



FLEXIBLE FURLER INSTRUCTIONS

FF2



WARNING: READ BEFORE INSTALLING OR USING FURLER

Improper installation of your CDI Flexible Furler or reinstallation of your current headstay may result in the loss of your mast and may cause injury to those onboard.

INDEX

- Specifications...	Page 1
- Diagram...	Page 2
- Parts list...	Page 2
- Uncoiling instructions...	Page 3
- Straightening instructions...	Page 4
- Assembly instructions...	Page 5-8
- Sailmaker instructions...	Page 9
- Rigger instructions...	Page 9
- Notes about Sailing...	Page 9
- Notes about Trailering...	Page 10
- Maintenance and Storage...	Page 10
- Warranty...	Page 10

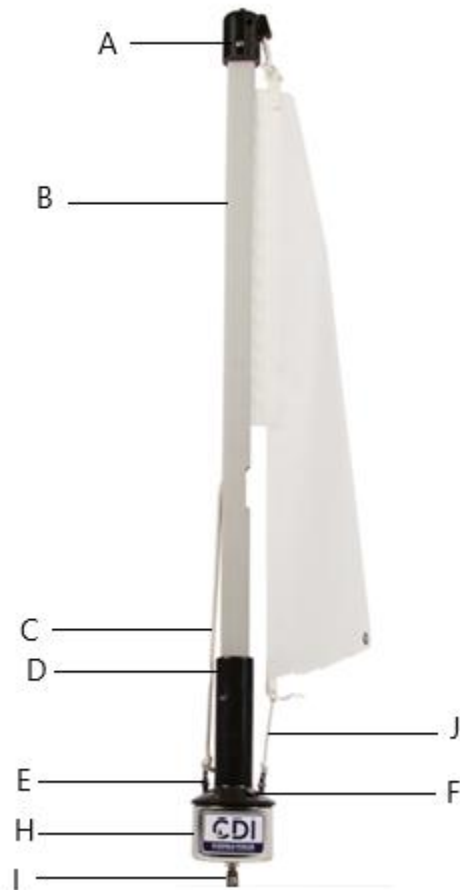
SPECIFICATIONS

- **Max Headstay Length:** 29'
- **Max Wire Size:** 3/16"
- **Max Turnbuckle Pin Size:** 5/16"
- **Headstay:** Threaded swaged stud turnbuckle with toggle at the bottom, a toggle at the top is recommended but any secure fitting like a T-bolt at the top will work. Must be secured by cotter pins. Navtec turnbuckles are not compatible.
- **Furling line:** 3/16" double braided line or any low-stretch line, twice your boat length. *Not included.*
- **Mounting:** must not be mounted above the turnbuckle. Link plates can be used for clearance.

TOOLS

- Hacksaw
- Measuring tape
- Phillips head screwdriver

Diagram



UNCOILING INSTRUCTIONS

CAUTION: READ BEFORE OPENING

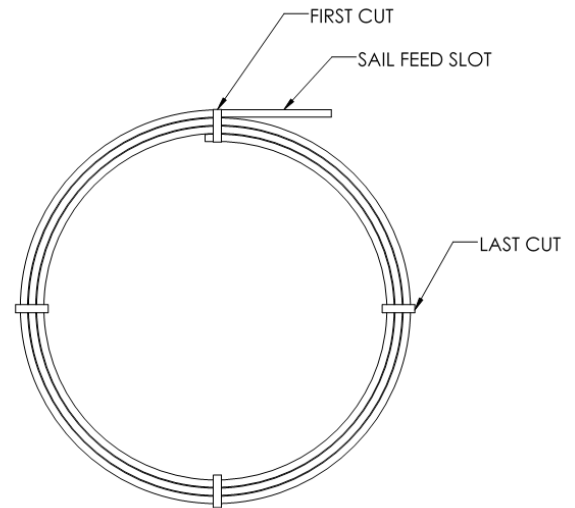
Coiled luffs have a lot of stored energy and can spring open with force when restraining tape is cut. It is recommended to wear face and eye protection. Please refer to instructions below.

