the controls always in the same position, be aware of the slightest disturbances in the air to react accordingly, especially in turbulent conditions.

Never let go of the control handles, especially in turbulent conditions! Correct turbulences by using the control handles and by shifting your body weight accordingly. With a light tug on the controls you can constantly keep in contact with the canopy and feel its internal pressure. That way you can recognize and react early to a pressure drop and impending collapse.

Collapses, while flying in 'full speed' position, in general tend to be more sudden and require increased attention on the part of the pilot. As you gain experience, these reactions will become intuitive. However, maintaining an active flying style will greatly increase your margin of safety.

The neutral position for active flying is slightly above the best glide position at the left and right marks on the 'FLARE SYSTEM'. Examples:

> To avoid large changes in the angle of attack, release the controls when flying into strong updrafts and pull them when flying into downdrafts.

> When flying in turbulent air, if you feel a drop in pressure in parts of your parakite, pull the control handle briefly and progressively until the pressure becomes normal again. If you control the wing too quickly and too far, you risk stalling it!



NEVER FLY IN FULL SPEED POSITION WITHOUT APPLYING LIGHT PRESSURE ON THE CONTROL HANDLES IN TURBULENT AIR! NEVER LET GO OF THE CONTROL HANDLES!

#### LANDING

The FLARE LINE can flare for a very long distance in flat terrain. Make sure to choose a big landing space if you have no headwind.

We recommend doing the final approach slightly above the 'best glide' position; this way, you have enough flare left for a smooth flared landing.

#### PACKING

Conscientiously packing your parakite guarantees consistently high quality. First, remove all leaves, grass, sand, etc. and always ensure the parakite is dry and clean before you pack it. Then sort the lines and lay them on the parakite. Place your FLARE LINE on top of the opened LINECATCHER Bag. Gather all the fabric and close your LINECATCHER Bag with the rope.

A hint to increase the life of your parakite even more:

Don't pack your parakite too tightly. Treat the leading edge with care despite its robustness, and open up your wing if you store it for a more extended period.



Б

#### **6 DESCENT TECHNIQUES**

The FLARE LINE is certified in accordance with EN926-1. It has undergone and passed a shock and load test. The FLARE LINE does not have an engine with DGAC (Direction Generale de l'Aviacion Civile) certification. Check the local regulations to see whether you are authorized to fly the FLARE LINE. If so, you will find a few tips on the behavior of the FLARE LINE here. This manual does not claim to be an instruction manual. We expressly warn against flying maneuvers with the FLARE LINE.

We recommend the use of a rescue system approved for 60 m/s. This information can be found on the rescue equipment inspection sticker.

For all extreme maneuvers it is important:

- > Practise this first under supervision, at a great height above the water.
- > To ensure that the airspace below you is clear before entering each maneuver.
- > To maintain eye contact with your parakite throughout each maneuver..

#### SPIRAL DIVE

The FLARE LINE tends towards a stable spiral dive and has above-average sink rates. You can enter a spiral dive starting from close to 'full speed control setting' by carefully increasing the control pressure on the inside of a turn while shifting your weight in the same direction.

Do not pull the inside control too far, in order to not 'spin' and stall your FLARE LINE asymmetrically.

The spiral begins when the parakite banks sharply to the side and enters a sharp, steep turn. You can control the bank angle and descent rate by applying or releasing the inside control. If the outer control is held in the "full speed position", you descend faster and are exposed to less G-forces. You will lose height quickly due to the spiral dive. Consider the following:

 High sink rates and the related high G-forces lead to a high physical strain on the body that may be too much for inexperienced pilots!
Be aware of the risks and approach spiral dives slowly!

- > Tensing your stomach muscles during a spiral dive can be very helpful!
- > If you feel dizzy or faint, exit the spiral dive immediately!
- > Due to the extreme altitude loss in a spiral dive, make sure you always have enough safe reserve.
- > TTo avoid strong surging when exiting the spiral dive, slowly release the inside control while applying the outside control.
- > The control line pressure in a spiral dive is substantially higher than in normal flight!



TO EXIT A SPIRAL WITH A HIGH SINK RATE (> 14M/S), IT MAY BE NECESSARY TO CONTROL THE OUTSIDE HALF OF THE PARA-KITE AND/OR TO SHIFT YOUR WEIGHT TO THE OUTSIDE OF THE TURN. THE EXIT MAY REQUIRE SEVERAL COMPLETE ROTA-TIONS AND CAUSE A HIGH ALTITUDE LOSS. FOR THIS REASON, DON'T PERFORM THIS MANEUVER AT AN ALTITUDE OF FEWER THAN 200 METERS! BY THE TIME YOU REACH THIS ALTITUDE, THE MANEUVER SHOULD HAVE ALREADY BEEN COMPLETED!

