

FIBER GRIP SMA CONNECTOR ASSEMBLY INSTRUCTIONS

949-1591

Amphenol

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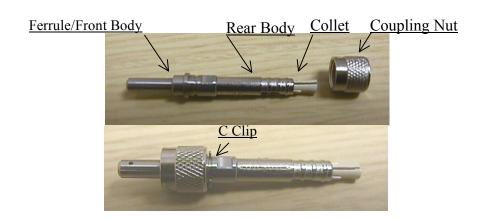
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Important: Connector to Fiber/Buffer Verification

Fiber Grip SMA Part Number: 905-40XXX-XXXX

Check front of bag for connector part number.
905-40XXX-XXXX Highlighted numbers are the connector fiber hole sizes
905-40XXX-XXXX Highlighted digits are the optical fiber buffer sizes

Fiber Grip SMA Connector Parts



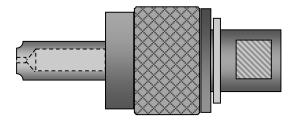
Strain Relief: Medical Grade Available in Black, Red and White

Fiber Grip Materials List: All Materials meet FDA ClassVI

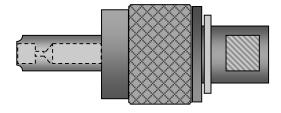
| | Description | Material | Plating |
|---|---------------------------|-------------------------|---------|
| 1 | Front body/Ferrule | 303 Stainless Steel | N/A |
| 2 | Coupling Nut | Brass | Nickel |
| | (Option | al) Stainless Steel | N/A |
| 3 | Rear Body | Zinc Die Cast | Nickel |
| 4 | Collet | Liquid Crystal Polymer | N/A |
| 5 | Dust Cap/Lanyard (Optiona | Santoprene FDA Class VI | |
| 6 | C Clip | Beryllium Copper (Bu) | Nickel |
| 7 | Strain Relief: | Santoprene FDA Class VI | |

Fiber Grip types:

905-40XXX- SMA Fiber Grip with Standard SMA Interface



905-20XXX- SMA Damage resistant Ferrule: Counterbored Ferrule End face



Fiber Grip Tools

Tools to be used for termination are:

| Description | Part Number | Manufacturer | | | | |
|------------------------------|--------------------------|-------------------|--|--|--|--|
| Fiber Grip Assembly Tool | 927-1696 | Amphenol | | | | |
| Scale | | | | | | |
| Permanent Marker | | | | | | |
| Buffer Stripper (Kit) | Micro-Strip MS-TK-1 | Micro Electronics | | | | |
| Buffer Stripper (Individual) | Micro-Strip MS-1-XXX-XXX | Micro Electronics | | | | |
| Wrench 4mm ???? | | | | | | |
| Fiber Cutter | Tec-Cut N-59 | Techni-Tool | | | | |
| "C" Clip Assembly Tool | P/N CR018 | Truarc | | | | |

1. Fiber Grip Assembly Tool (927-1969)



2. Fiber Cutter (Tec-Cut N-59)



2. Fiber Strip Tools:

Micro-Strip: Are used in the removal of ETFE, Nylon, PVC, Silicone, and FEP optical fiber buffers. Consult your fiber manufacturer for the proper blade and bushing sizes.





*Note: Not for use in the removal of polyimide coatings

Micro-Strip Tools can be purchased from our distributors:

Fiber Optic Center 23 Center St. New Bedford, MA 02740 800-473-4237 www.focenter.com

The SMA FiberGrip Connector does not require the use of any bonding material to terminate.

1.0 Fiber Grip Termination Procedure

1.1. <u>Coupling Nut Assembly:</u> Insert the coupling nut over the rear of the SMA connector, large hole first. With the coupling nut pushed as far as it can go, take the retaining ring and press it onto the groove around the connector body immediately next to the nut to hold it in place.

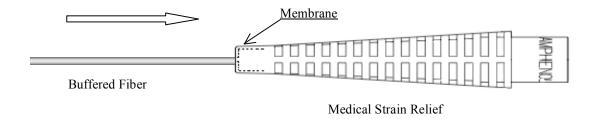


1.2. <u>Cut Fiber to Length:</u> Measure fiber and cut to length using Fiber Cutter (Tec-Cut N-59)

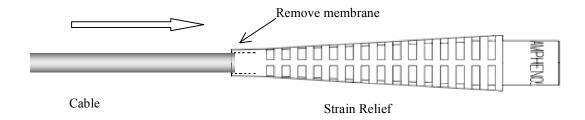


1.3 Strain Relief:

1.3.1 (Fiber) Assemble boot onto fiber by Inserting fiber through membrane at rear. Part number: 905-5195 (Optional)



