



MAC PARA TECHNOLOGY LTD.
P. O. Box 26
1. máje 823, C6
756 61 Rožnov pod Radhoštěm
Czech Republic

Tel.: +420 571 842 235
Tel./fax: +420 571 842 332
e-mail: mailbox@macpara.cz
www.macpara.com



*FOLDING INSTRUCTIONS AND MANUAL
FOR
EMERGENCY SYSTEM*

**Owner's manual
and folding instructions
for emergency systems
Aegis 33, Aegis 38, Aegis 63, SE 43**

Introduction

Even the best pilots, flying the best new paragliders or hang-gliders, can sometimes, due to violent atmospheric conditions, collisions, etc., find themselves with their glider damaged, disabled, or tangled, and irremediably out of control. In such cases, reliable emergency systems with fast opening parachutes can make difference between a simple scare and fatal accident.

MAC is happy and proud that its emergency systems, developed and perfected over a number of years, have saved the lives of many pilots. This handbook describes four models of MAC emergency systems: for attachment to paraglider harness (one for lighter, two for heavier and one for tandem pilots).

MAINTENANCE

Your MAC EMERGENCY SYSTEM has been designed for low-speed deployment. Do not, under any circumstances use the EMERGENCY SYSTEM for free-fall parachuting.

Nylon is very susceptible to UVA rays, therefore it is very important to keep the canopy out of sunlight. The container will protect the canopy from UVA rays. When storing the parachute it should be kept in a cool dry place, since mildew grows in nylon.

To clean the MAC EMERGENCY SYSTEM all parts should be soaked in a solution of lukewarm water and mild soap, then allowed to drip dry (out of sunlight).

If needed, repairs should be referred back to MAC PARATECHNOLOGY, Ltd.

PERIODIC REPACKING

Even though the Emergency System should remain in good conditions and open properly over a number of years, we strongly recommend that the parachute be repacked by a certified parachute rigger or other authorized person once every 6 – 9 months.

Packing by an unqualified person is undertaken at pilot's own risk.

IDENTIFICATION

On the canopy where the lines join the skirt, there is an MAC stamp with the serial identification number and the size of the parachute. The manufacturer's identification is also sewn onto the skirt. In any query to MAC, please refer to this identification number.

ATTACHMENT PROCEDURE

To attach the parachute to your harness, please consult your dealer or other authorized person. Many different types of harness exist on the market and every harness requires a custom fit of the emergency parachute. Make sure that the parachute is installed on the harness in a way that will prevent accidental opening, but will insure a safe fast deployment in case of emergency.

GENERAL DESCRIPTION

This parachute has a pulled down apex (P.D.A). In addition to the lines attached to the perimeter (skirt) of the canopy, there is an extra central line, which pulls the center of the canopy down, level with the skirt. This configuration provides the fastest possible opening of the parachute and greatest efficiency.

For maximum safety, please study this manual thoroughly before flying with the MAC EMERGENCY SYSTEM. Familiarity with all its features will add your confidence and peace of mind in the air.

DISCLAIMER OF LIABILITY AND WARRANTY

Taking into consideration the risk inherent in Paragliding and Hang-gliding, it must be expressly understood that the Manufacturer and the Seller do not assume any responsibility for accidents, losses and direct or indirect damages following the use or misuse of the product.

It must be clearly understood that this is an emergency system designed to be used as a last chance to reduce pilot's speed of descent in the event of emergency during flight. It must obviously be used and controlled by pilots who fully understand the abilities and the limits both of the glider and of the emergency parachute.

Emergency systems must be understood to provide the best chance of rescue, not an absolute guarantee of safety. Operating the emergency system without a real necessity may cause serious problems especially be at low height. Furthermore, the device is delicate and can easily be damaged by accidents, alterations, modifications, mistakes, shocks, improper use or insufficient maintenance for which the Manufacturer and the Seller can not be considered responsible.

The liability of the Seller is limited to replacement of parts found upon examination by the manufacturer to be defective in workmanship or material within 90 days after purchase and which have not been caused by accidents, tampering, alterations or misuse.

