

Field Strain Relief Instructions for Biospherical Instruments Red Polyurethane Jacket Cable (BSI 62.55383):

Needed Supplies:

Isopropyl Alcohol

Paper Towels

1 Terminated BSI cable

24” Heavy duty mesh grip (McMaster* 9142K1 / BSI 88.10110)

1 3/16” Dia. D shackle (McMaster 3824T32/3824T42 / BSI 88.19218/88.19219)

1 roll 3M 130C tape (McMaster 76455A18 / BSI 88.10120)

1 roll 3M Super 88 tape (McMaster 76455A26 / BSI 88.10122)

Needed Tools:

Measuring Tape

Marking Pen

Medium Philips or Standard Screwdriver

Note: If any un-shrunk shrink tube is present on the wet end of the cable carefully remove it by cutting it lengthwise. If you attempt to shrink this tube in the field without the proper heat gun it is easy to overheat and damage the mesh grip and/or the cable jacketing.

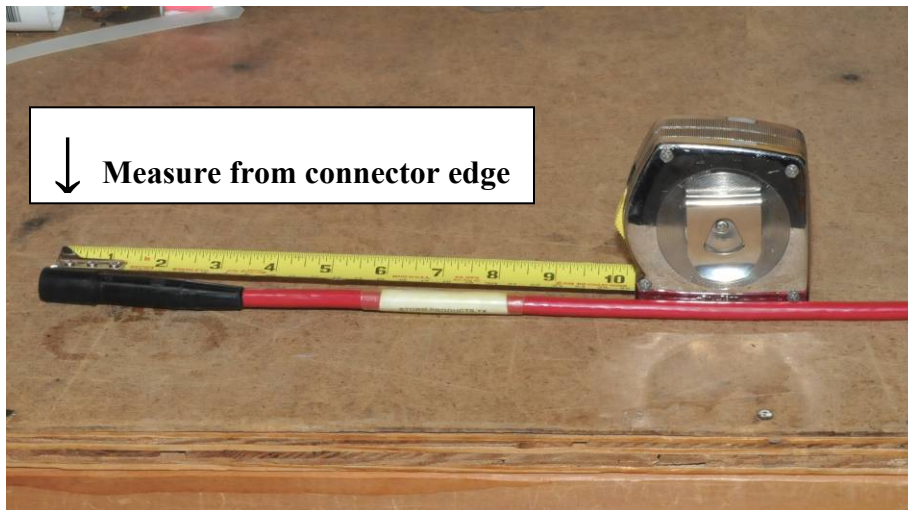
* McMaster refers to McMaster-Carr, found at www.mcmaster.com



1. Slide the locking sleeve away from the connector and towards the “dry” end of the cable so it is temporarily out of the way.

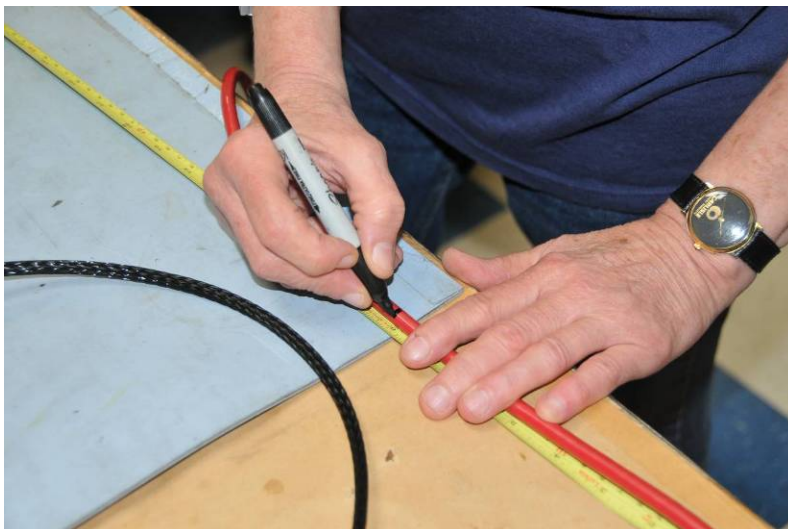


Step 1



Step 2.a.

2. For C-OPS or SuBOPS the cable is measured and marked at 39.25 inches and 47.25 inches from the connector. For PRR800/2600/2500 cables the appropriate distances are 57.75 inches and 65.75 inches. For BIC/BIR and Q-series instruments the appropriate distances are 52.75 inches and 60.75 inches.



Step 2.b.

3.a. The red cable jacket must be cleaned with alcohol to remove any residue where the strain relieving components are to be installed. Thoroughly clean around 12” of cable centered about the measurements made in the previous step.



Step 3.a.



Step 3.b.

3.b. The residue is greasy and yellowish.

4.a. Over the specified 8” segment of cable, half lap 3M 130C tape, starting from the “wet” end to the “dry” end. Apply the tape stretched approximately 10-20% when wrapping (not much).



Step 4.a.



4.b. Try to make evenly spaced lap-wraps so the result is a uniformly ribbed portion of wrapped cable.

Step 4.b.

5. Make a double wrap of tape at the “dry” end and snap off tape so it self-fuses.



Step 5



6.a. Slide the grip over the connector and cable so that the cable exits the grip 9” from the “dry” end of the grip.

Step 6.a.

6.b. To accomplish this, the grip will need to be expanded (with a pen or other non-sharp object) to allow the connector to exit through a gap in the braid.



Step 6.b.



