KARVER
sailing experience
www.karver-systems.com

INSTRUCTIONS FOR CONTINUOUS LINE FURLER KF1, KF2, KF5

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1 IMPORTANT INFORMATION:

- The KF range of continuous furlers is designed to furl free flying sails on sailboats. Any other use will not be guaranteed by Karver.
- Unlike conventional furlers, continuous line furlers must not be used for reefing a sail. The sail must either be completely unfurled or completely furled.
- The maximum working load given for a continuous line furler refers to the load applicable between the two forks. This load is applied in the same axis as the rotating system. If the furler is not working in this axis (hinge defect, for instance), the mechanism may be damaged and will not be covered by the warranty.
- Never use the top swivel to climb the mast.
- If a distortion appears on a metallic part of the system, we advise you to stop using the furler and returning it to the retailer for service.
- The new locking mechanism on the furler drum is designed to make furling from the cockpit much easier, it is not designed as a permanent lock. It is essential to secure the continuous furling line at all times when the sail is furled.
- The locking mechanism is equipped with a fuse, which is designed to break when under excessive load, intended to prevent severely damaging the furler
- In order to preserve the sails and enhance the ease of furling, it is recommended that you use high quality anti torsion cable.
- The continuous line KF furler must be attached to the deck (or the bowsprit) and to the mast on attachment points designed to resist the dynamic forces generated by the sail.

2 RECOMMENDATIONS:

On the sail:

- Several different sails (for light or heavy wind) may be used with the same KF furler, it is important to ensure they have been adapted or designed to be used with a continuous line furler.
- Each sails must be equipped with an anti-torsion cable in the luff.

- Old sails can be modified by your sailmaker before being used, consult your retailer if you have any doubts.

On the cable:

- The use of a high quality anti torsion cable is essential to the system working well. It is important that one turn with the drum results in one turn at the top swivel to ensure good furling. A thicker cable will have better anti torsion characteristics and a better surface to furl the sail onto.

3 ONBOARD INSTALLATIONS:

In its standard pack, the continuous line furler is delivered with a snap shackle on the drum and a HR “D” shackle on the top swivel.


When installing the pin of the D shackle, use pliers to ensure the shackle is tight, we recommend checking this shackle regularly to ensure it does not come undone.

3.1 Using the drum lock mechanism from the cockpit

The locking drum comes standard on all of our furlers (except KF1eco and KF12). However, the piece that makes the drum lock is not delivered installed. Installation is simple and takes only a few moments to do.

Steps to install the locking mechanism:

- Pull hard on the conical piston featuring the two flanges (it is fitted with a spring mechanism)

- Fit it into the groove on the bottom of the spool and release it once it is all the way in.  

- Check if the system works correctly by turning the furler by hand (locks in and locks out when turning the drum in one way, then the other).

- To remove the lock, pull on the conical piston and slide it out of the drum. The unit will now work in either direction. To remove the lock, pull back on the conical piston and slide it out of the drum. The unit will now turn in both directions.

3.2- Adjustment of the spool

It may be necessary to adjust the orientation of the spool depending on the orientation of the pad-eye that the drum is attached to. It will ensure that the continuous furling line is lined up with the cockpit. This adjustment will only need to be done once (scheme)

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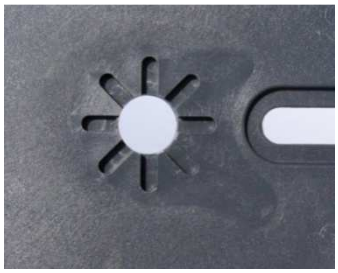
Steps:

- Remove the spool by unscrewing the 2 screws on the bottom of the spool with a 3 mm Allen key. Tip: avoid doing this operation on the dock!

- Remove the split that holds the spool in place

- Remove the spool from the shaft.


- The adjustment of the spool is done by rotating the spool to a position where the stainless steel pin fits into the spool's grooves.

- Put the spool and the split- pin back in place.

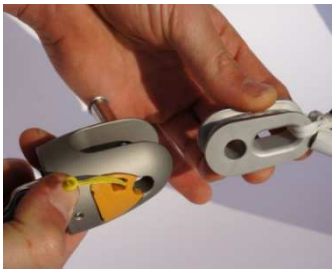
3.3- Installation of the cable and the sail:

Steps:

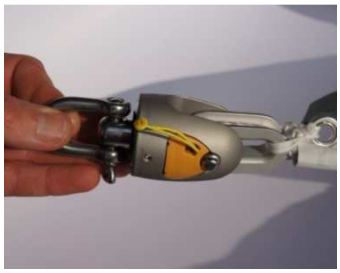
- Pull the yellow line down at the same time as pushing on the stainless steel pin to slide it open.


- Pull on the other end of the pin (already sticking out) to entirely open the fork.

- Install the tack thimble into the drum fork and the head thimble into the top swivel fork.



- Push the pin completely back in to lock the thimble in place.

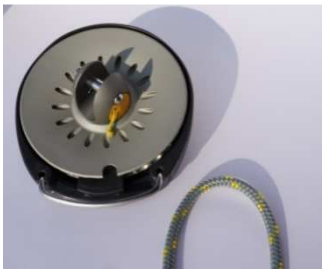
- The head of the sail should be attached to the thimble with a lashing. It is recommended to use high quality lashing lines such as Dyneema® .

*If the thimbles being used are not the ones supplied by Karver, they must use the maximum width of the fork. If this is not the case, a bending load will be applied to the pin and its mechanical resistance will be weakened. Karver cannot guarantee the safe working loads if other thimbles are used.

