

CHARLY GLOBE

Owners manual

Version 1.0 from 6.2.2009



Please read this owners manual before your first flight with the Charly GLOBE !

It has been written to inform you comprehensively about the correct use of your paraglider harness. Should any questions arise relating to the use of this product, then please contact CHARLY PRODUCTS directly.

Charly *GLOBE* – reversible harness for paraglider pilots



Thank you very much for choosing the Charly Globe for your paragliding harness. You have selected one of the most innovative harnesses available at present. We are very proud of our product, and we are convinced that it will give you much pleasure.

We recommend that you read this manual carefully before making your first flight with the Charly Globe.

If you sell your Charly Globe, please hand this manual over to the next owner.

Happy flights and safe landings,
your Charly-Team

Important safety advice:

When purchasing this equipment, you accept complete responsibility and all risks associated with the use of this equipment to paraglide, including injury and death. Inappropriate use of paragliding equipment increases the additional risks. To be able to paraglide you must possess the necessary qualification (rating) for that particular country. Neither Finsterwalder Charly-Products nor the seller or importer of this product can be held liable in the case of personal damage or damage to a third party. If you are unsure of any aspect involved with the use of this product, then please contact your Charly retailer, or Charly importer for your country.



CONTENTS	page
1.1 TECHNICAL DESCRIPTION	4
1.2 SAFETY	4
2.0 THE PROTECTOR	5
2.1 PROTECTOR INSERTION	5
3.0 FLIGHT PREPARATION	5
3.1 ACCELERATOR	5
4.0 RESCUE RESERVE / CONTAINER	6
4.1 ALTERING THE CONTAINER VOLUME	6
4.2 RESCUE RESERVE INSERTION	6-7
4.3 INSERTION INSTRUCTIONS FOR RESCUE RESERVE	7-8
5.0 HARNESS OVERVIEW	9
5.1 ADJUSTMENTS	9-11
6.0 IN-FLIGHT STORAGE	11
6.1 STORAGE IN BACKPACK	11-12
7.0 FLYING WITH THE CHARLY-GLOBE	12-13
8.0 BACKPACK PACKING RECOMMENDATIONS	14
9.0 MISCELLANEOUS	15
10.0 CARE & MAINTENANCE	15-16

1.1 TECHNICAL DESCRIPTION

- The double Charly Inflate System for increased pilot safety – tested in accordance with the new certification norm. Rapid inflation in all seating positions due to the asymmetrical arrangement of the bilateral valve systems, with integrated flaps for optimised inner pressure and record-breaking shock absorption values even when the system is only half inflated.
- Innovative and technical design of the harness geometry, compatible with all classes of paraglider
- Perfect seating comfort in all pilot positions with many adjustment possibilities
- Integrated rescue reserve container, can be individually suited to the various packing volumes of prevalent rescue systems.
- Complete serial fitting with Finsterwalder P-Lock automatic light-weight components
- Practical mountaineering - and travel backpack, suitable for all prevalent paraglider sizes, integrated in the Charly Globe
- Very good compromise between minimalism, low weight, carrying comfort and removable hip strap for cable-car-only pilots.

Intended purpose	Paraglider harness
Maximum certified launch weight:	120kg
weight:	4,4 kg (size. M - without karabiners)
Suspension height:	44 cm
Protector:	Charly impact pressure protector
LTF-crash test:	19 G
LTF-certification	EAPR-GZ-7106/08
Rescue reserve:	Integrated container below the seating board
	Side deployment handle

1.2 SAFETY

Charly presents the world novelty **C.I.S.** in the field of protectors.

Stand der Technik bei konventionellen Protektoren - Original commentary of the EAPR test centre:

“The intake and outlet valves are problematic by almost all impact pressure protectors. Many protectors have good findings as long as they are fully inflated, but loose pressure too quickly (the intake openings have insufficient valve control) when a collision occurs. We have already been working with a harness manufacturer for 5 months on the optimising of the impact pressure protector and have now had a breakthrough.

For the first time we have been able to test an impact pressure protector that exhibits the same good results (+/-0,5 G) in a fully inflated condition, as well as after a 3-5 second approach flow interruption. The present intermediary results are a real advancement from a technical point of view.”

2.0 THE PROTECTOR

The GLOBE is a harness with an integrated airbag. The airbag is divided into several chambers so that in the case of a hard collision, not all of the air can escape at once. The GLOBE has been developed to absorb the impact energy as much as possible and to give the pilot maximum protection in the case of a crash. It cannot completely eliminate the risk of injury however.

