

SUBWING®

USER + SAFETY MANUAL

Congratulations!

You are now an official SUBWING owner.

We hope this product will contribute to the joyful moments in your life and give you many memorable experiences flying under water.

But first, it is essential that you read this user and safety manual in full to learn how to use the SUBWING safely.

If you have any questions, ideas, thoughts or criticism regarding anything about this product, or if you just simply want to share your impression of the SUBWING, do not hesitate contacting us by email or on Facebook. This will greatly help us improve future SUBWINGs.

Contact details:

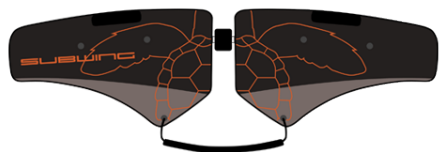
Subwing AS

Rigetjønnveien 3, 4626 Kristiansand, Norway

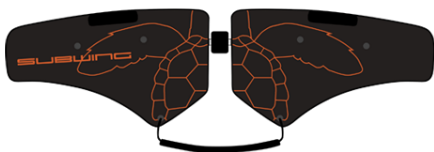
E-mail: support@subwing.com

Web page: www.subwing.com

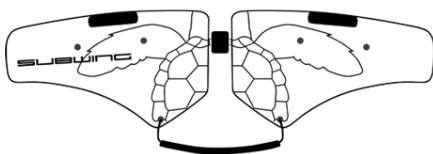
Subwing Models



1



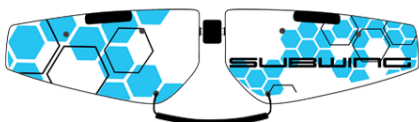
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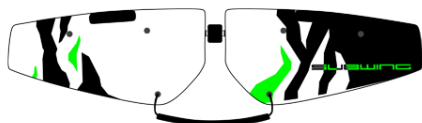
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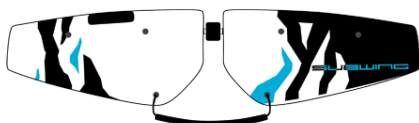
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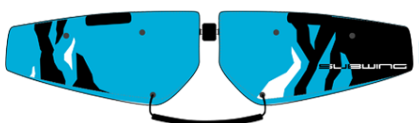
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1. Subwing Carbon Glossy
2. Subwing Carbon Mat
3. Subwing Fiberglass Black

4. Subwing Honeycomb Shark
5. Subwing Honeycomb Hexagon
6. Subwing Honeycomb Green Flame
7. Subwing Honeycomb Blue Flame
8. Subwing Honeycomb Blue Hawaii
9. Subwing Honeycomb White Flame

Getting started

Main parts

The SUBWING consists of three main parts; a swivel and two wings. These parts are designed to easily be disassembled and reattached to each other for easy storage and transportation.

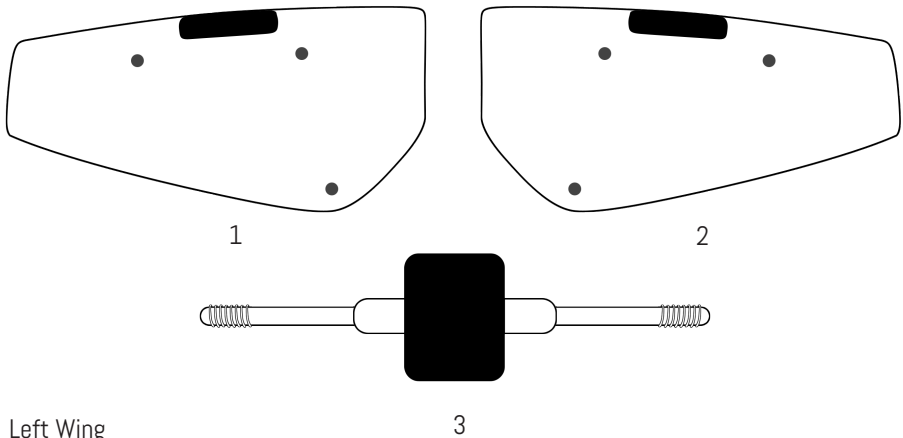
Assembly of main parts

To make your SUBWING ready for action you first have to connect the two wings. With both wings facing the top side up (rope mounts on the top), simply place the ends of the swivel in each hole of the wings.

