

Maintaining a Universal Bar

The following information is very important to allow you to navigate safely. A kitesurfing bar, like any chandlery, must be monitored and maintained on a regular basis.

Some parts, like the bar itself or metal parts are almost indestructible, but the ropes and kite lines must be considered as spare parts, likely to wear out, and must be replaced on a regular basis.

What should be monitored? How often do you replace parts? What does the Afnor standard say?



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Philosophy

Kite Attitude is a family business. We do not belong to an investment fund. Our goal is to design the best possible bars. Safety is our priority. We tend to manufacture in France and Europe as much as possible. The bars are “made in France ». We improve the bars on a regular basis. You can upgrade parts, just as you would do for a software program: this is the principle of *ascending compatibility*, which made Windows™ so successful. The bar can be taken apart very easily: go to the Videos section of <http://www.kiteattitude.com> to view Tutorials.

It is a fact : kite practice has evolved and is becoming more and more engaged

Kitesurfers have greatly improved their skills over the past years : kiting in very light (too light ?) wind, wave riding with a hydrofoil, kiting in strong winds over 50 knots... One Dutch customer told us he had been kiting in 65 to 70 knots winds and a mate was riding a 7m2 kite and jumped 27 meters high. Never do this of course! The strength of the wind is proportional to the square of its speed.

The bar will age more or less quickly: from one rider to another, the difference is huge

Maintainance of a control bar can be compared to a car: you have to change the oil, tires, brakes, suspensions, battery, ... The bar will wear out more or less quickly, depending on a number of aspects:

- Where you drive and the kind of road
 - o In tropical areas, a car wears out 3 times faster
 - o highway versus rocky trails, salted road (snow), or even a beach...
- Are you driving 5000 miles or 50000 miles per year?
- What you are doing with your car, which kind of load you put in (stones, dirt, dogs...), what you carry, your driving style : soft, aggressive, fast...

... This is exactly the same with kiteboarding!

In tropical areas, due to the combination of high humidity, salt and heat, the gear will wear out way faster. Same if you kite in the South of France (or in Miami) versus North of France (or Canada).

Some beaches tend to be more destructive than others, because of sharp stones, shells, reef, corals, rocks, or garbage...

If you kite **at least twice a week**, most of the year, this is considered as **intensive practice**.

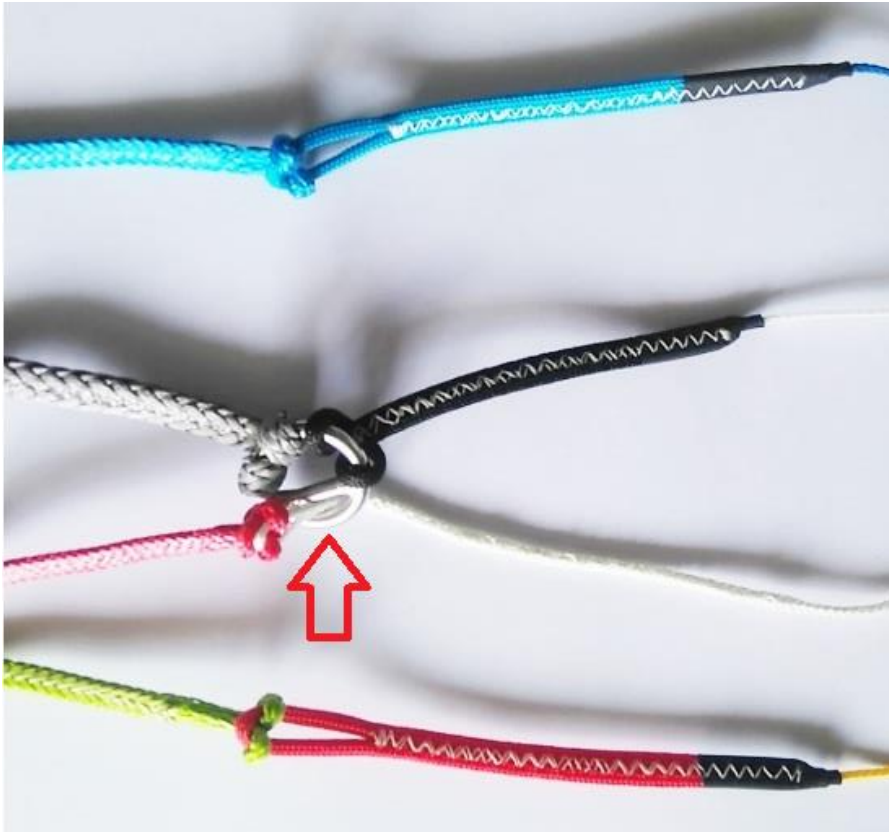
If you ride, then land the kite on the beach, then some wet sand may “glue” to the ropes and lines. Sand is abrasive. It is a good idea to dig in the bar into the water just before you start kiting, to remove the sand from the bar, the Clamcleat and the leader lines and the bottom part of kite lines.