#### **ROLLING DURING 'FULL SPEED POSITION'**

The most effective way of descending with your FLARE LINE without increased G-forces is to initiate an alternating rolling motion by shifting weight when in 'full speed' position with your controls. This will increase you sink rate from an anyway rather high sink rate when in 'full speed' position. 'Full Speed' position will give you a lot of sink, therefore coming down on a parakite is easier than with regular paragliders.

Be aware you cannot do Ears, Big Ears and B-stall with the parakite, as it would represent a very high risk, which is why we strongly advise AGAINST these manoeuvres!

We recommend flying circles or small wingovers (rolling) to lose altitude more quickly.





ZШ

#### **7 EXTREME FLIGHT MANEUVERS**

The FLARE LINE should only be flown by professional pilots with sufficient experience.

The FLARE LINE is capable of very high flying speeds and descends many times faster than conventional paragliders. The height above ground can be misjudged very quickly. In the event of a malfunction, it is important to first stabilise the LINE and control the direction of flight. With sufficient height and clear airspace, the malfunction can be rectified.

If in doubt, we always recommend throwing the rescue parachute!

#### ASYMMETRIC COLLAPSE

The inherent turn toward the collapsed side of the parakite can be minimized by controlling the open side. With large collapses, control the open side carefully to avoid stalling the wing. If the collapse doesn't open despite control and weight shifting on the open side, you can speed up the opening process by repeatedly pumping the control on the collapsed side.

#### SYMETRIC FRONTAL COLLAPSE

If a front collapse happens, there is a risk that the parakite will form into a horseshoe shape. To avoid this, pull the control handles quickly and forcefully. This is the fastest way to reopen your FLARE LINE.

#### CRAVAT / LINE OVER

In extremely turbulent air or due to pilot error, it can happen that part of the parakite gets caught in the lines. If you do not have the opportunity to fly safely away from the slope, do not hesitate to use the rescue system! If the pilot does not intervene, the glider can enter a stable spiral dive through a tie!

To clear the cravat, there are two possibilities:

- > Pumping the affected side until deflation of the wing occurs.
- > Fullstall.



SHOULD THESE MANEUVERS NOT SUCCEED, OR IF THE PILOT FEELING OVERWHELMED BY THE SITUATION, THE RESCUE PARACHUTE SHOULD BE DEPLOYED IMMEDIATELY!



WE RECOMMEND THE USE OF A RESCUE SYSTEM APPROVED FOR 60M/S.

#### PARACHUTAL STALL

Deep stall can occur after heavy use due to porous material (UV radiation) and in the rain (absorption of moisture). The parakite does not accelerate and gets a high rate of descent.

The FLARE FLARE LINE will recover from a parachutal stall by releasing the control to 'full speed' position immediately.

IF YOU APPLY THE CONTROL DURING A PARACHUTAL STALL, THE PARAKITE WILL IMMEDIATELY ENTER A FULL STALL. NEAR THE GROUND, A STABLE PARACHUTAL STALL SHOULD NOT BE EXITED DUE TO THE RESULTING OSCILLATIONS. INSTEAD, THE PILOT SHOULD SIT UP IN HIS HARNESS AND PREPARE FOR A PARACHUTE LANDING FALL.

#### **NEGATIVE SPIN**

A parakite enters a negative spin when one side of the wing is stalled. The canopy rotates around the vertical axis with the center of rotation located within the wingspan. The inside wing flies backwards.

There are two causes for the negative spin:

- > One control is pulled too far and too hard (e.g. when entering a spiral dive)
- > One control is pulled too hard when flying slowly.

If an accidental negative spin is exited immediately, the FLARE LINE will usually resume flight without much altitude loss. Just release the control line pulled too far until the airflow is restored to the inside wing. After a long negative spin, the canopy may surge forward on one side. This could result in an impulsive collapse.

#### WINGOVERS

Alternating left and right turns as the bank angle is gradually increased. If wingovers are flown high with a large bank angle, the outside wing tip may loose pressure and start to feel light. In this case, don't increase the bank angle any more as the tip could collapse impulsively.



NEGATIVE SPINS AND WINGOVERS OVER 90° ARE FORBIDDEN ACROBATIC MANEUVERS ARE NOT ALLOWED TO BE FLOWN UNDER NORMAL CONDITIONS IN GERMANY. THE WRONG EXIT TECHNIQUE OR PILOT OVERREACTION CAN HAVE DANGEROUS CONSEQUENCES REGARDLESS THE parakite TYPE OR PARAKITE!

#### FULLSTALL

A full stall is initiated by controlling below the "minimum speed position". It is very important to initiate the full stall in a rather slow manner to avoid having the wing fall too far behind the pilot.