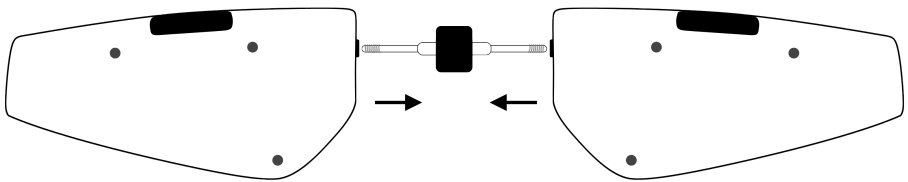
These holes have opposite threads, so check the inscripted directions on the swivel's rubber grip. Check which end corresponds to the right hole (left or right). Remember to arrange the attached ropes in such a way, that they do not get tangled around the swivel.

Now give the wings a small amount of pressure towards each other while screwing the swivel in the direction inscripted (arrowheads) on the swivel's rubber grip. Continue screwing until you feel a noticeable increase in resistance. This is the swivel hitting an internal rubber stopper and it means the assembly is completed.

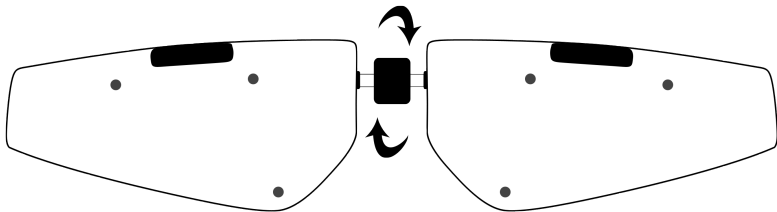
Note: Check the directions inscripted on the swivel's rubber grip for correct assembly.



1. Left Wing
2. Right Wing
3. Swivel



1. Connect the two wings, with both wings facing the top side up (rope mounts on the top), simply place the ends of the swivel in each hole of the wings.



2. give the wings a small amount of pressure towards each other while screwing the swivel in the direction inscripted.

Ropes

Note: Before using the SUBWING for the first time, the RIDER, SPOTTER and BOAT DRIVER must read the user and safety manual carefully

Before jumping into the water, there are a few things you have to know about rope lengths:

Short rope (8-10m):

- Not possible to dive deep or move far to the sides
- High possibility of bubbles from the propeller limiting your sight
- Possible to communicate with the boat driver through speaking

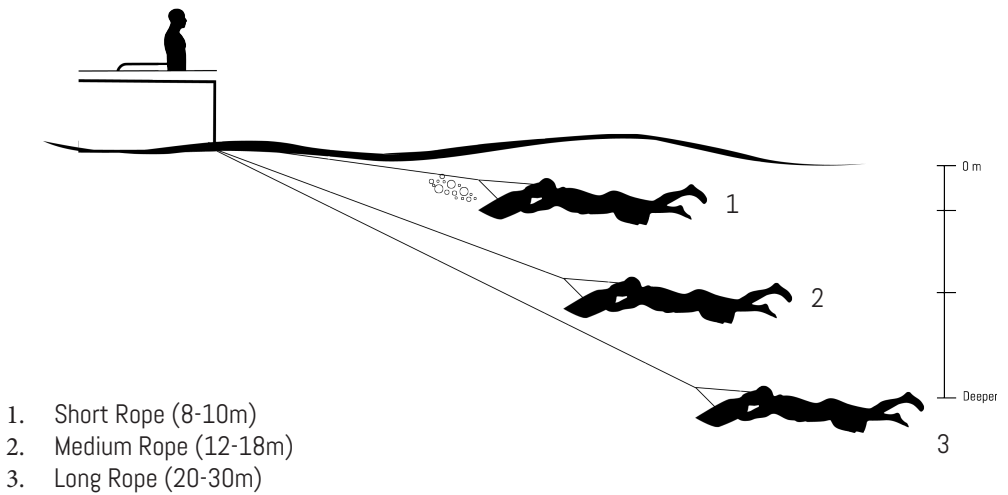
Medium rope (12-18m):

- Good movability in all directions
- Low possibility of bubbles from the propeller limiting your sight
- Difficult to communicate with the driver through speaking

Long rope (20-30m):

- Great movability in all directions
- Very low possibility of bubbles from the propeller limiting your sight
- Nearly impossible to communicate with the driver through speaking, only hand signals
- Higher risk of crossing boat traffic

Note: Hand signals should always be agreed between the spotter, the driver and the person in the water in advance, even when a short rope is used.