In the face of these developments and types of practices, and without endorsing them all, we must constantly improve and make the bars more reliable and invite you to be vigilant and follow these instructions.

Front line connected to the safety line

If you are kiting with a bar whose front line connected to the safety line has a sleeve and a stop ball, you are not concerned with this chapter.

If you are kiting with a bar whose front line is not coated (white thin splice), see picture below, you need to watch the (white) loop of the front line that is connected to the safety line:



In order to maximize your safety, the universal bar is designed with a single flag out line, and allows relaunch after triggering the quick releaser. When you trigger the quick releaser, then the kite flags out and loses most of its power, because only one front line holds it.

In order for the front line to slide perfectly within the quick releaser *both ways*, we connect the safety line to the front line with a thin splice, without any sleeve. So the white loop may wear out, due to wet sand, the friction with the safety ring and traction from the kite.

You are most concerned and should pay even more attention if :

- You kite very often (you are an intensive user): twice a week most of the year, or even more
- You happen to jump, especially with a foil kite or a monoskin kite (which pulls a lot)
- You are a heavy rider
- You tend to kite pretty much overpowered (with a big kite) in strong winds

In this case, we suggest that you change the setup. See further.

The white line is in good shape if you don't see that its diameter is reduced or if you don't see any visible wear on the line.



This picture shows that the white loop is in very bad shape and was severely worn.

Do not kite in such a situation, as the line may brake at any time.

If you are just kiting without jumping and have a cool/soft riding style, even in the waves, the white loop should remain in a good condition for a fairly long time. But the precautionary principle leads us to tell you to monitor the line and the loop, especially if you have been using the bar for several years.

What should you do if you see wear and tear ?

Option 1: replace both front lines (or better: all 4 lines)

You should replace both front lines, rather than one front line, to make sure they have the same length.

You might want to replace all 4 lines, to make it easy :



Option 2: shorten the front lines

You can ask a professional kite repair shop to shorten the lines. He can cut 20 cm above the weakened thin loop and make a new thin splice. He must shorten the other front line, and potentially do the same for the back steering lines.

If you shorten only the front lines, and not the steering lines, then you need to adjust the back leader lines and reduce them too.

There are many repair shops in France that can do it for about 5 to 10 euros per line. You can Google them:

- Bruno Thomasse, Kite Repair, Normandy
- Benjamin, KiteLineShop, Normandy
- O'Rider , Brittany
- Jean-Louis Bisschop, Rennes city, Brittany
- Aurélien Cassou, RepKite, Montpellier
- Olivier, Chinook, Leucate

** in the past, the big brands had set up the safety on both front lines and not single line flag out. This was a more durable solution, because the front line would not go through the center of the quick releaser. But it was very risky in high winds conditions, because the kite would keep pulling hard after you triggered the quick releaser.*

Other setup with a stop ball

Unlike most quick releasers on the market, the center hole of the AKA is fairly wide (11 to 12 mm, versus 8 mm on average). Then we can use a coated loop connected to the safety line, and it will slide through the quick releaser.

Benefit : the loop of the kite line is better protected against friction because of the black sleeve and will last longer.

Drawback : when you trigger the safety, the front line will slide through the center of the quick releaser, but if you want to relaunch the kite, especially in deep sea, the front line may not slide back easily through the center of the quick releaser, because of the thickness of the connection between the front line (with a sleeve) and the safety line.

Kite schools should never use this setup, because if trainees trigger the QR every day for months and months, then the starting point of the black sleeve may wear out, when going in and out of the stop ball.

Stop ball with a « 4 direct line setup » (no front leader line)



This picture shows that we inverted the 2 front lines.

This setup corresponds to the Starter bars, the School bars and also if you chose “4 direct lines” instead of the standard setup with “high” split point.

To invert the 2 front lines and use the stop ball, you need to remove the safety line. Go to the **Videos** section of the Kite Attitude website to see a tutorial explaining how to remove the safety line:

<https://www.kiteattitude.fr/en/blog/tutorials/how-to-reinstall-the-safety-line>

Be careful when you insert the black loop in the stainless steel safety ring:



Error !

The black coated loop should not go through the thin space of the safety ring



Correct

Set up with a high split point (the front leader line is 1.15 meters long) :

If you have a Pro Model Totem or FreeStyle bar with a front leader line that is 1.15 m long, here is how you should invert the setup. Make sure the black coated loop does not go through the thin space of the safety ring:



AKA Quick Release (QR)

The French Afnor standard NF S-52 503 requires that you replace the QR every 2 years, or even sooner if you use the bar intensively (kiting twice a week or more). This is valid for all brands of QRs on the market.

