

Essex and Suffolk Gliding Club

Dyneema Cable Splicing Instructions

Do not have any contact with the cable you are splicing during a launch on the other cable.

1. Joining a Broken Cable

- 1.1. Check the cable either side of the break and cut away any cable close to the break (up to 10 metres either side) that shows signs of damage or has previous joins in it.
- 1.2. Loosen up the cable for a distance of at least 1 metre from each cut end. This can best be done by looping it through the wire mesh on the side of the winch and pulling it to and fro a few times under tension.
- 1.3. Check that you have the necessary tools. See Photo 1.



Photo 1.



Photo 2.

- 1.4. On each piece of the cable mark at approximately 150 mm (6 inches) from the cut end beyond the length of the fid in use. See Photo 2.
- 1.5. Start at the point furthest from the end, at about 200 mm/250 mm (8/10 inches). Pluck out a strand, rotate the cord 1/4 turn and at 25 mm (1 inch) towards the cut end pluck out a second strand. Repeat until you have 6 strands. See Photo 3.
- 1.6. Repeat the same procedure with the other end and then use the knife to cut off the plucked strands. See Photo 4.



Photo 3.



Photo 4.

1.7. Fit one end of cable to the fid. Make sure the end is snugly fitted into the hinged or grooved end of the fid. Close the hinge and bind it with adhesive tape. Make sure the tape is fitted smoothly (without wrinkles) and continue until it has just run on to the cable beyond the fid. Do not use too much tape. If it is too thick it will hamper the next stages. See Photo 5.

1.8. Push the fid, attached to the end of one piece of cable, through the other piece of cable at your first mark, fid length plus 150 mm (6 inches). Make sure you go between the strands and roughly centrally. Go through at 90°. Do not pierce the strands. See Photo 6.

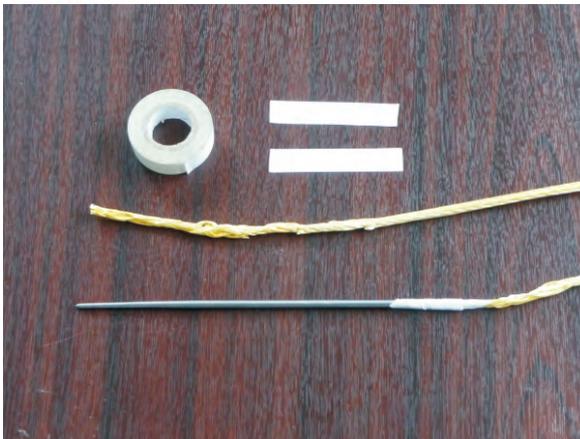


Photo 5.



Photo 6.

1.9. Pull the cable through until the two cut ends meet.

1.10. On the side towards the unbroken cable, not the cut end, you can open up the cable by pushing it along its axis, you will see little holes where the strands open up. Skip two holes from the exit point where the fid came out and push the fid into the third hole at an angle of about 45°. This means it should come out at the fourth hole on the underside. See Photo 7.

1.11. Repeat this once more another three holes from the previous exit point. See Photo 8.

1.12. Starting a further three holes along the cable feed the fid into the centre of the cable and work the cable over the fid until the tip of the fid is twice its length

into the core. Make sure that the tip of the fid stays central in the cable and does not poke out the side at any point. The cable should “concertina” up so that the required point can be reached with all the cable packed on the fid. See Photos 9 & 10.



Photo 7.

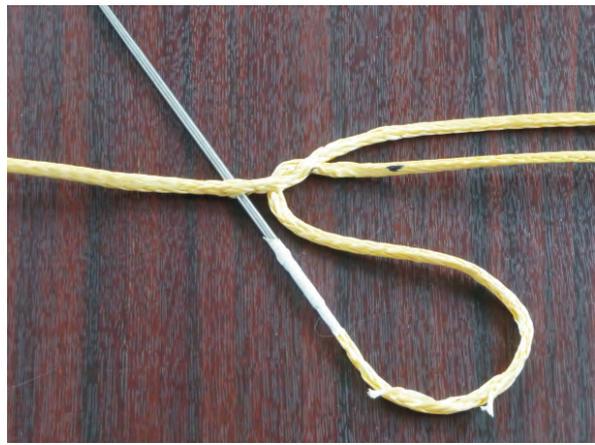


Photo 8.



Photo 9.



Photo 10.

1.13. Once comfortably past the two fid length mark bring the fid out through the side of the cable and pull clear. Remove the adhesive tape and detach the fid. Now pull the outer cable along so the tapered tip of the other cable disappears inside. See Photo 11.



Photo 11.



Photo 12.



Photo 13.

1.14. Repeat stages 1.7 and 1.10 to 1.13 on the other cut end of cable. Your splice is completed. See Photos 12 & 13.