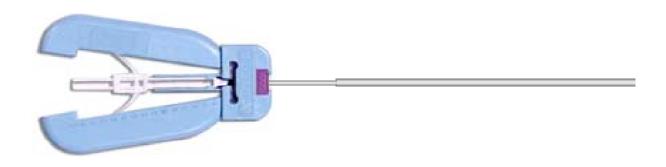
1.3.2 (Cable) Assemble boot onto cable by inserting at rear of rear. For use on cable diameters up to 3.0mm (.118"). Part Number 905-5217



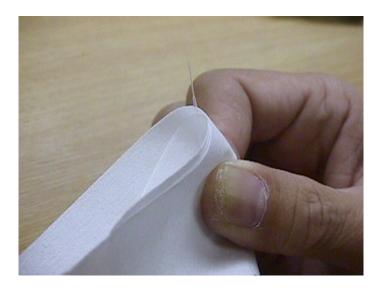
1.4 <u>Mark Fiber:</u> On the end to be terminated, measure back 1.75 & 2.75 inches making marks with permanent ink on buffer at both points.



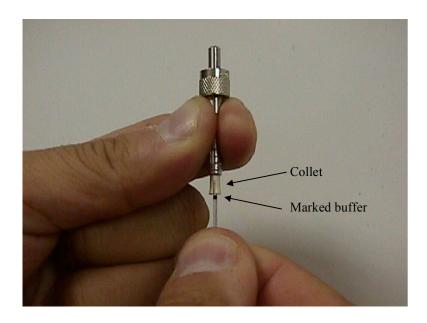
1.5 <u>Strip Buffer:</u> Strip 1.75 inches of buffer from the fiber using a Micro-Strip tool with properly matched bushing and blades. Be very careful not to damage or scratch the sides of the fiber. Please refer to fiber manufacturer's recommendations for the proper blade and bushing for MicroStrip tool.



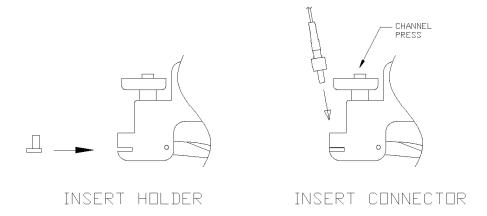
1.6 <u>Clean Fiber</u>: Clean the end to be terminated with a soft cloth and isopropyl alcohol, while being careful not to damage the exposed fiber.



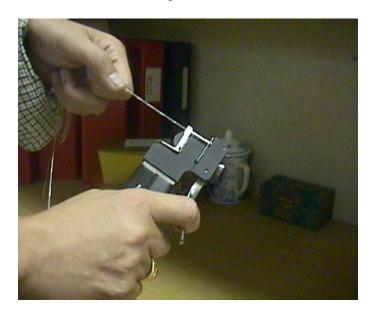
1.7 <u>Insert Fiber:</u> Carefully insert the fiber into the rear of the connector aligning the marked buffer with the rear of the collet. Do not push too hard because this may cause the fiber to break within the connector.



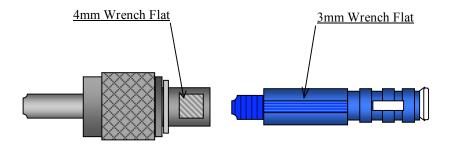
- 1.8 <u>Collet Insertion:</u> Use the fiber grip tool to press the collets in place and hold the fiber.
 - 1.8.1 If it is not already in place, insert the connector holder in the front of the FiberGrip tool by sliding it into the front slot. Insert the connector into the connector holder of the FiberGrip tool per the figure below. Pull the fiber into the slot in the channel press to ensure that it is not damaged while pressing the collets into place.



1.8.2 Pull firmly and completely on the trigger of the Fiber-Grip assembly tool to press down on the collets and terminate the connector. Take care to make sure that the fiber does not pull out from the connector while doing this.



- 1.9 <u>Final Assembly:</u> The connector is now ready for cleaving, polishing or any other subsequent processing.
- 1.10 <u>Fiber Processing:</u> Due to the various processes used in fiber end face fining, Amphenol can not document all
- 2.0 <u>Connector Repair:</u> Incase of a bad cleave or polish of the fiber end face, the ferrule/coupling nut assembly can be removed and the rear collet assembly can be replaced. Using 4mm open end wrenches, insert them on the wrench flats and disassemble.



Ferrule/Coupling Nut Assembly

Rear Collet Assembly

| REVISIONS | | | | | | |
|-----------|---------------|------|------|----------|--|--|
| REV. | DESCRIPTION | DATE | ECO# | APPROVED | | |
| Α | New Procedure | | | | | |