What matters most in terms of security is the chicken loop tube and the rope inside.

Nb : in September of 2017 we had to recall all chicken loop tubes sold during the summer, because the quality of the tube was not optimal. You can recognize these loops because of the small waves :



If you know someone that kites today with a chicken loop with waves, please tell him to contact us for a free upgrade.

The smooth chicken loop tubes made without waves are reliable (and made in Europe). No known issues.



We suggest that you take apart the AKA QR and check the rope inside the chicken loop tube.

The rope is made of strong Dyneema™ (sustains 800 kg) and comes from Europe. It is trippled in the middle. Even though the rope looks good, it is best to replace it every 2 years.

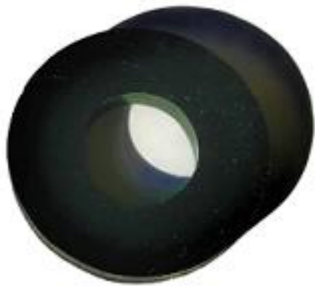
Here is a tutorial showing how to take apart the AKA QR and replace parts:

<https://www.kiteattitude.fr/en/65-aka-quick-releaser-v2.html>

We also suggest that you replace the elastic every 2 years (precautionary principle of Afnor standard).



By the same token, you can replace the bumper at the top of the quick releaser. This bumper has no safety function, it is only a bumper to better protect the bar center and the top of the quick releaser.



Snowkiting with the AKA QR... disclaimer!

If you decide to kite in the snow with a universal bar, you do it at your own risks and we waive all responsibility.

In the mountains, the snow can freeze at the top of the quick releaser. Then it becomes impossible to push away the quick releaser. This is true for all « push away » quick releasers on the market.

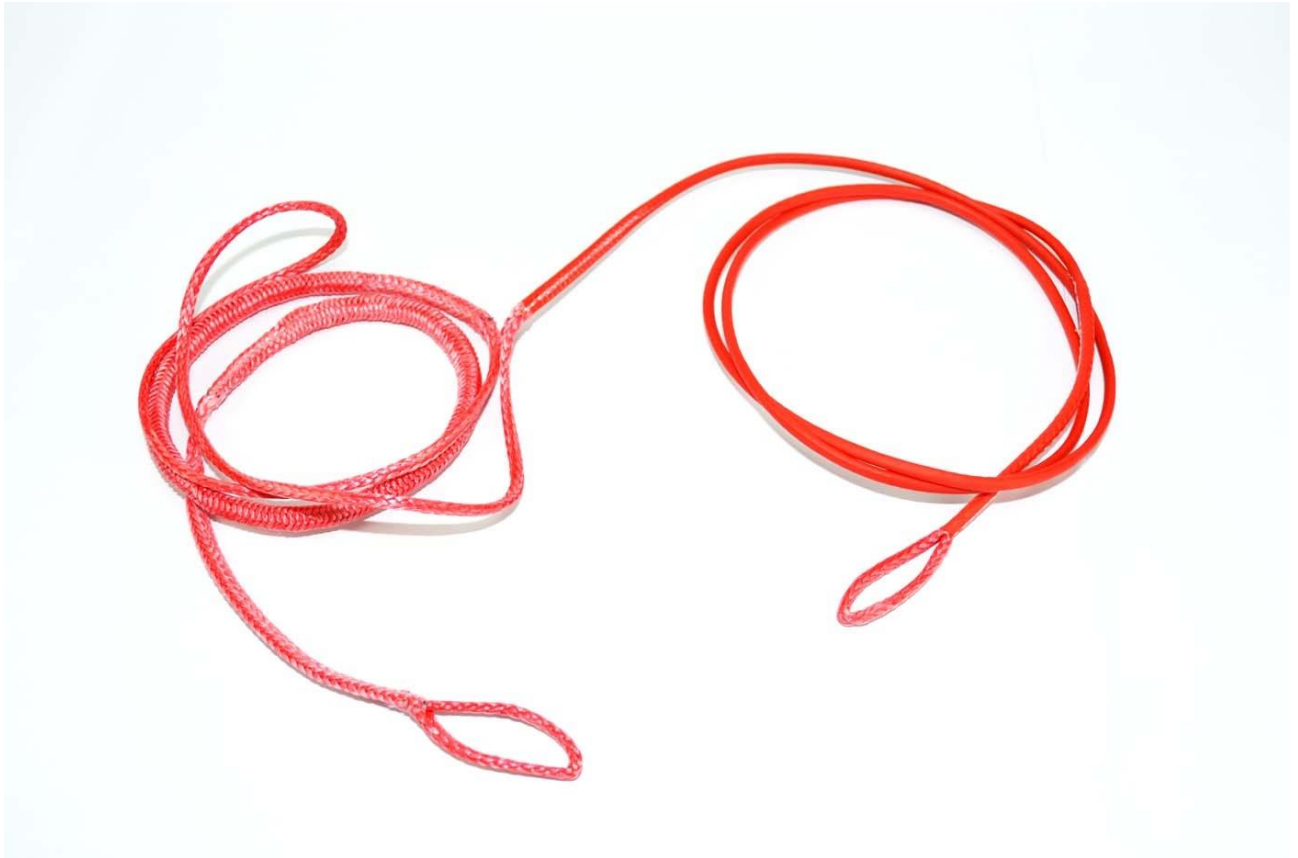
AKA 1 or AKA 2 QR?