Preferably the towing rope should be attached behind the center of the boat, because the forces from the rope during operating the SUBWING can impair the maneuverability of the boat.

This is not a problem with larger boats, but if using a smaller boat, it is recommended that the towing force is centered directly behind the boat to prevent the pulling forces from steering the boat in a particular direction.

This can be done by making a V- shape of a rope and connecting its two ends of the V on either side of the boat with the towing rope tied in the middle. The pulling forces will now be centered directly behind the boat.

Note: When using a smaller boat, take into account that the SUBWING can dramatically decrease the boats maneuverability.

Maneuvering

Make sure that the boat engine is turned off while you are entering the water. When you are in the water, make sure that the rope does not tangle around your body while the boat tightens the rope. With the rope tight and your hands firmly on the wings, signal the driver to give a small amount of throttle.

Tips: If you turn the SUBWING up-side down it will be easier to stay on the surface and resurface from a dive, but harder to dive. In addition, the SUBWING will not dive on its own when released in speed, but stay on the surface.

Note: while operating the SUBWING three people must be involved:

1. "SUBWING RIDER" – the one operating it,
2. A "SPOTTER" – a person keeping an eye on the USER in the water and informing the driver on the current status,
3. BOAT DRIVER – should be adjusting the speed to the SPOTTER's directions. The speed should not exceed 4 knots.

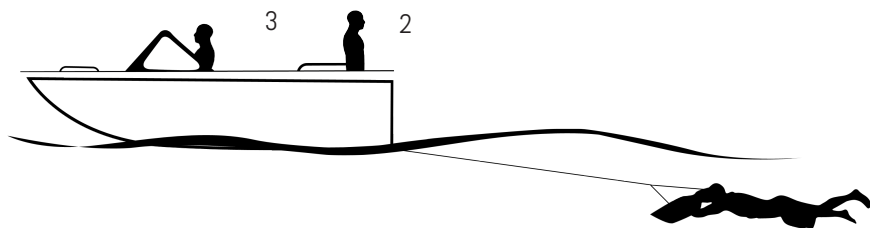
Note: Before getting in the water the rope must be in a matter that it will not tangle when released in the water.

Note: during the first time using the SUBWING under water, familiarize yourself with the SUBWING under low speeds. Do not attempt any spins or rapid turns before you are completely familiarized with the basics of resurfacing and diving.

Speed

When using the SUBWING for the first time, start with a small amount of throttle or just idling speed (depends on the engine size) and slowly speed up so the person in the water can familiarize himself of how the SUBWING behaves in the water. Around 2-4 knots is the recommended towing speed of the SUBWING.

Note: Under water, the sense of speed and the forces on the body increases drastically. Take into consideration that speed around 4 knots is considered fast. Injury to the neck or other parts of the body may occur if attempting higher speeds.



1. Subwing Rider
2. Spotter
3. Boat Driver

Diving

To dive, simply point both of your forearms downwards maintaining a firm grip around the grip pads. The wings will now be forced downwards by the water as it flows over it.

Resurfacing

To resurface, simply do the opposite of diving. Point both of your forearms upwards so the wings are being forced upwards by the water as it flows over it.

Tips: You can control the downward and upward speed by adjusting the amount of angle you are applying the wings. A bigger angle leads to a more brutal and fast reaction while a small angle corresponds to a slow and easy response.

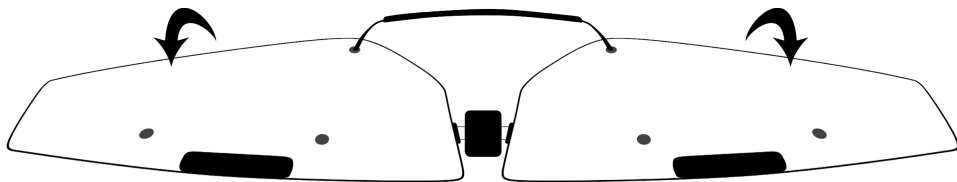
Turning/spins

Unlike diving and resurfacing you will have to point your forearms in opposite directions to achieve a successful spin.