2.1 PROTECTOR INSERTION

The impact pressure protector is connected solidly to the harness. It can neither be removed nor installed. When packing up the equipment, care must be taken that the polyethylene plate in the area of the protector is not bent.

3.0 FLIGHT PREPARATION

The GLOBE must be put together by an expert. Especially the first installation of the rescue reserve must be undertaken by a compatibility tester and requires the utmost care.

The basic adjustment of the harness should be undertaken by the pilot himself whilst seated in a harness simulator.

Assembly:

Charly Products recommends assembling the harness in the following order. If in doubt, you should ask for competent advice from a flight instructor, the staff at Charly or a Charly dealer.

3.1 ACCELERATOR

All of the usual speed-systems delivered with your paraglider can be mounted to the Charly-GLOBE. Charly recommends the use of the FINSTERWALDER speed pedals made from steel cable and aluminium as these can be engaged in flight without the necessity of using the hands.

Normally the accelerator is mounted from top to bottom. The accelerator cords are threaded through the rollers behind the side pockets and then through the eyelets in the lower front corners of the harness. Connect the elastic retainer to the accelerator in order to avoid getting it entangled by an emergency reserve deployment.



elastic accelerator retainer

4.0 RESCUE RESERVE / CONTAINER

The integrated rescue reserve container below the seating board has been redesigned with a large conical reserve container to guarantee the fastest & easiest deployment. The bottom position was chosen because the centre of gravity of the harness is not influenced, resulting in better comfort and a more pleasant flight feeling. The deployment handle is positioned on the right hand side and is easy to reach.

The elastic accelerator retainer system prevents the accelerator becoming entangled in the rescue reserve when the latter is deployed.

Charly-Products recommend the use of Charly rescue reserves, e.g. the EXPERT 120 Rescue reserves from other manufacturers can also be used.

As mentioned above, every first installation of the rescue reserve, (& every new combination of rescue reserve and harness), must be undertaken by qualified trained personnel. The pilot himself must undertake a test deployment of the rescue reserve whilst sitting in the harness in a harness simulator, by releasing the inner container from the harness outer container.

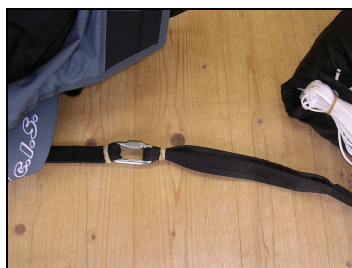
This check must be carried out every time the reserve is repacked and reinstalled.

4.1 RESCUE RESERVE INSERTION

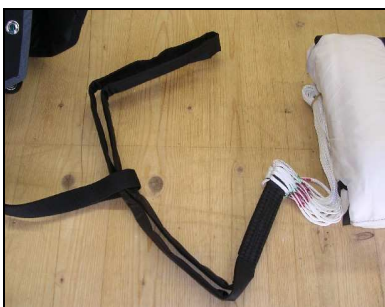
CONNECTING THE RESERVE BRIDLE LINE TO THE HARNESS

A screw-lock link with a minimum strength of 2400 daN is recommended, eg. Maillon Rapid 6mm screw-lock link. The karabiner should have a strength of at least 9 times the maximum launch weight. **The webbing straps on both sides of the screw-lock link should be fastened with rubber rings, retention bands or shrinkage tubing.**

By bridle line / webbing connections, great care must be taken to ensure that the fastening is not asymmetrical. By an asymmetrical connection, the webbing straps can slip, causing considerable frictional warmth and possible tearing in the case of a reserve deployment.



Connection using screw-lock link



Connection harness strap / bridle line

CONNECTING THE DEPLOYMENT HANDLE TO THE INNER CONTAINER

The deployment handle of the integrated rescue reserve container is a part of the Charly-GLOBE harness. Only this deployment handle may be used. It is connected to the inner container by looping the band on the deployment handle through the side band of the inner container. Should there be no possibility of attachment on your inner container then such must be sewn on by qualified specialist staff.



Always attach the deployment handle on the side

4.2 ALTERING THE CONTAINER VOLUME

As rescue reserves are tending to become smaller and lighter, we have developed a special “spacer” to assist.

Using the spacer you can reduce or enlarge the volume of the container as required. When using a smaller reserve, fasten the spacer to the rear container wall using the Velcro strips.

IMPORTANT : THE FLEECE SIDE ALWAYS FACES TOWARDS THE RESERVE !!!