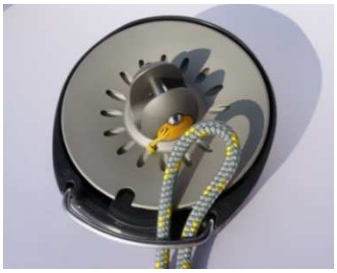
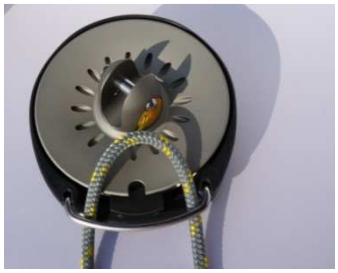
3.4- Installing the continuous line:

Steps:

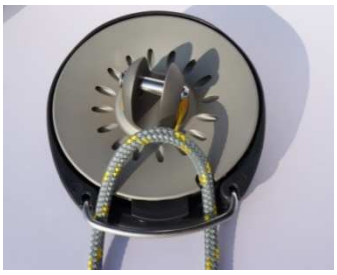
- Make a loop with the continuous line.



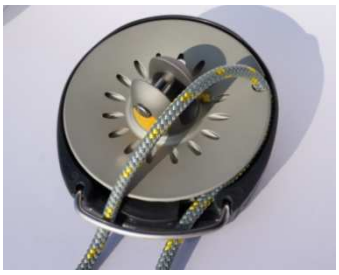
- Pass the loop under the stainless steel guide.

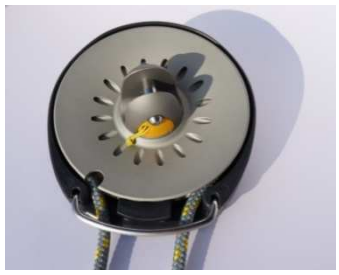



- Fit the line into the notch of the wheel on the right of the ejector.



- Rotate the wheel until the line goes under the guide and on the left side of the ejector.





4 OPERATION:

4.1- Tips for furling and unfurling the sail:

- The tension of the anti torsion rope is critical. It needs to be very tight.
- Avoid furling the sail if it is flapping. The best is to sail as deep as possible without the sail collapsing.
- It is easier to furl the sail correctly when there is tension in the sheet It is easier to furl the sail correctly when there is tension in the sheet (ideally the sail should be almost flapping).

- The continuous line should be of high quality. The bigger the diameter, the better the grip will be. If you would like the line to “declutch” when unfurling, use a stiffer line.
- Roll up the sail tight if you are facing heavy conditions and if you keep the sail up, lock the continuous furling line securely.

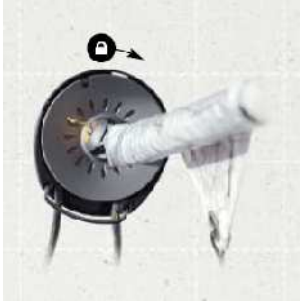
4.2- Locking the drum from the cockpit:

The new standard KF range is equipped with a removable mechanism for locking the drum.
The system is operated with the continuous line.

Sail unfurled

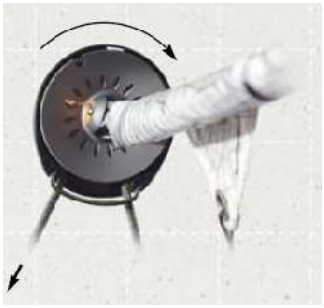
- Pull on the left line of the continuous line to furl (a marking “Furl” scribed on the spool indicates which side of the line to pull on). If the furling line is accidently released, the mechanism will lock automatically.

- When the sail is entirely furled, release the continuous line and the drum will automatically lock.



Sail furled

- To unlock the drum, pull a few inches on the left line of the continuous line (in the same direction as the sail was furled), then release and pull on the sheet, the sail will unfurl.



Note: If for any reason a load is too big, the lock is equipped with a fuse that will break and release the continuous line furler.
It will then be necessary to remove the lock (see INSTALLATION) and contact your retailer to get a new one.

5 TECHNICAL CHARACTERISTICS:

Dimensions and weight are featured in the general catalog

CHOICE OF CONTINOUS LINE FURLER:

Boat length	Surface of the sail	Spinnaker	Spinnaker & Code 0
5 - 7.5m / 17 – 23 ft	35 m² / 375 sq. ft	KSF 1	KSF 1
7.5 - 10m / 23 – 33 ft	60m² / 645 sq. ft	KSF 1	KSF 2
10 - 13m / 33 – 43 ft	80m² / 860 sq. ft	KSF 2	KSF 2
13 - 16m / 43 – 53 ft	150m² / 1,615 sq. ft	KSF 5	KSF 5
16 - 20m / 53 – 66 ft	250m² / 2,690 sq. ft	KSF 8	KSF 8
20 - 25m / 66 – 83 ft	350m² /3,770 sq. ft	KSF 12	KSF 12

This table is only a guideline. The choice of a continuous line furler depends on the boat, the type of sail and the weather conditions of use. For more information or any questions, please contact your retailer or Karver by phone +33(0) 231 883 798 or email contact@karver-systems.com

6 MAINTENANCE:

Karver continuous line furlers are machined in high quality aluminum alloy and HR stainless steel.

It is possible that over time, oxidation marks may appear on the stainless steel parts. These marks can be removed by using a stainless steel cleaner.

Rinse your system with fresh water as often as possible.

The Karver team wishes you pleasant sailing!