TRIPLE SEVEN

M-LIGHT

introduced

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Ver 1.0

Introduction

Welcome

We thank you for joining the Triple Seven team through your purchase of this Triple Seven wing. If this is your first Triple Seven product, you may be interested in learning more about the people behind it and the thoughts that go into our wings.
Triple Seven d.o.o. was founded in 2021 by brothers Urban and Aljaz Valic. Both veterans of the international paragliding competition scene learned the ropes by working with some of the foremost minds in the sport. They finally felt free to let their creativity and innovative mindsets come to the forefront with the new brand.

Today, that spirit lives on in everything Triple Seven makes. Our creativity flows more freely when we think a problem through from the bottom up, and our designs reflect this approach. We make paragliders for everyone, but being performance-oriented ourselves, we cannot help but ensure that ALL our wings are at the very top of the performance ladder in their respective classes.

Both Aljaz and Urban enjoy a nimble wing, easy to throw around, easy to play with, and their designs fly accordingly – the hallmark playfulness is an intrinsic part of every Triple Seven wing ever sold. This makes our wings stand out in a crowd, and if your flying mindset is anything like ours, we KNOW you will love every moment of it!

This document contains complete product information and instructions to familiarize you with the main characteristics of your new glider.

You must take the time to read this manual carefully before the first flight, as a thorough knowledge of your equipment enables you to fly safely and maximize your full potential. Please pass this manual on if you borrow or give your glider to another pilot.

If any use of Triple Seven equipment remains unclear after reading this manual, please get in touch with your local Triple Seven dealer. This product manual is subject to changes without prior notice.

Please check www.777gliders.com for the latest information regarding our products.

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Before flight

Elements, components

The M-light scope of delivery is a rucksack, inner bag, compression strap, and Triple Seven T-shirt.

Before you rush to the first take-off, we recommend you take your time to unpack and test your equipment on a training slope. This way, you will have time and will not be distracted or rushed to prepare your gear, and you will be able to properly do your first pre-flight check.
The place should be flat, free of obstacles, and with light wind. This will enable you to nicely inflate the wing and familiarize yourself with it during ground handling.

Harness

The harness dimensions used during the certification tests was: hangpoint height 55 cm, chest-strap width 44 cm.

Pilot skills required for safe operation

To fly the M-light wing, one needs to be familiar with the basic operation of the wing. The M-light is certified in the A class, so the pilots skills need to be on par with the demands of the A class wing.

First Flight

Now that you have already familiarized yourself with your new glider while ground handling on a training slope, you are ready for your first flight. For the first flight, it is recommended that you choose a familiar flying area and fly your new glider in calm conditions.

Pre-flight check equipment

Before every flight, you need to do a pre-flight check and the inspection of other equipment. Learn to do this, as it takes no extra time. This procedure may vary depending on the instructor, pilot, or equipment settings. Some pilots have their wings always connected to the harness. However, you should have a consistent method of checking and preparing your equipment and doing the final pre-flight check.

After the arrival on take-off, assess the suitability of flying conditions. While walking around the canopy, preparing and spreading out the wing, you should, at the same time, inspect the canopy.
After you check the lines and connect the risers to the harness, grab the lines and slide them through your fingers as you walk towards the canopy. This way, you double-check that the lines are not tangled, stuck, or damaged.

Final pre-flight check
Check the risers for a twist and that the carabiners are correctly closed.
Check the lines. The A riser lines should be on top, and all lines untangled. Check that none of the lines are lying over or below the canopy.
Check the canopy. The glider should be spread out in an arch, and all cells open.
Check the wind, take-off and airspace. The wind should be favourable for take-off and the pilot's level of expertise. Airspace should be cleared, together with the take-off area.

Inflation, control, take-off

The M-light has an easy take-off behavior. The best way to achieve optimum inflation is to use the inner A only. This way, you will lift the center first, and the tips will follow the leading edge center.