The sooner you begin the uncoiling and straightening process, the faster and easier it will be to straighten the luff.

***The luff should remain coiled for no longer than 2 weeks**

Instructions for uncoiling the luff:

Note: it's best to have one person cutting the bands with at least one other person holding onto the luff firmly, ensuring it doesn't spring out



PARTS LIST

A	Halyard Top Fitting	2011
B	Luff Extrusion/Foil	LFF2
C	Halyard Assembly	1932
D	Furling Drum/Spool	2010
E	Shackle (2)	2007
F	Anchor Pin (2)	1998
G	Luff Support Pin	2009
H	Cup	1807
I	Anti-Rotation Strap	1081
J	Tack Tension Line	7022-4
-	Main Bearing	1033
-	Ball Bearing Assembly	1276
-	Thrust Washer	1253

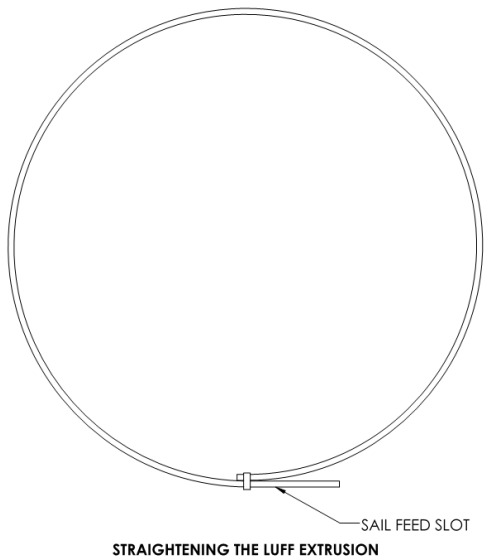
UNCOILING THE LUFF EXTRUSION

- 1) Stand the luff on its side with the tail at the top
- 2) Have one person stand with one foot on the inside of the luff while holding onto the tail firmly
- 3) The second person should then cut the band of tape near the tail, while the first person is firmly holding onto the tail and gently letting out the luff
- 4) Proceed to cut the next bands one at a time using the same process
- 5) Carefully cut the last band, ensuring everyone is clear

STRAIGHTENING INSTRUCTIONS

Instructions for straightening the luff:

Note: laying the luff on the ground with weights will not work but will form kinks instead and also void the warranty.



- 1) With approximately one person every 8 feet, recoil the luff in the opposite direction
- 2) Tape the end of the curved side to the straight side
- 3) Lay the luff on the ground for at least 3 hours
- 4) After that time, test to see if it has straightened out
- 5) If not, repeat the same process. Warmer temperatures will help to speed up the straightening
- 6) The luff can have a slight bend to it, the headstay tension will eventually straighten it out

ASSEMBLY INSTRUCTIONS

Assembly can be done with the mast up but is easiest to do with the mast down.

1. Measure the length of your headstay from pin-to-pin with your turnbuckle in its normal setting. If the mast is up, raise a measuring tape attached to the jib halyard to the top of the mast and add the length to the top pin on the headstay.
2. With this measurement, deduct 13" and cut the top of the luff using a saw. **Do not cut end with the sail-feed slot.**

Note: In 2017, we updated the FF2 halyard top fittings with a metal sheave to prevent friction when hoisting your sail, this new design requires a deduction of 13" instead of 12.25".



3. Take the halyard top fitting and push the cored end of the halyard (**without** the metal ferrule) up through the bottom of the off-center hole, not in the center. Push the halyard over the sheave and out the side of the top fitting.

4. Using the de-cored (hollow) end of the halyard with the metal ferrule, pass the ferrule down through the slot at the top of the luff extrusion on the opposite end of the sail feed slot. Trimming the halyard to the correct length will happen once the entire furler is setup.



