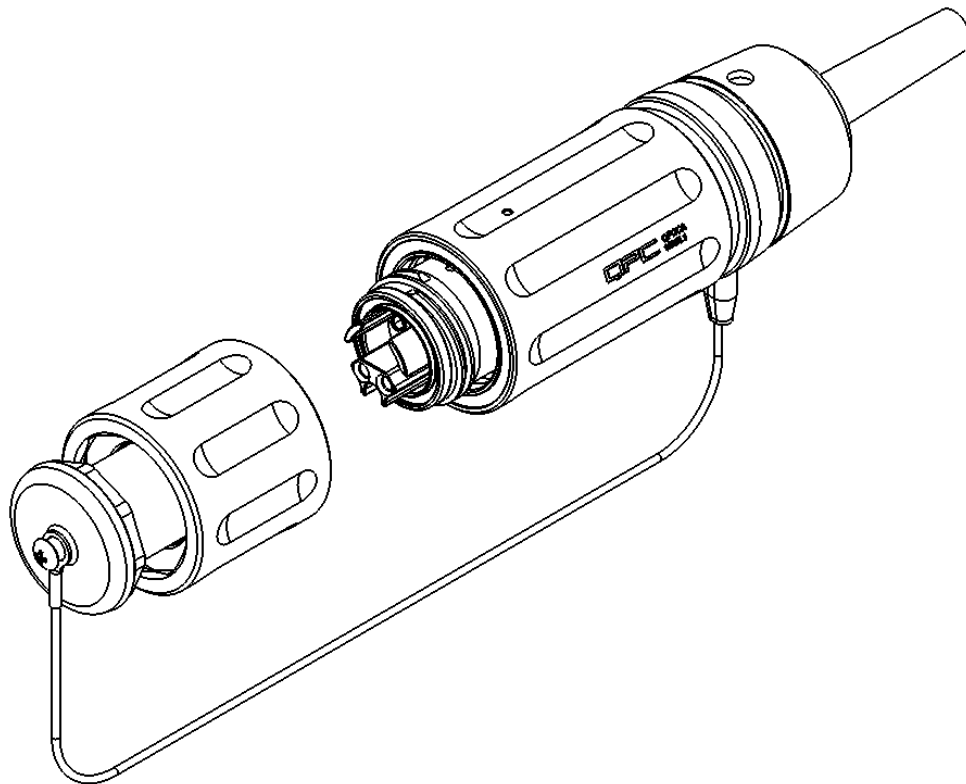


QFOCA PLUG ASSEMBLY INSTRUCTIONS



DOCUMENT:	AIQFP-01
REVISION:	10
REVISION DATE:	4/18/2019
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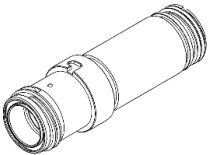
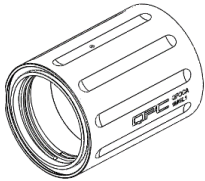
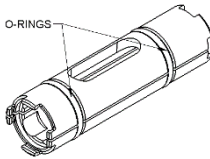
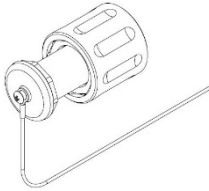
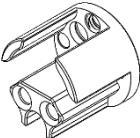
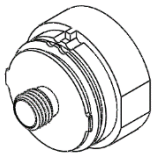

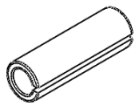

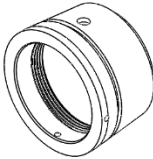
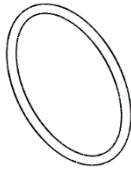
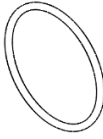
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SCOPE

This document will describe the procedure for termination and assembly for the QPC QFOCA Connector Plug. **This document describes both the 12 channel and the 4 channel systems. The images are for the 12-channel system**

COMPONENTS

The part numbers may include options determined by the required cable diameter, keying, and fiber type.