By larger reserves you simply omit the spacer.



„spacer“



Container without „spacer“



Container with spacer
Important : Fleece towards the reserve !!!

4.3 INSERTION INSTRUCTIONS FOR RESCUE RESERVE

By installation of the rescue reserve into the Charly-GLOBE special attention must be paid to ensure that the deployment handle is looped through the band on the side of the inner container and not through the middle band. Make sure that the deployment handle is attached as high up as possible at the seating board.

FOLLOW THE ORDER AS SHOWN IN THE PICTURES



Charly employs a loop-tensioner, hence you should not secure the release pins with a weal-link thread!

Carry out a test deployment after the first installation of the rescue reserve (in the flight position, seated in the harness) to see that everything functions correctly.

The deployment strength must lie between 4 and 10 kg !

You should check that the container is properly fastened before every launch.

As of 01.01.98 every new combination of rescue reserve and harness/outer container has to be retested by the manufacturer of the harness or of the rescue reserve or someone schooled and instructed by the manufacturer (dealer, flight instructor) after the initial packing. The operation of the rescue reserve must be carried out in the in-flight position, and perfect functioning must be possible according to the construction specifications. The re-examination must be entered in the packing and inspection document.

5.0 HARNESS OVERVIEW



5.1 ADJUSTMENT POSSIBILITIES

The GLOBE paragliding harness in the appropriate size, can be individually adjusted to suit all body shapes.

Adjustment can be carried out using the shoulder straps, the chest strap, and the side straps.

Individual adjustment

In order to ensure optimum seating comfort, various adjustment possibilities should be tried in a simulator before the initial flight is made, to suit the size of the pilot.

SETTING OF THE CHEST STRAP:

The chest strap is fastened by pressing the chest strap clasps onto the plastic button and drawing them outwards. The plastic button in the middle prevents opening. To release, press the plastic button, only then can the clasps be pushed towards the centre and lifted.



The properly closed chest strap

SETTING OF THE LEG STRAPS:

The leg straps are closed by pulling the clasp into the groove. The plastic button prevents the clasp from opening. To release the clasp, press the plastic button and push the clasp out of the groove.



The properly closed leg strap fasteners

Due to the high suspension of the leg strap fastening, the pilots thighs have great freedom of movement. Generally the setting undertaken by the manufacturer should correspond to normal needs.

Check to see that you can adopt a seated position after launch **WITHOUT** the additional use of the hands. This must be tested in a simulator. Should you require the use of your hands, then the seating angle must be checked again and the leg straps adjusted accordingly. The correct setting is achieved when the seating position can be adopted without the additional use of the hands. The leg straps are adjusted using the ends of the trimmers.

The leg straps and the chest strap have been fitted with the so called "T-Lock-Safety-System". This prevents the pilot from falling out of the harness should he forget to fasten the leg straps.

SETTING OF THE SIDE STRAPS:

Use the side straps to set the angle between the thighs and the trunk. This angle can be adjusted to between 100° and 120°. By tightening the straps the pilot sits more upright, by loosening the straps the pilot sits more laid back. It is easiest to adjust these straps during a calm flight. Consider that when flying in a more laid back position, the harness stability is lessened, and the danger of twisting up increases if a large part of the paraglider collapses.

SETTING OF THE SEATING BOARD STRAPS:

These straps set the seating depth. In the loosened position the transfer from hanging to the seated position after launch is eased, drawn tighter they ease the hanging position when landing. In the seated position, loosen the straps completely and then draw them gradually tighter until you achieve a comfortable position in which your back is well supported.

SETTING OF THE SHOULDER STRAPS:

When correctly adjusted, light pressure from the shoulder straps should be felt on the shoulders. The shoulder straps are used to adjust the harness to the body size, and also for the attitude of the seating position, from seated to prone.

6.0 IN-FLIGHT STORAGE

The Charly-GLOBE was conceived to function as an airbag. Air flows through the side valves into the chambers. Pilots should always ensure that the valves are open so that air can flow unhindered into the chambers.

It is essential that objects such as clothing, drinking bottle, paraglider stuff bag etc. be attached to the floor of the storage compartment using the special netting and elastic cord. In this way the air can flow unhindered through the three eyelets in the storage compartment. If this is not the case then the additional protector function of the storage compartment is not guaranteed.



Eyelets must remain uncovered !

In addition, care must be taken to ensure that all compression bands are completely open before launch. Otherwise the storage and protector volume is considerably reduced.