DUE TO THE REFLEX CONSTRUCTION OF THE FLARE LINE, IT IS VERY IMPORTANT TO STOP A SURGE FORWARD WITH A QUICK AND DEEP PULL ON THE CONTROL HANDLES, RATHER THAN A GENTLE PULL. BY TRYING TO STOP WITH A GENTLE PULL, YOU MOST LIKELY EVEN ACCELERATE THE SURGE AND A FRONTAL COLLAPSE IS INEVITABLE.

#### 8 MATERIALS

The FLARE LINE is manufactured from the highest quality materials. FLARE has selected the best possible combination of materials with regard to resilience, performance and longevity. We are aware that the durability of the glider is a deciding factor in the pilot's satisfaction.

#### WINGS AND RIBS

Upper sail: Lower sail: Ribs: Dominico 30DMF, 204444PS Dominico 204444PS Dominico 204444FM

#### LINES

We have chosen kevlar due to its length stability.A, B, C Main lines:EDELRID 8001- 340 / 230 / 130A, B, C Middle lines:EDELRID 8001- 190 / 130A, B, C Top lines:EDELRID 8001- 90 / 70 / 50Control linesLiros PPSLS125 / DSL70

#### THE FLARE SYSTEM

The FLARE System is manufactured from 3,7mm Dyneema Taurus line by EDELRID. The Pulleys are Ronstan orbit 20mm, combining great breaking strength and a light weight.

#### **9 RECOMMENDATION TABLES**

#### WINGLOADINGS ON THE LINE AND EXPERIENCE NEEDED:

SIZE M <sup>2</sup>	WING LOADING OF THE LINE AND THE REQUIRED FLYING EXPERIENCE														
15			4,0	4,3	4,7	5,0	5,3	5,7	6,0	6,3	6,7	7,0	7,3	7,7	8,0
13		4,2	4,6	5,0	5,4	5,8	6,2	6,5	6,9	7,3	7,7	8,1	8,5	8,8	9,2
11	4,5	5,0	5,5	5,9	6,4	6,8	7,3	7,7	8,2	8,6	9,1	9,5	10,0		
10	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5	10,0				
9	5,6	6,1	6,7	7,2	7,8	8,3	8,9	9,4	10,0						
8	6,3	6,9	7,5	8,1	8,8	9,4	10,0								
WEIGHT*	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120

\*TOTAL WEIGHT BEFORE TAKEOFF: PILOT'S OWN WEIGHT, PARAKITE, HARNESS AND PROTECTIVE GEA

Additionally please make sure to watch the 'Sizes' video in our 'Academy' section, which is dedicated to support your decision on what size to choose. Our Recommended Take-Off-Weight Chart shows you how dynamically the wing reacts and which skill level it requires based on your take-off weight (at 0 wind speed)

#### SKILL LEVEL:

WINGLOAD 4 - 5: Experience in flying miniwings is highly recomended

WINGLOAD 5 - 7: Experience in speedflying is highly recomended

WINGLOAD 7 - 8: Experience in extreme speedflying is highly recomended (capability of flying wings ≤ 9m<sup>2</sup>)

WINGLOAD >8: Experience in extreme speedflying is highly recomended (capability of flying wings  $\leq 7m^2$ )

#### We do not recommend, to footlaunch the LINE with a wingload of 10 or higher.

How to calculate the wingloading yourself:

Divide your take-off weight by the designed area of your parakite. Calculate the wingloading of your current parakite to compare to the skill chart. Choose the LINE size that best suits your skills.

The LINE has a large speed range. Our parakites can be compared to paragliders/wings that are two square meters smaller. For example, a 13 m<sup>2</sup> LINE has a top speed similar to a 9 m<sup>2</sup> speedflyer.

ZШ



ZШ

#### **10 MAINTENANCE**

With proper care, your FLARE product should remain airworthy for many years. A well-treated parakite can fly twice as many hours as a parakite. Always remember: your life depends on your parakite!

#### STORAGE

Ideal is a dry, dark place with a constant temperature. Moisture is an old enemy of the durability of all parakites. For this reason, always dry your equipment before you store it, preferably in a heated and well ventilated room, so that moisture can evaporate.

#### CLEANING

Any rubbing or abrasion can cause your parakite to deteriorate quickly. The PU coated canopy materials are dirt-repellent but in case of dirt accumulation can be cleaned easily. If you still think you need to clean your parakite (e.g. of cow manure), then use a soft, damp towel or a sponge WITHOUT soap, solvent or detergent. Let your parakite dry thoroughly before storing it.