			
BODY, PLUG	COUPLING RING, PLUG	SPACER	DUST COVER
			
INSERT	STRAIN RELIEF	TERMINI (x4 or x 12)	ALIGNMENT SLEEVES (x2 or x6)
			
INSERT PLATE	BACKNUT	LARGE O-RING	O-RINGS FOR SPACER

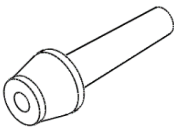

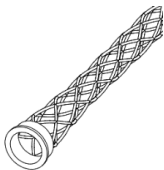

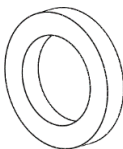
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OPTIONAL COMPONENTS

FOR 4-CHANNEL ASSEMBLIES			FOR 12-CHANNEL ASSEMBLIES	
				
BEND LIMITER	WASHER	CABLE GRIP	CABLE GRIP	SQUARE O-RINGS x2

TOOLS AND MATERIALS

FOR 12 CHANNEL QFOCA	FOR 4 CHANNEL QFOCA
PT-062 Miller Kevlar Scissors	PT-062 Miller Kevlar Scissors
PT-140 Spring Compression Tool	PT-140 Spring Compression Tool
PT-465 QFOCA C-Jaw	PT-465 QFOCA C-Jaw
PT-467 12 CH QFOCA Torque Fixture	PT-466 4 CH QFOCA Torque Fixture
PT-500 .05" (1.3 mm) Hex Screwdriver	PT-500 .05" (1.3 mm) Hex Screwdriver
PT-506 Dial Torque-Measuring Wrench	PT-506 Dial Torque-Measuring Wrench
PT-507 7/16" (11 mm) Crows Foot Wrench	PT-507 7/16" (11 mm) Crows Foot Wrench
PT-528 Cable Strippers	PT-528 Cable Strippers

TORQUE TABLE

QFOCA	Torque Value: Inch / Pounds		Torque Value: Newton Meters	
	4-Channel	12-Channel	4-Channel	12-Channel
Backnut	80	106	9.0	14.0
Set Screws	17	17	2.0	2.0
Strain Relief	97	97	11.0	11.0

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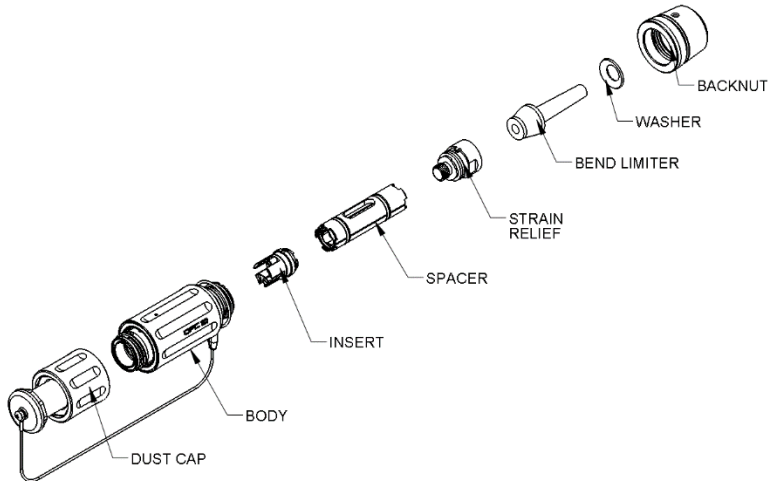
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CONNECTOR PREPARATION

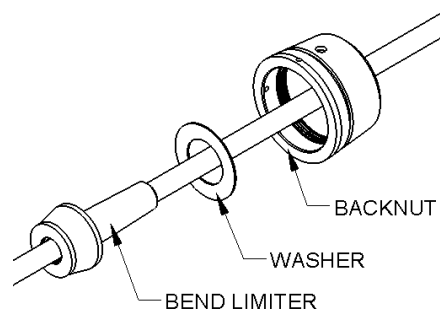
Remove parts from bag and set up in the following order.



CABLE PREPARATION

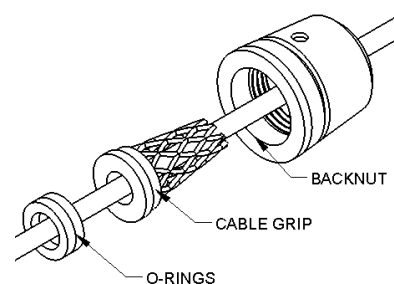
Slide parts over cable in the following order as seen in image to the right:

1. Backnut
2. Washer
3. Bend Limiter



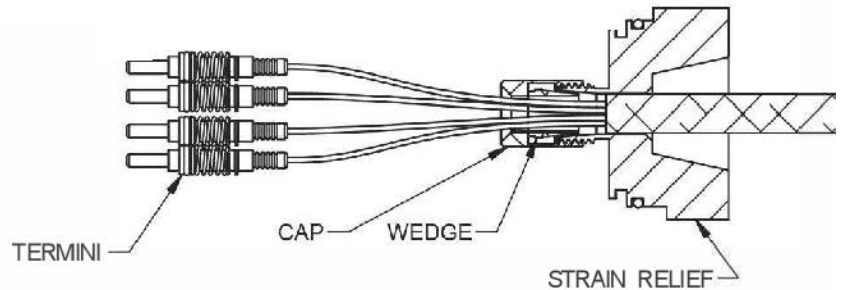
If using a Cable Grip configuration, slide parts over cable in the following order:

1. Backnut
2. Cable Grip
3. Square O-Rings (x2)



Strip the outer jacket of the cable approx. 3.90 inches. Strip inner jacket approximately 3.65 inches, leaving 0.25 inches. Slide the strain relief and secure over 0.25-inch inner jacket. Slide Wedge and Cap over the exposed fibers.

The Kevlar goes between the wedge and the Strain Relief Body. Press it into place and trim any extra Kevlar away. Put on the Cap and tighten according to the Torque Values in the above table.

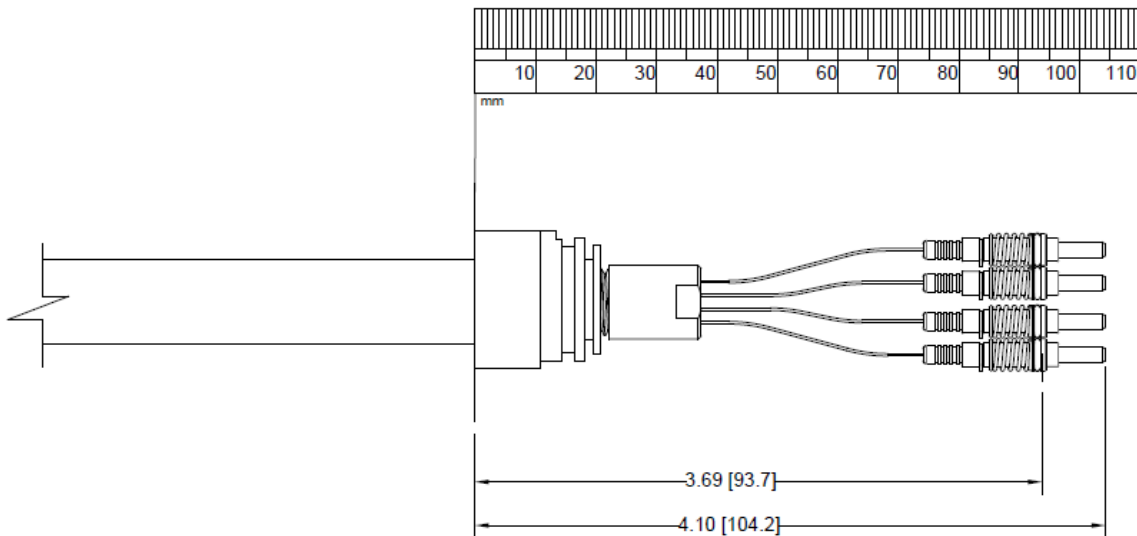


TERMINATE

Terminate and polish the fiber using the provided termini.

Stripping length diagrams for 4-Channel or 12-Channel (**NOT TO SCALE**)

4-Channel Diagram



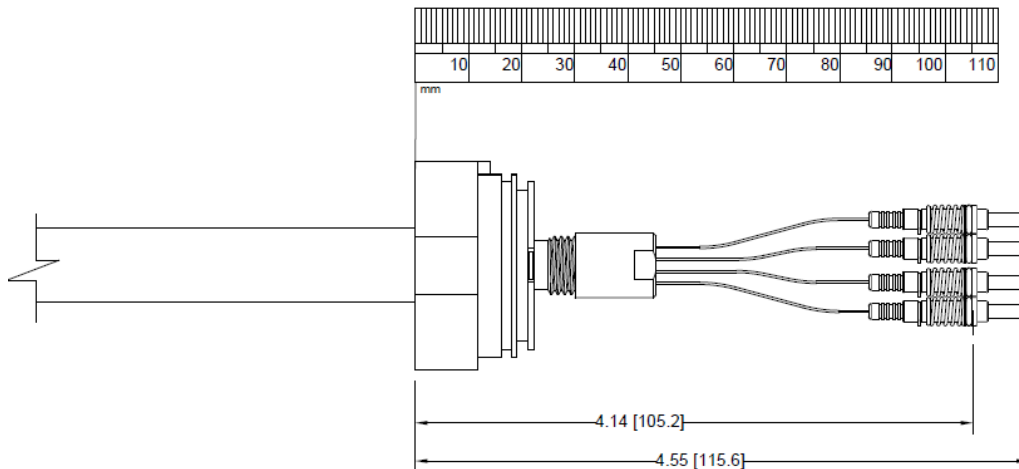
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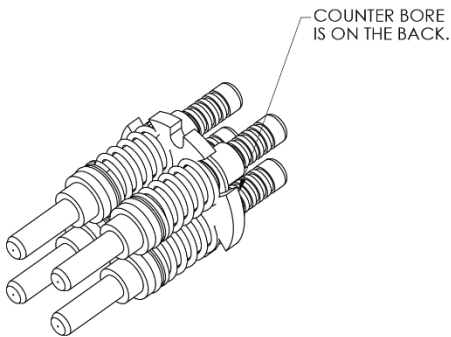
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12-Channel Diagram