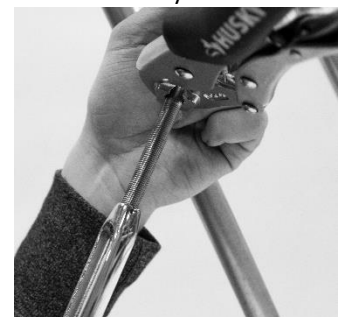
5. Attach the halyard top fitting to the luff, ensuring that the side with the halyard coming through the fitting is on the same side as the sail feed slot on the bottom of the luff. Tighten the set screw so it firmly presses against the luff.

Note: we updated the line halyards with a metal ferrule instead of the plastic traveller which would become brittle.

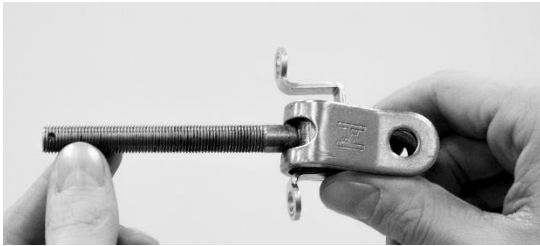
6. Using a spare line the length of your luff (not included), tie this messenger line to the de-cored end of the halyard external of the luff, this will be used to raise the sail.

7. Unscrew both ends of the turnbuckle completely.

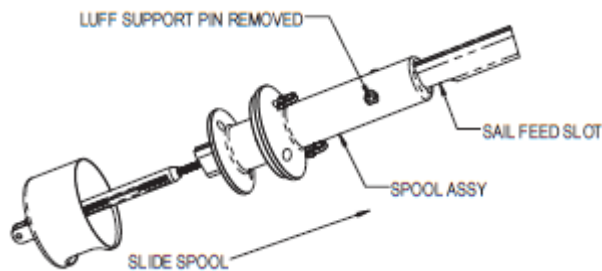
8. Pass the swage-end of the headstay down through the halyard top fitting and the luff. Using locking pliers, hold the luff above the threaded pin and screw on the turnbuckle body.



9. Using your T-bolt, add additional washers to reduce the clearance between the T-bolt and the bottom of the cup.
10. Add the anti-rotation strap to the T-bolt and washers.



11. Place the T-bolt and the anti-rotation strap through the bottom of the cup, then add the bearing (plastic or ball-bearing) to the T-bolt on the inside of the cup.
12. Align the holes of the cup with the anti-rotation strap depending on the set-up of your furling line and screw the assembly together.
13. Slide the furling drum/spool onto the luff, lining up the sail-feed slot with the anchor shackle. Ensure that the thrust washer stays inside the bottom opening of the spool.



14. If mast is up, take the T-bolt assembly and screw into the turnbuckle body, adjust to the correct length. Ensure that all cotter pins are replaced in the turnbuckle.
15. Lower the spool/drum over the bearing then raise the luff and insert the luff support pin with the cotter ring into the spool.

Note: DO NOT DRILL A HOLE THROUGH THE LUFF EXTRUSION
The luff rests on top of the luff support pin, not through it.

16. If mast is down, step the mast and attach headstay.

17. Adjust the backstay to normal tension. If headstay needs adjusting, remove the luff support pin and raise the spool to adjust, afterwards reinserting the luff support pin.



18. Use a furling line (not included) to go through the opening in the cup and up through the hole on the top flange of the spool, tie a knot to secure the line in place.

19. Before raising your sail, manually rotate the spool/drum 20 times to load the furling line. If your furling line will be going starboard, wrap the line counter clockwise. If your furling line will be going port side, wrap the line clockwise.

Note: the furling line should be low-stretch and no larger than 3/16" twice your boat length and trimmed down if needed.

20. Position the first fairlead or block (not included) so the furling line exits the middle of the cup to avoid any friction. To adjust where the opening of the cup is pointing, repeat step 14 to get the correct alignment.
21. Place a cleat (not included) near the cockpit in an easily accessible spot to tie off the furling line.
22. To trim the halyard, ensure the messenger line is attached then pull the halyard so the end with the ferrule reaches the top of the forestay at the halyard top fitting.

23. For sails that are at or near full hoist, cut the halyard so the head of the sail would be just below the sail feed slot on the extrusion.