Step 6.c.

6.c. The locking sleeve must then be slid over the grip back down to the wet end connector before proceeding.



Step 6.d.



Step 7.a.



Step 7.b.

7. Slide the grip over the 130C tape so that the cable comes out of the grip about 1/4" before the 130c tape portion begins. The grip should then extend over the "dry" end of the 130c tape by around 3/4".

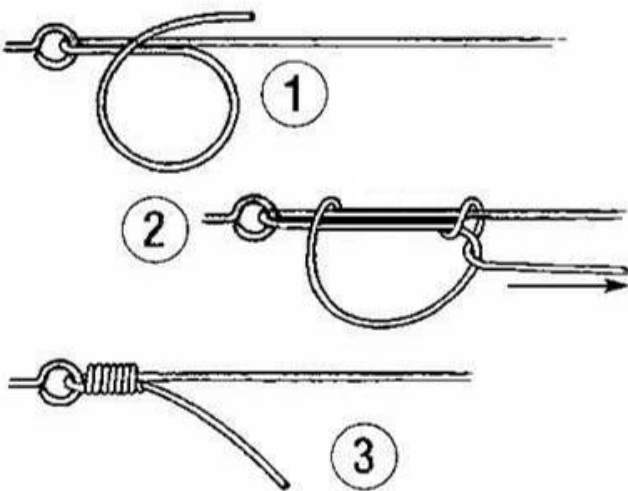


Step 8.a.



Step 8.b.

8. Starting 4.5" from the dry end of the 130C tape wrap, tightly half lap 3M Super 88 electrical tape towards the dry end of the grip, extending 1/2" past the end of the grip. Snap off tape so it self-fuses.



9. Tie the shackle to the loose end of the mesh grip using a "uni-knot" with two wraps.

Step 9

10.a. When starting the knot be sure to leave enough tag end to easily complete the knot.



Step 10.a.



10.b. First wrap.

Step 10.b.

10.c. Second wrap.



Step 10.c.



11.a. Pull tight to a cinch knot; a screwdriver helps hold the shackle when pulling.

Step 11.a.



11.b. A completed uni-knot.

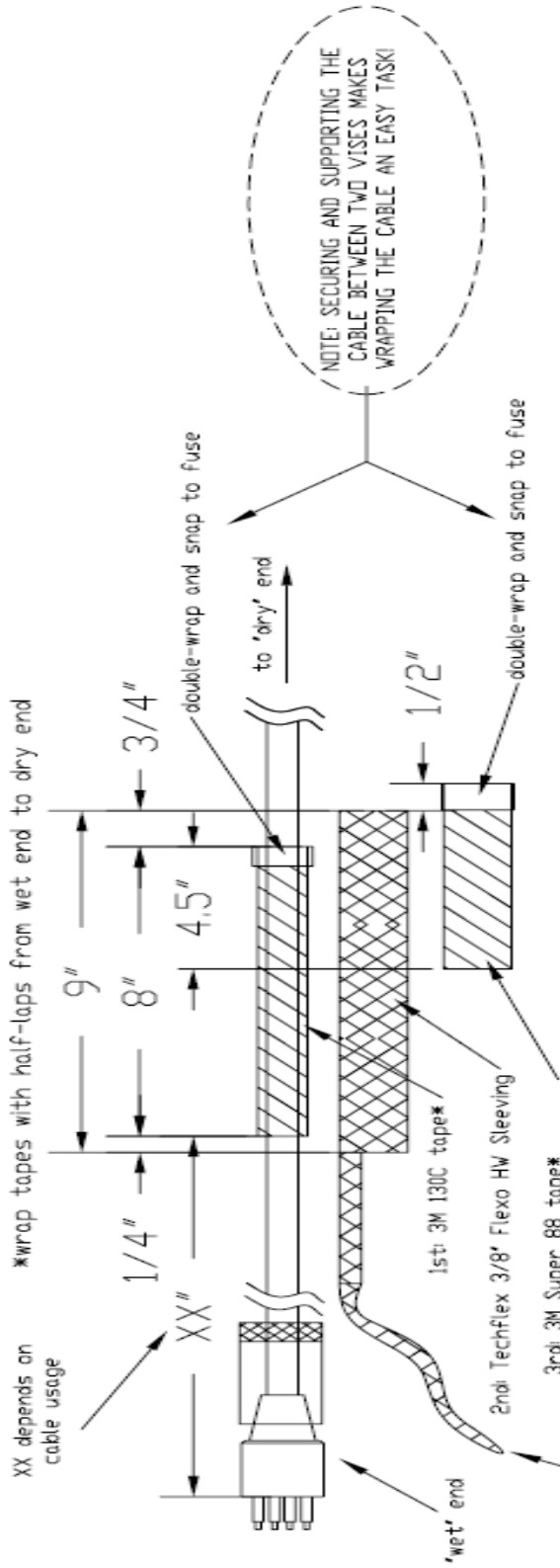
Step 11.b.



12. Secure the tag end by tightly wrapping with Super 88 tape and snapping it off so it self-fuses.

Step 12

13. Deploy and Enjoy!



4th: tie loose end of grip to shackle with 'uni-knot' with two wraps, secure tag end with 3M Super 88 tape

NOTE: AS OF SPRING 2009
 XX LENGTHS ARE:
 SUBDPS / C-DPS: XX = 39.25"
 PRR800/2600/2500: XX = 57.75"
 BIC/BIR/Q-SERIES: XX = 52.75"