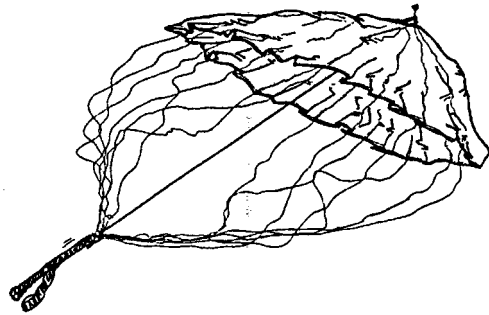
TECHNICAL DATA

	Aegis 33	Aegis 38	SE 43	Aegis 63
Canopy area (m ²)	33	38	43	63
Number of lines	24	24	16	20
Weight of system (kg)	2,3	2,5	3	4,6
Total hook-in weight (kg)	105	125	140	230

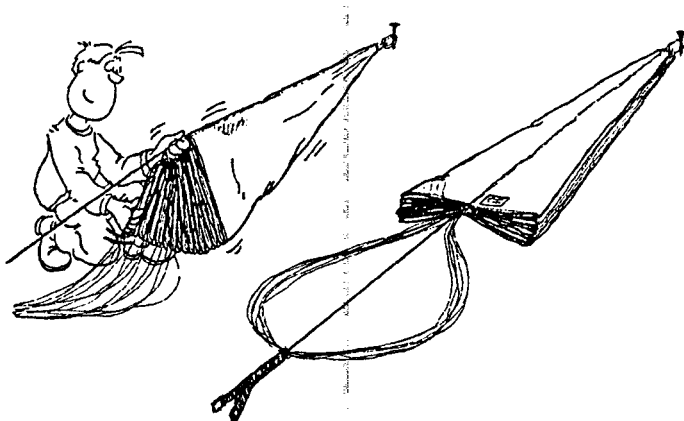
ARRANGEMENT AND INSPECTION OF THE CANOPY AND LINES

This chapter applies to all the 18, 20 and 22 – gore parachutes.

1) Lay the extended parachute on the table as shown in the following figure. Line No. 1 should be on the top, in the middle, to the right of the center, as shown. The central line, which joins the top of the parachute to the bridle, is easily identified, being much thicker than other lines.

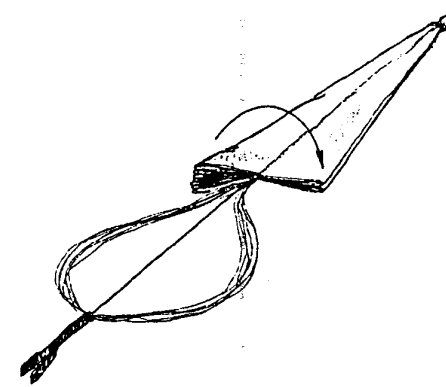


2) Passing a length of the line or strap under all the top lines, including the central line, attach the top to the anchor point.



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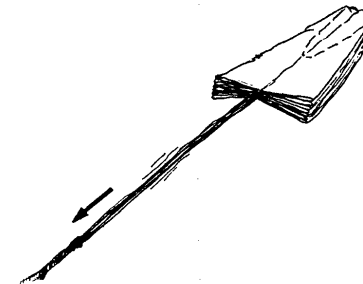
3) Bring the flipped gores back one by one, inspecting them carefully on both sides for wear, damage, stains, deterioration, mildew, etc.



4) Repeat for the left-hand group of gores.

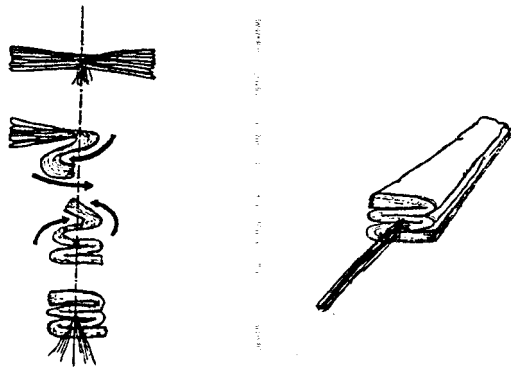
5) Inspect the lines for signs of wear or damage.

6) Gently insert by hand the top of the canopy downwards between the gores as far as it will go. Now begin to pull down the central line, a little at a time. After the line has straightened out between the gores, continue. This will gradually pull the top inwards and down, inside and centrally between the gores. After each pull, check whether the top is traveling centrally between the gores, and whether the upper edges of the gores are folding inwards evenly. Stop when the attachment point of the top line is still inside.



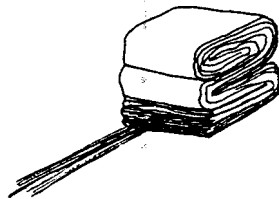
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7) Fold the triangular side section of the gores as shown.