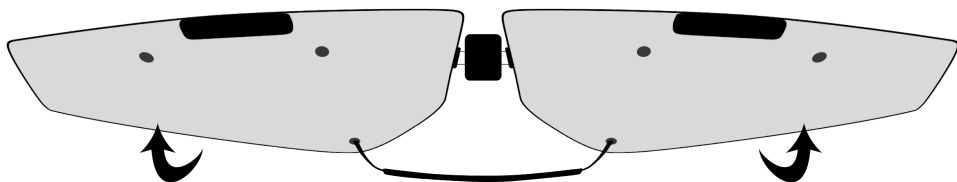
Moving to the sides or spins is usually done underwater, attempting a spin on the surface leaves one wing in the air giving you a hard time completing a spin.

Moving to the sides

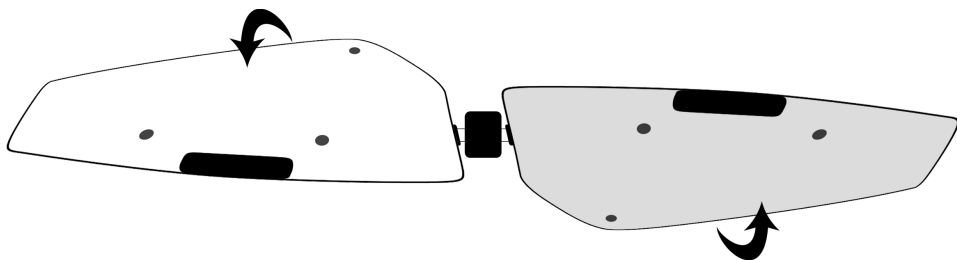
Turn the wings in opposite directions until you spin into a sideways position, you can now point your forearms in the same direction to move to either side.



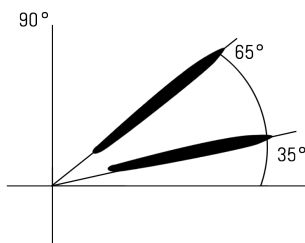
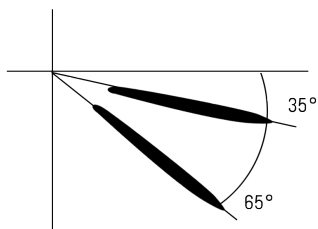
1. Diving : point both of your forearms downwards maintaining a firm grip around the grip pads.



2. Recurfacing : point both of your forearms upwardswards.



3. Turning/Spins : point your forearms in opposite directions to achieve a successful spin.



4. Speed : control the downward and upward speed by adjusting the amount of angle you are applying the wings

Using the rear rope grip

Using the rear rope grip under water needs some training and skill, but on the surface it is no problem using it to relax or when performing hand signals.

Note: The SUBWING can spin out of control if one of the handgrips is used separately. Therefore, use the rear rope grip whenever one hand is needed. This applies especially when under water.

When using the rear rope grip underwater, the forearms do no longer control the steering. To maneuver, use your entire arm from your shoulders, lowering them to elevate and raising them to decline.

Transitioning from rear rope grip to wing grips

To transition back to the wing grips it is important to get the wings back in neutral or upward position before performing the switch, or else the wings will spin out of control.

For this reason, we advise to gain some experience before attempting to use the rear rope grip. To get the wings in neutral or upwards position, pull the rear rubber grip close to your chest and then push firmly downwards.

The wings will now go back into a neutral or upwards position. You can now start the transition by moving one hand to the wing grips while maintaining the other around the rear rope grip. Follow up with the second hand after establishing a firm grip around the wing edge with the first.

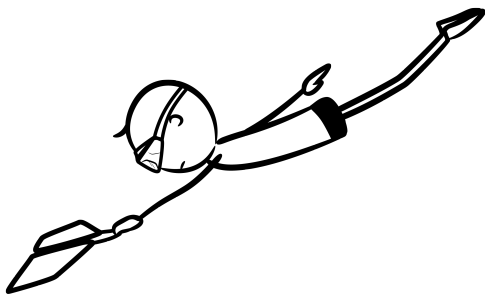
Tips: Since the rear rope grip can be used with one hand, it is a good idea to use it as you equalize your ears as you go deeper.