6.1 STORAGE IN BACKPACK

The Charly-GLOBE has been constructed so that there is enough room for almost every current paraglider. The Charly-GLOBE is equipped with a polyethylene plate.

This polyethylene plate ensures that the airbag is partly filled even by zero wind conditions. This partial inflation guarantees good protection even in the initial phase of the launch.

It is important that the polyethylene plate is stowed away in the backpack in an S-shape (not bent!)



Plate stowed in an S-shape !!!

The Charly-Globe is a fully-fledged alpine backpack. The back area has excellent wicking properties and is very breathable. The helmet can be affixed to the top cover using the available net and elastic cords. Hiking sticks can be attached to the backpack as well as the storage compartment.

The backpack can be pressed into a flat & pleasant to carry shape using the compression bands on either side. The back does not deform and the GLOBE remains comfortable to carry. The hip strap has an anatomically fitting shape and can be removed.



Helmet attachment



Hiking sticks attachment

7.0 FLYING WITH THE CHARLY-GLOBE

PRE-FLIGHT CHECK

Maximum safety is achieved when the pre-flight check is always carried out in the same sequence.

Check that:

- There is no visible damage to the harness or karabiners that could be detrimental to the airworthiness.
- The rescue reserve container is properly fastened and the release pins are completely inserted in the loops.
- The deployment handle is securely attached to the corresponding Velcro strip.
- All buckles, straps, zippers are securely fastened. When closed, the clasps should engage lightly. Make sure that they are engaged by pulling lightly on the straps. Special care must be taken in the presence of snow and sand.
- Compression bands from the backpack (inner side of storage compartment) are completely opened.
- Polyethylene plate on the underside of the protector must be curved.
- (not an S-shape!!!! – otherwise the protector is ineffective)
- The paraglider is properly connected with the harness and both karabiners are properly closed and secured.
- The accelerator is correctly connected on the risers.
- All pockets are closed and nothing loose is hanging about.
- Check again that the leg straps and chest straps are closed before you launch!

PROCEDURE BY RESCUE RESERVE DEPLOYMENT

It is very important to repeatedly reach down to the deployment handle in flight in order to note the position, in this way you will instinctively find the reserve in an emergency.

In an emergency situation the pilot should be aware of how much ground clearance he has & how serious the situation is. To deploy the reserve unnecessarily can increase the chance of a landing injury. If the paraglider is in a spinning motion, then it is better to try and stop this motion first (eg. with a full stall) in order to minimise the risk of the reserve becoming entangled. On the other hand, if the ground clearance is minimal then every second can make the difference between life and death.

If you have to deploy the reserve, proceed in the following manner:



Search for the deployment handle and grab it tight with one hand. Pull hard upwards and outwards on the handle thus drawing the reserve out of the harness container. Take care to throw the reserve in the inner container into free air space. If possible throw in the opposite direction to the spin, and let go of the handle!

When the reserve has opened, you must try to avoid swaying movements and tangling up. The best thing would be to draw in the paraglider symmetrically using the B-, C- or D-lines or using the steering lines. Before you touch down, adopt an upright position and try to land using the technique of a parachutist in

order to minimise the risk of injuries.

LANDING WITH YOUR CHARLY GLOBE

Upright yourself before touch down, transferring from the seated to the hanging position. NEVER land seated. This is dangerous in spite of the airbag because the spine can be injured. In all situations it is safer to land actively in an upright attitude than passively in a seated attitude.

8.0 BACKPACK PACKING RECOMMENDATIONS

These are general packing instructions, every paraglider requires a slightly different packing method depending on the size. Pack your equipment with care and do not use force. Do not forget to open all compression bands before packing your equipment.



Position the paraglider in the upper area



Pull the zipper half closed and pack the rest in the bottom area



You can fasten your helmet to the cover flap if there is no room inside the backpack

Pull on the compression bands.....and there you are, ready for the next flight/tour...



9.0 MISCELLANEOUS

WINDENSCHLEPP

The Charly-GLOBE is very suitable for stationary towing. The tow release should be hung into the karabiners. The best method is to mount the tow release onto towing adapters that are slipped over the ends of the risers before these are connected with the karabiners. Stick to the instructions for your tow release & towing adaptors or ask the advice of a flight instructor with paraglider towing experience.

BI-PLACE FLYING

The Charly-GLOBE is not recommended for Bi-place flying.

SAFETY TRAINING AND FLYING OVER WATER

We do NOT recommend the use of the Charly Globe for flying over water or for use in safety training courses. It is possible that the buoyancy of the harness submerges the pilot under water.