In flight

Asymmetric deflations

Strong turbulence may cause the wing to collapse asymmetrically. Before this occurs the brake lines and the feeling of the harness will transmit a loss of pressure to the pilot. This feedback is used in active piloting to prevent a collapse. If the collapse does occur, the M-light will easily re-inflate without the pilot's reaction.

If assymetric deflation happens, actively recover the asymmetric collapse by weight shifting and applying appropriate brake input on the side that is still flying. Be careful not to over-brake your wing's flying side. This is enough to maintain your course and give the glider enough time to recover the collapsed side by itself. To actively reopen the collapsed side after course stabilization, pull the brake line on the collapsed side firmly and release it. You can do this several times with a smooth pumping motion. After the recovery, release the brake lines for your glider to regain its trim speed. You must be aware of the fact that asymmetric collapses are much more radical when flying accelerated. This is due to the difference in weight and the inertia of the canopy and the pilot hanging below.

Symmetric deflations

Symmetric or frontal deflations normally reopen immediately by themselves without pilot's input. The glider will then regain its airspeed accompanied by a small surge forwards. To actively control this event, apply both brakes slightly when the collapse occurs and then instantly release the brakes to let the glider fly. Be prepared to compensate for the glider's slight surge forward while returning to normal flying.

Wing tangle, cravat

A cravat is very unlikely to happen with the M-light, but it may occur after a severe deflation or in a cascading situation, when the wing tip gets caught in the glider's lines. A pilot should be familiar with the procedure of handling this situation with any glider. Familiarize yourself with the stabilizer's main line ("stabilo" line) already on the ground. If a cravat occurs, the first thing to do is to try to keep the glider flying on a straight course. Do this by weight shifting and counter braking the untangled side. After that, grab the stabilizer's main line on the tangled side and pull it down until it becomes tight again. At this point the cravat normally releases itself.
Possible solutions of the cravat situations (consult your SIV instructor):

- Pulling the wing tip "stabilo" line
- If you are in a situation where you have a cravat and you are low in rotation or even with twisted risers, then the only solution is the reserve parachute.

Negative spin

In normal flight you are far from negative spin. But, certain circumstances may lead to it. Should this occur, just release the brake lines progressively and let the wing regain its flying speed. Be prepared for the glider to surge forward, compensating the surge with brake input if necessary.

Deep stall

Generally when in deep stall, the wing has no forward motion and at the same time high sink speed. When in deep stall the wing is almost fully inflated. With the M-light it is very unlikely to get into this situation unintentionally. This could possibly happen if you are flying at a very low speed in turbulent conditions. If you apply the brakes a little bit too much you enter the full stall. If you release the brakes just a little bit too much the wing returns to normal flight.

Big ears

This is a safe method to moderately loose altitude while still maintaining forward speed. Pull the outer A lines (the A2 risers in the drawing) on both sides. As long as you keep the A2 risers pulled, the wing tips stay folded and the sink speed increases.

To regain normal flight, release the A2 risers, and if necessary apply the brakes with short impulse movements. Release big ears at least 100 meters above the ground. While using big ears, the wing speed decreases, which is why we also recommend using the speed systen in combination with big ears to maintain enough horizontal speed and to also additionally increase vertical speed. Be careful not to pull the brakes while making the ears! Steering is done by weight shift only.

B-stall

While in the B-stall the glider has no horizontal speed and the sink rate increases to about -8m/s. To enter the B-stall reach for the B risers just below the maillons and pull both B line risers symmetrically for about 20 cm. To exit the manoeuvre, simultaneously release both risers quickly. On exit the M-light gently dives without deep stall tendencies.

Spiral dive

We may enter the spiral dive when applying the brake on one side for an extended period. There is a possibility of losing consciousness while in the spiral dive. Never make a spiral with more than 16-18m/s sinking speed. Going over this limit, you enter a nose-down spiral. This is already out of the scope of this manual and is, therefore, forbidden. In fast spirals, it may be necessary to apply the outer brake to begin exiting the spiral dive.