Note: Never dive at a steep angle when using the rear rope grip as great effort is needed to change the angle from downwards to upwards position.

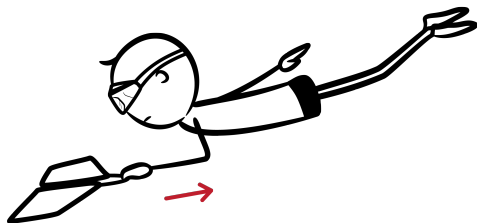
Note: Even though the SUBWING floats, it will dive on its own if released in speed. To prevent damage, stop the boat immediately.

Note: Take into account that the SUBWING dives quickly, if released under water, it might take longer to swim to the surface than using the SUBWING.

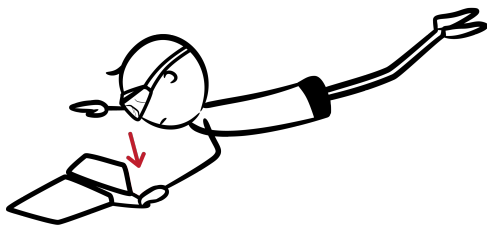
1. Hanging by the rope grip.



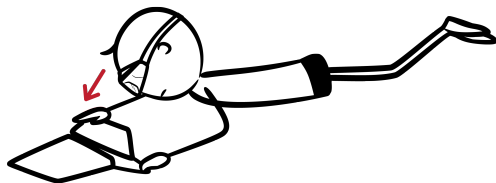
2. Pull the grip close to your chest.



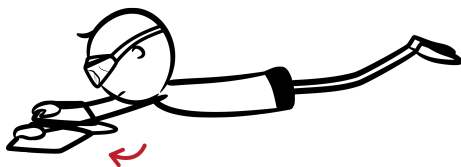
3. Push the grip downwards to make the subwing go from downwards to upwards position.



4. Do the transition back to the wing grips, one hand at the time.



Following these steps prevent the wings from spinning when transitioning from the rope grip back to the wing grips.



Care and maintenance

After use

Disassemble the SUBWING, rinse all parts in fresh water and allow to dry before storage

Storage

Place out of direct sunlight and water when storing for longer periods.

Damage

If your SUBWING gets damaged in any way, send us an email, and we will provide you with detailed instructions on how to mend the damage yourself, or replace it if under warranty.

Guarantees

SUBWING guarantees its products against any defects in materials or workmanship from the date of purchase. All products we supply come with a 12 months Manufacturer's guarantee. If your product breaks down or develops a fault within this period, you can send us your product so we can repair or replace it.

If the SUBWING has not been used according to the instructions or intentions described in the manual or below, the guarantee will not be granted.

Pay special attention to the following descriptions that will not be granted as guarantees:

1. Any breakage caused by dropping the SUBWING on a hard surface.
2. The operating speed of the SUBWING has exceeded 4 knots.
3. Any breakage caused by the SUBWING contacting obstacles under/in the water.
4. Any breakage caused by misuse of the SUBWING – against the user/safety manual.

If you experience any problems or faults with your SUBWING, please contact us regardless if the content of the guarantee has been followed or not. This will help us develop the product further and hopefully prevent any similar problems in future SUBWINGs.

Contact:

SUBWING AS, Rigetjønneveien 3,
4626 Kristiansand, Norway
Email: subwing@subwing.com

Safety notice!

Important! Please read the following information!

SUBWING conforms to current standards and is safe to operate.

Nevertheless, using the device in an unintended fashion or not following the safety instructions, may lead to injury or death of the operator and/or other people.

Read carefully all the information contained in the manual before operating your SUBWING for the first time. The information contained in the manual will help you to operate the SUBWING safely, protect yourself and others from hazards and prevent damage to the device and other property.

Please keep this manual in a safe and easily accessible place for reference whenever needed.

Marine wildlife protection

As our products are tightly connected to water environment, SUBWING is focusing on spreading the marine wildlife conservation awareness.

Be aware of the damage you can cause by intervening into the marine wildlife. While using the SUBWING, avoid touching or damaging corals, fishes, shells and other parts of the marine flora and fauna.

The motor boats used for the SUBWING usage must not exceed 4 knots as a safety requirement, in addition this substantially decreases emissions.