POPULATE INSERT

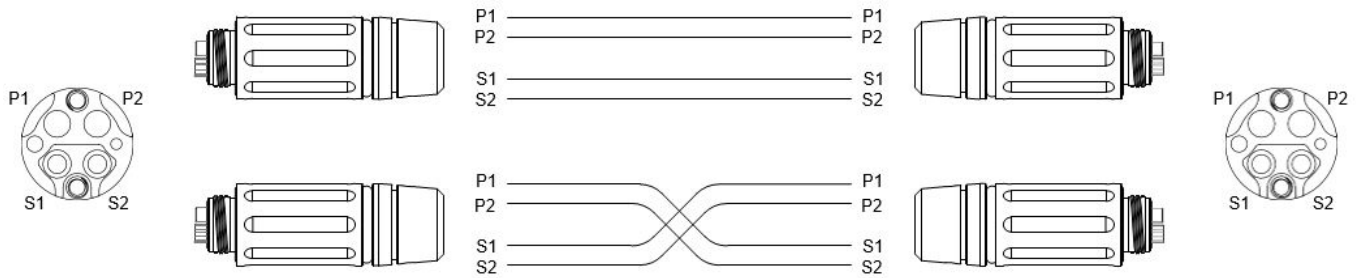
Populate the Insert according to the desired configuration.



Use the spring compression tool to set the termini onto the termini retainer plate for the 4-Channel QFOCA or the retainer plate halves for the 12-Channel. Refer to the channel layout on the cable drawing.

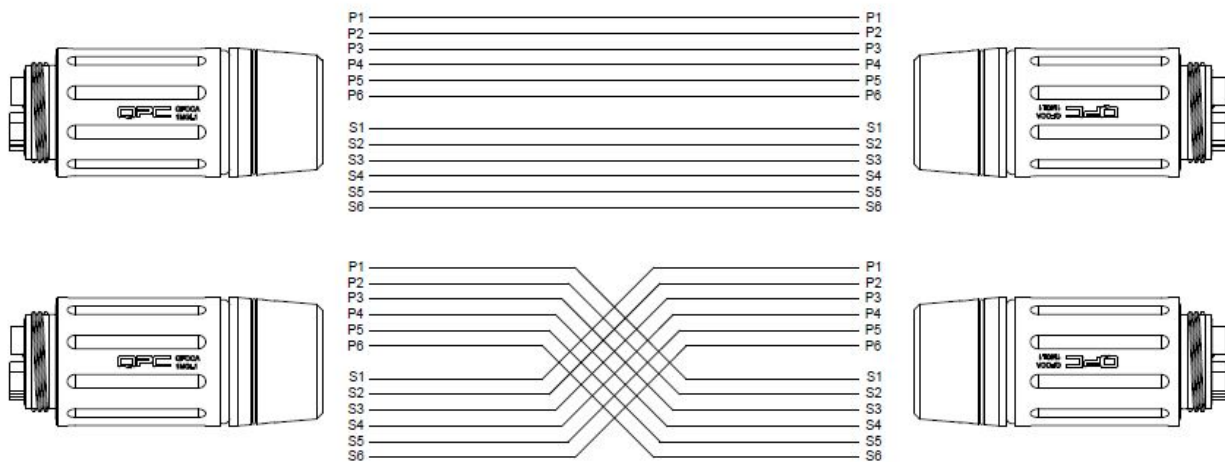
The counter bore holes on the termini retainer should be on the back (cable) side of the termini.