Winch launch

The M-light is easy to launch using a winch. In order to practice this launching technique, special training is needed, and you have to be aware of the procedures and dangers, which are specific for winching. We do not recommend using any special towing device which accelerates the glider during the winch launch.

Aerobatics

The M-light is not designed for aerobatic flying. Therefore, these may not be performed on this glider. In addition to this, any extreme maneuvers place unnecessary stress on the glider and shorten its lifespan.

Primary controls failure

If, for any reason, you cannot use the brake lines, you have to pilot the wing to the landing-place by utilizing a weight shift. Weight shift should be enough to land the glider safely. You can also use the C risers to control and steer the wing. Be careful not to over-handle the glider by using the C riser technique when steering. By pulling the C risers too strong, you can cause a stall or a negative spin.

SIV

The M-light is capable of teaching you how to perform maneuvers that are normally part of SIV training. However, pilots need to understand that any possible damage that may occur during the SIV course is not covered under the Triple Seven warranty.

Measurement and ranges (according to Table 8)				Classification
Symmetric control pressure	Symmetric control travel (cm)			—
	max. weight in flight up to 80 kg	max. weight in flight 80 kg to 100 kg	max. weight in flight greater than 100 kg	—
Increasing	Greater than 55	Greater than 60	Greater than 65	A
Increasing	40 to 55	45 to 60	50 to 65	C
Increasing	35 to 40	35 to 45	35 cm to 50	D
Increasing	Less than 35	Less than 35	Less than 35	F
Approximately constant	Greater than 55	Greater than 60	Greater than 65	B
Approximately constant	40 to 55	45 to 60	50 to 65	C
Approximately constant	35 to 40	35 to 45	35 to 50	F
Approximately constant	Less than 35	Less than 35	Less than 35	F
Decreasing	any	any	any	F

Maintenance

General advice

Careful maintenance of your glider and the following simple guidelines will ensure a much longer airworthiness and performance of your wing:

- Pack your glider after you land and do not unnecessarily expose it to UV radiation by leaving it on the landing site unpacked. The sun UV radiation degrades the cloth and lines material.
- Fold your glider like recommended under the section of packing instructions.
- If the glider is damp or wet when you pack it, partially unfold it at home to allow it to dry. Do not dry it in direct sunlight.
- Avoid exposing the glider to violent shocks, such as the leading edge hitting the ground.
- Avoid dragging the glider on the ground or through rocky terrain as you might damage the lines or canopy.
- Avoid stepping on the lines or canopy, especially when they are lying on a hard surface.
- Avoid exposing the glider to salt water, as it damages the lines and the canopy material (wash with fresh water).
- Avoid bending your lines, especially in a small radius.
- Avoid opening your glider in strong winds without first untangling the lines.
- In general, avoid exposing your glider to very hot or humid environments, UV radiation or chemicals.

Packing instructions

It is important to correctly pack your glider as this prolongs its lifespan. We recommend that you fold the glider like a harmonica, neatly aligning the profiles with the leading edge reinforcements side by side. The wing should then be folded in three parts or two folds. The wing should be packed as loosely as possible. While packing be careful not to trap any grasshoppers inside your canopy as they will tear the canopy cloth. This technique will make your glider last longer and ensure its best performance.

Storage

Correctly packed and dried out, store your glider in a dry place at room temperature. The glider should not be stored damp, wet, sandy, salty or with objects inside the cells of the glider. Keep your equipment away from any chemicals.

Cleaning

If necessary always clean your glider with fresh water and a cloth only, without using any cleaning chemicals. This includes also the lines and canopy. More importantly, always remove any stones or sand from the canopy as they will gradually damage the material and reduce the glider's lifespan.