IT IS OF UTMOST IMPORTANCE THAT THE LINES SHOULD RUN STRAIGHT AND PARALLEL TO ONE ANOTHER ALL THE WAY FROM THE PARACHUTE SKIRT TO THE BRIDLE, WITHOUT ANY CROSSING OR TWISTING, AND THAT THE BRIDLE LIES SO THAT THEY JOIN ITS SIDE. THE BRIDLE SHOULD NOT BE TURNED OR TWISTED IN THE SUBSEQUENT STAGES OF FOLDING.

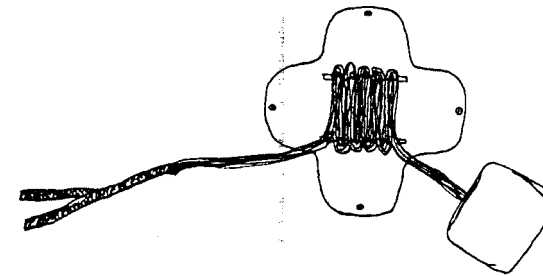
8) Begin folding the canopy, starting at the skirt, to obtain a package as shown in the following figure. All the folds are of the zigzag S-type except the last one (on top), where the last section is tucked under the top layer.



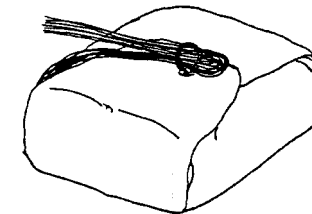
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The size of this rectangular canopy package, should conform to the inside central part of the appropriate internal container.

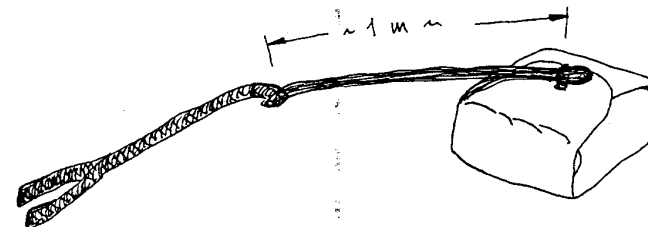
9) Begin to fold the lines into the internal container. Insert the loops of the lines into the latex-rubber loops. All the folds are of the zigzag S-type. Any twist or tangle in the lines can be undone by manipulating the bridle in the correct direction.



10) Bring the flaps of the inner container over the folded parachute and lines. Insert the loop of lines into the rubber loop of inner container as shown.

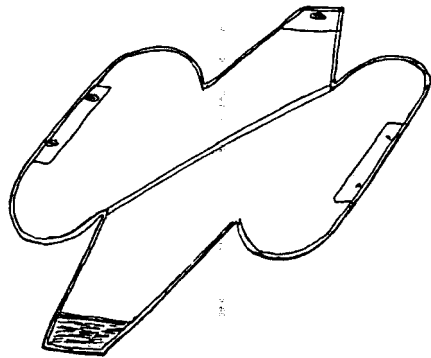


11) The top loop of the bridle, where the lines joint it, should now be 1m from the package. The inner container is now assembled and ready for packing into the outer container.



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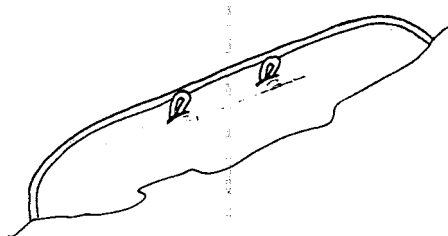
I.) Lay the outer container on the table next to inner container as shown.



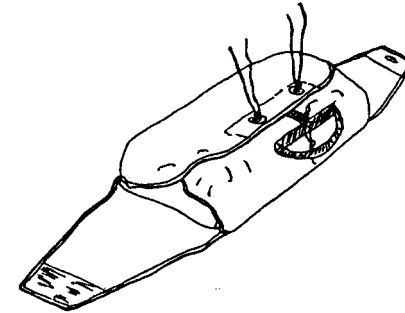
II.) Fold the protruding lines and the bridle on top of the inner container. Turn the inner container over and lay it on top of the outer container so that the bridle loop now protrudes from under the inner container and out of the upper right-hand corner of the outer container, and the double emergency handle lies centrally and evenly on the top of the inner container.