For 4-Channel Configurations

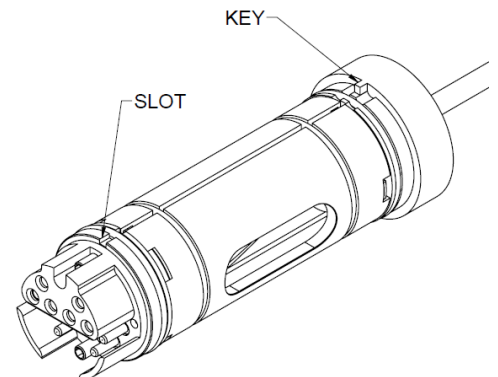


Straight configuration is defined as P1 to P1, S1 to S1. Crossed configuration is defined as P1 to S1. Twelve channel layout uses the same pattern.

For 12-Channel Configurations



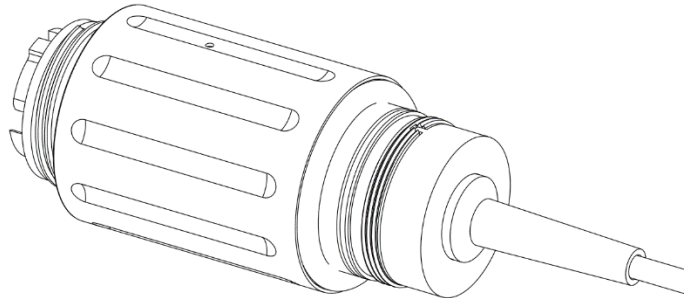
Put alignment sleeves onto the socket termini. Insert the termini retainer into the back of the insert. Attach the spacer shell. The key groove on the insert body must be properly oriented to the key slot on the strain relief as shown. Roll O-Rings over the insert cap and insert into the grooves on the spacer shells. This will hold the assembly together.



FINAL ASSEMBLY

Slide the bend limiter into position on the strain relief.

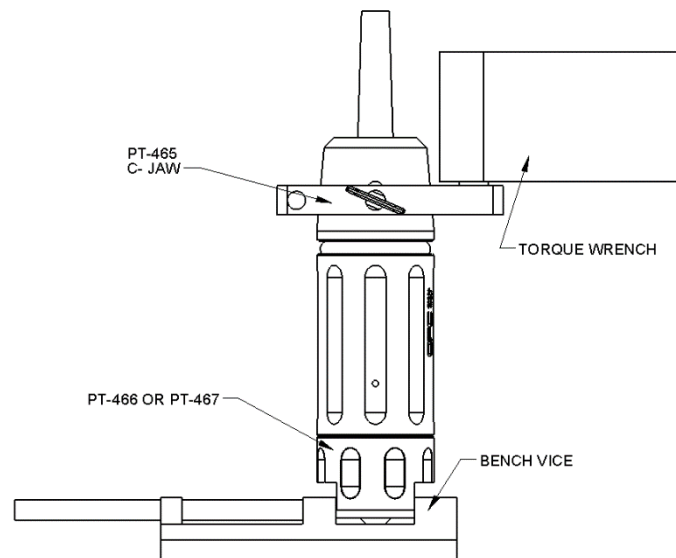
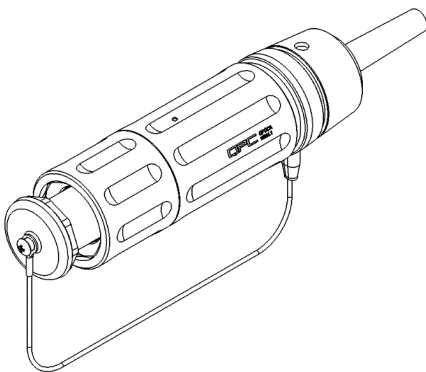
Slide the large O-ring on the back of the connector body. Insert the entire termini assembly into the QFOCA body. The insert cap should protrude $\frac{1}{4}$ inch past the front of the connector body. If it does not, pull the assembly down slightly until a dimple on the inside of the body is visible. Rotate the assembly until it is aligned to the dimple and re-insert it.



Slide the Nylon washer, O-ring and Backnut into position. Mount the plug in a bench vice using PT-466 for 4-Channel or PT-467 for 12-Channel. Torque the Backnut according to the values in the above table using a Dial Torque Measuring Wrench and PT-465 C-Jaw tightening tool.

NOTE: With a 12-Channel Plug, tighten the 2 set screws on the Backnut after Torqueing.

Completed Assembly



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