Repair

To repair small damages (less than 5cm) on the canopy cloth, you can use the rip stop tape. Greater damages, including stitches and lines must be repaired by a specialized repair shop. Damaged lines should be replaced by a Triple Seven dealer. When replacing a line it should always be compared with the counterpart for adjusting the appropriate length. After the line was repaired, the wing should be inflated before flying, to ensure that everything was done correctly. Major repairs, such as replacing panels, should only be carried out by a Triple Seven distributor or Triple Seven. If you are unsure about the damage or in any doubt please contact Triple Seven.

Checks and control

To ensure the wing's airworthiness the M-light has to be periodically serviced and checked to guarantee that the glider continues to fulfil the EN certification results and to extend your glider's lifespan. We recommend a line check and trim inspection every 100hours or 300 take offs or 24 months depending what happens first. This inspection includes checking the suspension lines, line geometry, riser geometry and the permeability of the canopy material. A certified inspector can then define the check interval depending on the glider's condition. Please note that the condition of the glider can vary considerably depending on the type of usage and environment. Salty coastal air or dunes will considerably affect your wing's material. For more information please visit our website.

To obtain the dimensions and materials needed for the check of the wing, please visit the Triple Seven web page.

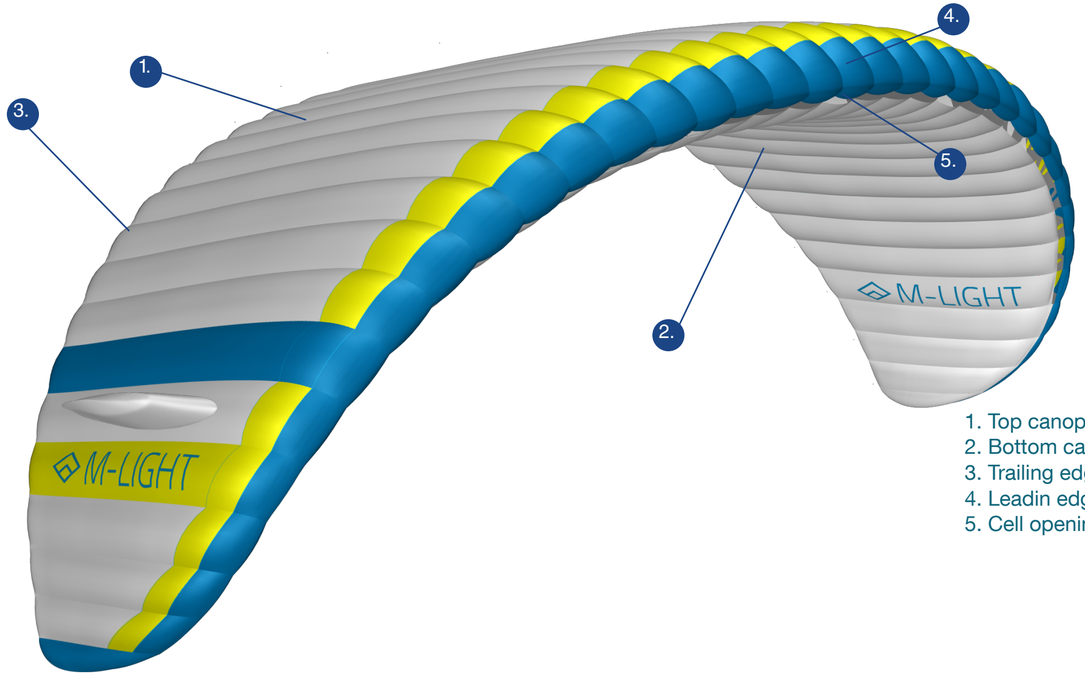
Spare parts

To obtain the spare parts, you can use info@777gliders.com
To obtain the spare lines you can do so via web page at
https://777gliders.com/ordering-spare-lines/