Caution when flying over water!

BEHAVIOUR RECONCILABLE WITH NATUR AND THE LANDSCAPE

Stick to the rules of each individual flying site. Do not discredit our fantastic sport.

10.0 CARE AND MAINTENANCE

The materials used for the Charly-GLOBE guarantee a maximum service life. In spite of this, you should always take care to keep your harness clean and to protect it, in order that it remains airworthy for as long as possible.

Avoid dragging your harness over stony ground. Try to land standing. Avoid leaving your harness unnecessarily in the sun. UV-rays are very damaging for the material.

Dry your harness if it has become wet. Store your paragliding equipment loosely in a dry and cool place. If your equipment has become wet, then dry it before you pack it away.

If possible, use only water and a soft brush or cloth for cleaning purposes. Only use mild soap to clean the harness if absolutely necessary. In this case remove all parts such as the protector, rescue reserve and seating board.

If your reserve has become wet (eg. after touching down in water), then it must be opened, dried, and repacked.

Inspect your protector for damage after a hard landing. A tear or a burst seam greatly reduce the effectiveness of the protector!

Zippers and buckles can be sprayed with silicon spray annually.

CONTROL

Before every launch, inspect the carrying harness apparatus for abrasion. Critical places are where the hip and leg straps join the seating board. Avoid abrasion to the hip straps by unburdening the straps before adjusting, and by not pulling diagonally to the strap direction.

Karabiners and SIL can corrode after contact with aggressive substances such as salt water. If necessary, rinse, oil, and / or replace. Karabiners must be replaced every 2 years due to the danger of breakage from metal fatigue. Both aluminium karabiners must be replaced at the latest after 5 years or 500 hours of usage. Hard knocks to the karabiners can lead to unseen damage and breakage during use. Aluminium karabiners with cross scratches or cracks on the surface must be replaced immediately. Since Velcro fasteners become matted and difficult to open with time, they must be inspected twice a year to ensure that the reserve deployment strength does not exceed 10 Kg .



The GLOBE rescue reserve container is fitted with a loop-tensioner system. The release pins should NOT be secured with weak link threads!

To avoid mildew and corrosion, damp harnesses must be opened up, aired and dried. Never store harnesses compressed and / or in airtight bags for longer periods of time !

MAINTENANCE CHECK LIST

Depending upon usage, harnesses must be thoroughly checked following the list given below after 2 or at the latest after 5 years. Man-made fibres are sensitive to ultraviolet rays. Therefore avoid unnecessary sunlight. The airworthiness certification expires 10 years after the date of purchase (invoice date) unless extended by an inspection from the manufacturer.

Back part: <input type="checkbox"/> visual inspection of material for damage to seams, holes, tears <input type="checkbox"/> inspection of zippers for damage & smooth running <input type="checkbox"/> inspection of Velcro fastenings Webbing straps: Inspected for damage, wear & tear, aging <input type="checkbox"/> Main hang-in <input type="checkbox"/> chest strap <input type="checkbox"/> Hip straps <input type="checkbox"/> leg straps <input type="checkbox"/> Shoulder straps & V-lines	Hardware: <input type="checkbox"/> visual inspection for damage, distortion , corrosion. <input type="checkbox"/> functionality test Protector: <input type="checkbox"/> inspected for damage <input type="checkbox"/> impermeability test carried out	Rescue reserve: <input type="checkbox"/> control the course of the suspension lines <input type="checkbox"/> visual inspection of the deployment handle, release pins, loop <input type="checkbox"/> deployment of rescue reserve, functionality test
--	---	---

REPAIRS

All repairs to the load bearing parts of the harness must be carried out by the manufacturer or an authorised service centre, in order to ensure that the correct materials and processing techniques are utilised.

ENVIRONMENT-FRIENDLY DISPOSAL

After the end of a long service life, the Charly GLOBE should be disposed of in an environment-friendly manner in accordance with prevailing laws.

We wish you many beautiful flights and happy landings with your GLOBE !

The information in this instruction manual is as accurate as possible, however, it should serve the user only as a guideline. This manual can be changed at any time if necessary. Before every flight you should ensure that no current safety notification has been issued for the Charly Globe harness. Safety notifications are issued under www.charly-produkte.de

You will find the most up to date information about the Charly-GLOBE and all other products from FINSTERWALDER / CHARLY-PRODUKTE under www.finsterwalder-charly.de