#### REPAIR

The manufacturer or an authorized FLARE service center should only do repairs. Exceptions include the repair of minor cuts (up to about 5cm that don't affect a seam) that can be patched with FLARE sail tape and the swapping out of lines. Replacement lines can be ordered directly via info@go-flare.com

#### LINE REPAIRS

The main lines of the FLARE LINE consist of a Dyneema- or Technora core and a polyester sheath. Avoid heavy loads on individual lines, as excessive stretching may be irreversible. Repeating kinking of lines at the same spot reduces their strength.

Visible line damage should be checked and possibly repaired, even if only to the sheath. New lines can be ordered from the manufacturer or an authorized FLARE partner. They will help you to replace defective lines. Before replacing a line, the correct length must be verified by comparing it with the corresponding line on the other side of the wing. After the replacement and before your next flight, perform a line check by kiting up the parakite on the ground.

- > Avoid leaving your parakite unused in the sun or lying outside in bad weather.
- > Avoid exposing your parakite to abrasion by dragging it over sticks and stones.
- > Always fold your parakite carefully and loosely and avoid sharp creases and extreme compression of the material.
- Should the material come in contact with salt water, rinse it immediately and carefully with fresh water and make sure that it has enough time to dry in a shady location.
- If you land in a tree, never pull hard on the lines or material to free your parakite. Rather do so carefully and with patience. Once you have removed all leaves and branches from your parakite, inspect the line lengths and symmetry before your next flight.
- > When laying out your parakite, make sure that neither material nor lines are dirty as particles caught in the fibers can shorten the lines and damage the material.
- If lines get caught on the ground, they can get stretched or torn during launching. For this reason, make sure that all lines are free and avoid stepping on them.
- Make sure that no snow, sand or stones find their way into the canopy because weight on the trailing edge of the parakite can brake or even stall it. Should this happen anyway, lift up the parakite by the C-lines so that the air inlets are pointing downwards and the canopy can empty itself.
- > When launching in strong wind, part of the parakite may hit the ground hard. This can lead to tears in the ribs or damage to the seams. For this reason, inspect your parakite on a regular basis for this type of damage.
- > After landing, don't let the parakite fall to the ground on its nose as this can damage the material on the leading edge.

#### 11 DISPOSAL

When choosing materials, FLARE places particular value on environmental compatibility and the highest quality control. Should your parakite someday no longer be flyable, remove all metal parts such as shackles, pulleys, etc. All remaining parts such as lines, material and risers can be turned in at a recycling center. The metallic parts can be turned in at a metal recycling center. The best solution is to send your retired FLARE parakite directly to us. We will take care of the recycling.

#### **12 MAINTENANCE CHECK**

At FLARE, the safety of our customers is our highest priority. To maintain the flying characteristics of your FLARE LINE, it has to undergo a maintenance check after 12 months, 30 flights or after 100 flight hours (whichever occurs first). According to these regulations the Two-Year-Check must be carried out by the manufacturer.

The check must be officially confirmed with a stamp. If this date is missed, the FLARE LINE loses its guarantee. Airworthiness is, therefore, not guaranteed.



IF THE PARAKITE IS SUBJECTED TO ABOVE AVERAGE WEAR AND TEAR (EXTREME FLIGHT MANEUVERS, FORBIDDEN ACROBAT FLIGHT MANEUVERS) OR IS USED FREQUENTLY IN SAND OR SALTY AIR, IT SHOULD BE INSPECTED SOONER OR SHOULD UNDERGO AN ADDITIONAL INSPECTION!

Changes to the parakite:

Your FLARE LINE is manufactured within the regulated parameters of tolerance. These parameters are very narrow and must not be altered under any circumstance. Only this way can the optimum balance between performance, handling, and safety be guaranteed!



UNAUTHORIZED CHANGES INVALIDATE THE TYPE APPROVAL AND ALL LIABILITY CLAIMS AGAINST THE MANUFACTURER ARE INVALIDATED.

#### **13 HOMOLOGATION**

The FLARE LINE is certified according to EN926-1.

The FLARE LINE underwent 'only' a shock- and load test. Check your local regulations, whether it is legal or not to use the FLARE LINE in your country.

#### **14 CLOSING WORDS**

The FLARE LINE will provide you plenty of joy over many years if you treat and care for it properly. Respecting the demands and dangers of flaring is essential for successful and beautiful flights. Make sure to watch all FLARE Tutorials at go-flare.com and respect your limits. The question is not how stable the FLARE LINE is; the question is how stable you can personally make it by active piloting.

### WE WISH YOU MUCH FUN WITH YOUR FLARE LINE AND HAPPY FLARING!

Your FLARE Team



Ц

## LINE

# FLARE

БN

NOTES

NOTES



SKYWALK GMBH&CO. KG WINDECKSTR. 4 83250 MARQUARTSTEIN +49 (0) 8641/69 48 0 LET`S FLARE AND MOVE #BEYOND\_GRAVITY