Drawings



1. Middle lines
2. Risers
3. Main lines
4. Top lines
5. Canopy



1. Top canopy
2. Bottom canopy
3. Trailing edge
4. Leadin edge
5. Cell opening

Technical data

		M-light XS	M-light S	M-light MS	M-light ML	
	Cell number	36	36	36	36	
Flat	Area (m2)	21.5	24.4	26.8	28.8	
	Span (m)	10	10.7	11.2	11.6	
	Aspect ratio	4.7	4.7	4.7	4.7	
Projected	Area (m2)	18.2	20.6	22.7	24.4	
	Span (m)	7.8	8.3	8.7	9.0	
Projected	Aspect ratio	3.3	3.3	3.3	3.3	
		Riser lengths (difference not more than ±5 mm from the lengths laid down in the				
Risers		A	A'	B	C	
M-light	Lenght mm	530	530	530	530	Standard
	Lenght mm	320	320	437	500	Accelerated
						Speed system distance 180 mm
Trimmers	NO					
Speed system	Yes					
In flight Weight		M-light XS	M-light S	M-light MS	M-light ML	
	Minimum kg	60	70	80	90	
	Maximum kg	75	85	95	105	
Extended weight range		90	95	105	115	
Certification		A	A	A	A	
Certification in extended weight range		A	A	A	A	

M-light	All sizes
CANOPY	FABRIC CODE
Leading edge	Porcher Skytex 38
Upper surface	Porcher Skytex 27 DoubleCoated
Bottom surface	Porcher Skytex 27 DoubleCoated
Profiles	Skytex Porcher 27 hard
SUSPENSION LINES	FABRIC CODE
Upper cascades	A-8000
Middle1 cascades	A-8000
Main	PPSLS, TSL
Brake upper	DSL
Brake middle 1	TSL
Brake middle 2	TSL
Brake main	DSL
RISERS	FABRIC CODE
Lightweight	7 mm Kevlar-reinforced Nylon

Riser



1. Maillon Rapide
2. A riser
3. A' riser
4. B riser
5. C risers
6. Speed pulleys

Safety and responsibility

Paragliding is a dangerous and high risk activity, where safety depends on the person practicing it. By purchasing and using this equipment you declare that you are a certified paragliding pilot, and you accept all risks involved in paragliding activities, including serious injury and death. Improper use or misuse of paragliding equipment considerably increases the risks.

The designer, manufacturer, distributor, wholesaler and retailer cannot and will not guarantee your safety when using this equipment, nor accept responsibility for any damage, injury or death as a result of the use of this equipment. This equipment should only be used by qualified and competent pilots. You must not use this equipment if you are not trained.

Guarantee

Triple Seven WARRANTY:

All Triple Seven products are fully warranted for 24 months, against material defects that are not the result of normal wear or accidental damage.

Spare parts
To obtain the spare parts, you can use info@777gliders.com To obtain the spare lines you can do so via web page at https://777gliders.com/ordering-spare-lines/

Warranty online reference:
www.777gliders.com/warranty

Glider disposal
Our sport takes place in the natural environment, and we should do everything to preserve our environment. A glider is basically made of nylon, synthetic fibres and metal. At the end of your paraglider's life, please remove all metal parts and put the different materials in an appropriate waste/recycling plant.

Registration information

To fully use all Triple Seven maintenance and warranty services you need to register your glider on our website. Wanting to provide good product support, we invite you to do so, even if you bought your glider second-hand.

Triple Seven Warranty & Product registration:
http://www.777gliders.com/tripleseven/support

Get involved

As a new Triple Seven pilot we invite you to contact us in case of any technical or practical issues regarding equipment or techniques. We also invite you to send us your flying photos, videos or even postcards. We would like to hear from you and your exciting adventures with your new glider! Finally, join our Facebook community and share the passion. Have fun!

Contact

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Online resources

For complete help, the latest news, product information and support go to:

Official website:
www.777gliders.com

Facebook:
www.facebook.com/TripleSevenParagliders
Instagram
www.instagram.com/triplesevengliders

Newsletter register:
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