There are 2 differences between the AKA 1 and AKA 2 : the swivel and the T Bone. The AKA 2 swivel and T Bone are made of super strong alloy (sustains 800 kg or more), while the AKA 1 swivel and T Bone are made of plastic. So the AKA 2 is way stronger than the AKA. We suggest that you upgrade to AKA 2, especially if you kite with foil kites or monoskin kites, because these kites pull more than inflatable kites.

You can [upgrade to AKA 2](#) for 18.90 euros (or 20% less 😊 if shipped outside of the EEC).

Safety Line

The red safety line connects the front line to the leash:



If your bar is more than one year old, it may have happened that the red safety line has gone through the thin space of the safety ring. If so then you need to reinstall the safety line properly. We now have a safety ring with a constant space for the front line (3 mm) that is better built. Contact us for a free upgrade.

If you have a safety line with a plastic coating, then make sure there is no hole on the plastic (due to a shell for instance) in the coating, because it may jam inside the quick releaser. If so you must replace it to avoid problems.

Depower Rope

Coated or not ? How often should you replace it?



Totem and FreeStyle Universal Bars

The depower line is not coated, for 2 reasons:

- This allows you to see how the rope looks, so you can decide to replace it or not, depending on the wear.
- Also, as the inventor and maker of the universal bars, that can fit any kite and all users (young, short or tall...) for all riding styles (wave riding, freestyling, hydrofoiling), we wanted people to be able to adjust the length of the depower throw. This would have been impossible with a PU tube covering the depower line.

So we use a very thick dyneema rope (5.5 mm) that can sustain 2 tons. Thickest rope on the market...

Over time, you will see that the exterior of the rope will look a bit fuzzy, but you should not worry about the overall strength of the rope. The bar centers of the universal bars are made of very smooth and rounded stainless steel ; our bar centers are the widest of the market. So the rope does not get damaged deeply and we did not experience any breakage to this day. Thousands of people have been kiting with this rope for years and very few people replace them.

According to the precautionary principle, you should replace it every 3 years.

Race Foil Bars (double pulley setup and trim extension)

We decided to use a PU tube for these bars, because the global rope setup is likely to be used for carbon bars. On the opposite of a stainless steel bar center, a carbon bar center is very abrasive. So we have to protect the rope.

The current rope setup is used with the Kite Attitude bars, but also with bars of other brands, made of carbon. Everybody is happy, including the best world riders at the hydrofoil pro tour.



The PU tube is made in France specifically for Kite Attitude. The rope is 4 mm rope, and is doubled inside the tube. It is super tight and pulled inside the tube with big strength, so that the sand cannot get in. So the depower rope is very strong and reliable. The safety line does not get inside the PU tube, because we doubled the depower line in the tube, so there is no empty space; we don't want the sand to get in. We also want the safety line to slide more freely and not get damaged over time by getting inside the tube.

You can purchase the [universal race foil kit](#) if you purchase a carbon bar from another brand.

Other Ropes

No special comment about the other ropes (front leader line and back leader lines). They can last several years, provided they were not damaged with sea shells, reef or rocks for instance.

We suggest you replace them every 3 years (precautionary principle).



Kite Lines

We use high quality dyneema™ lines from Europe. They sustain loads of 425 kg* and are coated with silicon, which better protects them from abrasion. They are stiffer, and easier to untangle. Little or no elasticity : the kite reacts immediately, which is really nice and greatly improves the steering.

The back steering lines support much less traction, compared to the front lines which support most of the traction.

** except if you choose race lines, which can stand 300 kg.*

Your kite lines are really strong. Just make sure they did not get damaged by the reef, shells, or another kiter.

We suggest you replace them every 3 years (precautionary principle).

You tangled your lines with another competitor during a contest such as the Défi Kite?

In this case, look at your lines very very closely. When two lines get tangled together, the rubbing heats up the lines in a couple seconds and can lead to melting your lines and breaking them! This is the reason why kite lines cannot be used for paragliding. Make sure you don't see any cut or beginning of cut on your lines.

... Thank you for your attention to this document!