24. For sails that are not full hoist, estimate the distance between the top of the stay and the head of the sail when it's raised (A in diagram) and add this to the length of the halyard before cutting



25. Cut the halyard end with scissors and melt the end to prevent fraying.

26. Attach the halyard to the head of the sail using either a halyard shackle (not included) or tying a knot directly to it.

27. Feed the luff of the sail into the sail-feed slot while hoisting the sail by pulling on the messenger line which is attached to the de-cored end of the halyard (step 6).

28. Remove the messenger line once the sail is fully hoisted and tie off the halyard on the anchor shackle on the spool.

Note: Always remember to reattach the messenger line when lowering your sail.

29. Tension the sail by tightening the tack tension line to the second shackle on the spool and hoisting the sail tight by pulling on the halyard at a vertical angle, straight down.

Note: Using a winch should never be required.

30. Furl in the sail by pulling on the furling line and keeping tension on the jib sheet.

SAILMAKER INSTRUCTIONS

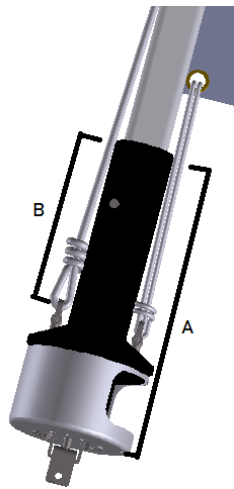
Sails require a #6 luff tape to be compatible with all CDI furlers.

Webbing at the head and tack of the sail is recommended instead of metal grommets for smoother furling but is not required.

A: Overall length of the spool = 9.5"

B: Length from the shackle to the top of the spool = 4"

Length of the halyard top fitting = 4"



RIGGING INSTRUCTIONS

The CDI flexible furler system cannot be mounted above the turnbuckle as it can cause it to unscrew and dismast. If more clearance is required, it's recommended to add link plates.

The FF2 systems are compatible with 1/4" and 5/16" turnbuckles with a threaded swage-end and a T-bolt toggle.

Most Navtec turnbuckles do not work and are not recommended as they're often too big to fit inside the drum.

Cotter pins should be used to lock the turnbuckle, not locknuts as these can unscrew and cause dismasting.

Toggles are required at the bottom of the headstay, any secure fitting at the top of the forestay will work but a toggle is also recommended.

NOTES ABOUT SAILING

The tension on the luff doesn't need to be high and should only be tight enough to remove any creases in the sail, use of a winch usually isn't necessary.

When sailing reefed, the jib leads should be moved forward to maintain proper sail shape and avoid the furler from rising off the bearing.

To furl your sail, always keep tension on your jib sheet while reefing the furling line.

NOTES ABOUT TRAILERING

When trailering, strap the furler to the mast in a horizontal position and support the end with the hardware by using a support. ie. 2x4 or PVC tube

Keep the extrusion as straight as possible, do not let either end sag or twist.

MAINTENANCE

The only maintenance required is to rinse the furler system including the ball-bearing assembly if applicable, with fresh water 1-2 times per year. Clear out any salt or dirt that may have accumulated.

Note: Lubricants are not required but Teflon sprays or dry lubricants are acceptable on the luff if needed.

STORING YOUR FURLER

Storage is best accomplished by strapping the furler to the mast in a horizontal position and supporting the end with the hardware by using a support ie. 2x4 or PVC tube

When storing, avoid making sharp bends in the extrusion. This can become permanent after a period of time and is not covered under warranty.

It is not necessary to remove or recoil your extrusion, doing this over long periods of time can become permanent or cause it to break and is not recommended as the furler ages.

Avoid exposing the furler in temperatures above 140F/60C

WARRANTY

The CDI Flexible Furler comes with a 10-year limited warranty

In order for the warranty to be valid, you must be the original owner of the system and have proof of purchase which clearly indicates the date of purchase.

If any part becomes non-functional during this time, CDI will repair or replace it free of charge, not including shipping.

Note: this warranty does not cover damage incurred from weather, trailering or transporting, collisions at sea, improper storage, improper uncoiling or straightening of the luff including using weights or heat guns, etc.