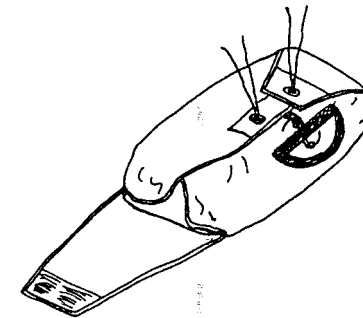
III.) On the outer container there are two short loops sewn onto the right-hand flap.



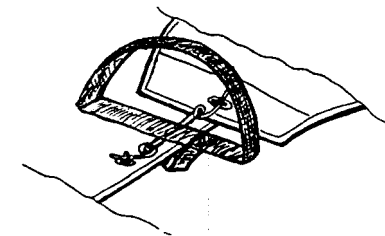
IV.) Fold the right-hand flap over the inner container. Fold the opposite flap over the inner container, leaving the handle on top. Thread the loops through the corresponding eyelets of the second flap as shown.



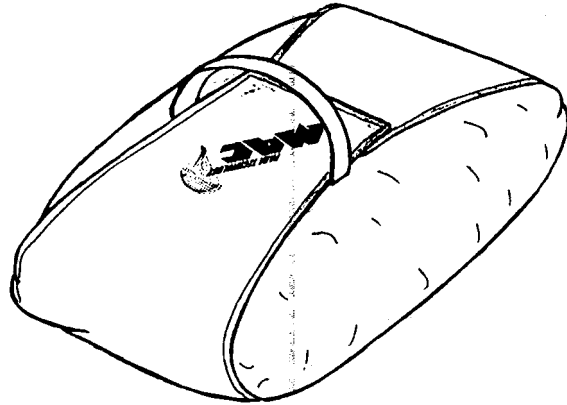
V.) Bring up the upper flap and thread the loop through the eyelet.



VI.) Lock the loop with the curved pin of the emergency handle. Repeat, in the same order, for the second eyelet and loop.



VII.) Bring up and fasten, with the helps of the Velcro strips, the long flap over the central part of the handle.



USING YOUR MAC SECURITY SYSTEM

It is, of course, best if you never have to use it. But even then, flying with an emergency system, provides the peace of mind and feeling of security, which make your flights even more enjoyable.

Some paragliding and hang-gliding schools and clubs offer courses in the use of emergency systems, and it is recommended to take such a course. The openings are carried out over water and the pilot wears a buoyancy aid, with a safety boat standing by to pick him up. Such a course provides valuable experience, and adds confidence in your emergency system.

OPENING YOUR EMERGENCY PARACHUTE

The first step in opening your emergency parachute is the decision to do so. If you have lost control over your aircraft at a considerable height and there is a chance of regaining it, you still have time to try. Opening an emergency parachute will stall your paraglider or hang-glider, and commit you to an emergency landing.

If, on the contrary, the emergency arises at a low height, you should decide as quickly as possible. It is generally considered that emergency parachutes should be carried whenever you fly higher than 50 meters, and there were cases when they have saved pilots lives even lower.

Once you have decided to open your emergency parachute

- 1.) Look at your emergency handle and identify it. This is no time for mistakes.
- 2.) Grab the handle firmly, with your thumb as well as your fingers.
- 3.) Give a strong pull. This undoes the Velcro covers and pulls the locking pins out of the loops. The outer container opens. You are now holding the closed inner container, with the canopy inside it and the lines on the outside, lightly held by thin rubber bands.
- 4.) Throw the parachute as strongly as you can in the direction which a) is unobstructed by your paraglider or hang-glider, and b) which is also the direction of the air-stream past you: the air-stream will help your parachute to open faster.
- 5) If you are flying a paraglider and it remains inflated, neutralize it as soon as the emergency parachute has opened and keep it neutralized. If it reopens, the two parachutes will interfere with each other. For the landing, keep your knees slightly bent, land on both feet, and use leg muscles to absorb the shock. If necessary, perform a parachute landing fall (P.L.F.).

**INSPECTION AND REPACKING HISTORY OF MAC
EMERGENCY SYSTEM**

Type: Serial No:

Originally inspected and folded by MAC on:

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(Recommended repacking frequency: once every 6 months)

Date:	Folder's Name:	Signature:

EMERGENCY OPENING REPORT

Type of Parachute:

Glider used:

Damage to Parachute:

Damage to glider:

Date: Time:

Conditions:

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Site:

Pilot's qualifications and experience:

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Description of incident:

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Name:

Address:

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