Enjoy the beauty of the nature and take care of it!

Please pay particular attention to the essential safety information below

Safety information

- Read the user- and safety manual before first use.
- Be aware that there is always a risk of injury when using the SUBWING. Do not use this product if you do not accept taking this risk.
- Only skilled and experienced swimmers aged 16 or older should be allowed to use the SUBWING.
- Never use the Subwing with any type of breathing apparatus.
- Using this equipment can increase the risk of shallow water blackout. Never hold your breath for extended periods of time.
- Never use any form of dangerous breathing techniques such as hyperventilating before diving.
- Educate yourself about the dangers of holding your breath underwater before using the Subwing.
- Do not use as swimming aid.
- Never use with compressed air scuba diving equipment.
- Wear a certified life jacket at all time.
- Wear body-hugging clothing.
- Use only in sheltered waters.
- Do not operate the SUBWING in strong currents, strong wind, bad weather or impaired visibility. Always check the weather forecast before you set out and pay close attention to local weather conditions.
- Do not use in areas occupied by swimmers or divers.
- Maintain great distance to crossing boat traffic.
- Maintain great distance to other people and objects.
- Always have a spotter in addition to the boat driver observing the person in the water.
- Only use with a responsible watercraft operator who knows how to operate a watercraft properly.
- Take all reasonable precautions in the use and operation of your SUBWING and boat.
- Check the rope for frays, cuts, sharp edges, knots, or wear before each use. Discard and replace rope if any of such condition occur or if rope appears to be worn. Such conditions may lead to damages.
- Rope and the Subwing is subject to deterioration when exposed to direct sunlight. The life of the product will be extended when stored in a dark place.
- Do not add hardware or attachments to the SUBWING that are not otherwise supplied by the manufacturer.

- Never use the SUBWING while under the influence of alcohol, medication or drugs.
- Take in care that despite every precaution taken, it is still possible for diving goggles to come off during operation of the SUBWING and for contact lenses to be lost.
- To prevent collisions, always maintain a safe distance to other swimmers, watercrafts or any other objects that may be in the water. Any collision may result in serious injury or death.
- In most cases, the general personal liability insurance of the user does not cover property damage caused by the use of the SUBWING. Before using the SUBWING you are encouraged to contact your insurance provider for information on a suitable insurance policy for coverage in cases involving damage.
- Always avoid routes travelled by watercrafts such as other boats, jet skis, etc. Take in account the speed at which other watercrafts are approaching.
- Only skilled and experienced swimmers should be allowed to use the SUBWING for diving to a depth of up to 2.5 m.
- Be aware of the difficulty to judge the distance of objects under water.
- Before resurfacing, ensure the absence of other swimmers, watercrafts or objects above you or approaching you.
- Always keep a safe distance from the bottom which may have sharp rocks or corals that could cause injury.
- You must always ensure that you are able to resurface and return to the shore or boat by yourself without the assistance of the SUBWING.
- The rider, spotter and driver must always agree on hand signals in advance.
- Never start accelerating, until the rider signals that he/she is ready.
- Ensure that the tow rope is tight and is not hooked on any of the body parts before starting the boat.
- When the boat engine is running (even in neutral) keep a distance from it, also make sure that the ropes are placed at a distance from the engine. Should the rope become entangled in propeller, immediately shut off the engine and remove ignition key before retrieving the rope.
- Turn the engine off when people are getting into or out of the boat, or are in the water near the boat.
- Never overcome 4 knots when towing the SUBWING.
- Be aware of that if the SUBWING is released in speed it will force itself down to great depths.
- Always contact the local authorities to ensure that there is no dangerous wildlife in the area that might harm you, such as sharks, jellyfish, snakes, corral etc.
- Never stay close to the engine while it is running due to the risk of inhaling dangerous fumes and carbon monoxide poisoning.
- Make sure the rope is long enough to ensure that there is no risk of inhaling exhaust fumes.

FAILURE TO ADHERE TO THE ABOVE WARNINGS AND SAFETY RULES, INCREASES THE POSSIBILITIES OF AN ACCIDENT WHICH MAY LEAD TO INJURY OR DEATH

The company SUBWING cannot take any responsibility what so ever if the SUBWING is not being used according to the guidelines and warnings found in the manual/warnings/labels.

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