

Quick Guide for SMA Connector Mounting Procedures

rev.B

STEP # 1

- For Cable mounting - Slide on **strain relief boot & Kevlar crimp sleeve.**
OR
- For Buffer Fiber mounting - Slide **the strain relief boot** in for the 900 μ fiber and for 250 μ fiber –slide **both the plastic tubing and the strain relief boot in.**

STEP # 2

(Cable/Buffer Stripping)STEP #7

- **For cable mounting, prior to Buffer stripping -**
 - a. strip cable jacket = **39 mm (~1 1/2")**
 - b. Cut Kevlar strength members to **14 mm (~ 1/2" in length.**
 - c. Strip buffer = **3 to 5 mm (~1/8"min. to 3/16" max)**
- **For 900 μ fiber, simply strip buffer fiber.**
- **Clean any residue on fiber to facilitate next threading step**

STEP # 3

(Threading of fiber)

- Place the rear end of the connector onto the Crimp Tool for holding purpose (**without actual crimping at this time**).
- Thread fiber through connector **as far as it will go** (gently move the connector/tool to facilitate threading of the fiber).

STEP # 4

(Buffer crimping)

Crimp the back of the connector to the buffer using appropriate die hole marked for 900 μ , or 250 μ buffer with the plastic tubing.

STEP # 5

(Impact Mounting)

- Using the Hand tool, place the **SMA insert** onto the rails (use a screwdriver to secure the Insert).
Don't overscrew, it'll bend the 2 rods and make the Alignment block hard to slide.
- Lay the connector snugly on the V-groove of the insert by **placing the tail end of the connector first.**
- Slide the alignment block forward to the connector tip. (Sliding should be easy if rods are not bent.)
- Hold down the handle without actual impacting to help bring alignment block forward next to connector tip.
- **Test proper alignment by sliding the alignment block slightly in & out of the connector tip by hand. It should be easily done.**
- Finally, do actual Impact Mounting by squeezing the handle hard. (A "click" sound will be heard.)

STEP # 6

(Hand Cleaving)

Place the scribe blade parallel to the surface of the connector tip and cleave at the very base of the fiber. Then bend the fiber with the blade for a clean break-off.

Caution! Dispose all fibers safely. Glass fibers are harmful to your health.

(For Kevlar crimping only)

Pull Kevlar members and Kevlar crimp sleeve up towards the connector.

STEP # 8

(For Kevlar crimping only)

Using the Kevlar crimp tool, crimp Kevlar crimp sleeve 2x using the appropriate SMA **die hole. 1x over the connector end and 1x over the cable end.**

STEP # 9

Slide strain relief boot over the back of the connector at the end of the steps.

STEP # 10

(Hand polishing)

- First remove any rough edges by **hand polish in the air with 12 μ paper 2 to 3+ times.**
- **Using an appropriate polishing puck, polish fiber surface with a 3 μ paper about 12 times. (Light pressure first for about 2 seconds and then press harder.)**
- Finish polish gently with **0.3 μ paper** for another 12 times.

Use a figure 8 motion to cover a diameter of 4" for all polishing for best results. Center core should be mirror-finished. Ignore minor scratches outside the core area. (Repolish more if necessary to achieve desirable result.) Polish is fast because no epoxy.

DO NOT overpolish: too much polishing will remove the impacted connector tip and fiber will loosen up.

Additional Tips:

- * **STEP # 1** – it is recommended to use both small and large strain relief boots for buffer fiber mounting for additional support.
- * **STEP # 2** – make sure the transparent buffer is completely stripped to avoid threading problem.
- * **STEP # 4 & 8** – make sure to squeeze the handles of the Crimp tool to close completely for full force.
- * **STEP # 5** – Do Not impact driver cone without connector in it. It will damage the empty cone.
- * **STEP # 5** – Clean driver cone frequently for any fiber debris For proper performance.

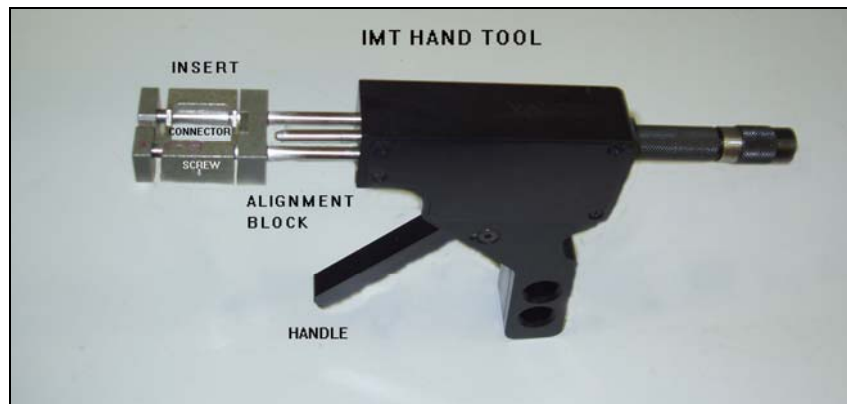
OPERATIONAL TIPS

DO:

1. Always handle fiber carefully and dispose of any debris in a safe manner. Glass fiber can cost serious health problems.
2. It is important to **check driver cone frequently** for any broken fiber debris inside. Clean as necessary with brush. Debris will cause problem for impact mounting.
3. **Strip buffer about 3mm to 5mm max.** in length. Too much bare fiber protruding at the front tip may cause breakage in the cone.
4. Make sure the clear, transparent buffer coating is indeed stripped by firmly stripping the fiber buffer through the Micro-Strip stripper. **Incomplete stripping of the buffer coating will not allow fiber to be inserted through the connector.** Clean all residue from the stripped fiber for easier threading through the connector.
5. **To test perfect alignment of the connector, alignment block and the impact cone:**
 - a. **slide the alignment block forward to the connector (sliding should be easy if rods are not bent by overscrewing when installing the insert).**
 - b. **Hold down the handle without actual impacting to bring the alignment block forward next to the connector tip.**
 - c. **Alignment block should be able to slide in and out of the connector tip easily when tested by hand.**
6. Crimping should be done in a single smooth motion. Jerking and irregular motion may result in misalignment of components and/or broken fibers.
7. Squeeze the handles of the crimping tool till they COMPLETELY close. (This may go beyond the ratchet release) to ensure the crimping action has the maximum force.
8. It is recommended to **hand polish with a 12 μ ALO lapping paper in the AIR 2 to 3 times to remove any rough edges** prior to polish with the polishing tool.
9. **Always start polishing GENTLY, then increase pressure** gradually with **3 μ ALO** paper. Too much pressure at the start may break the fiber. Finish gently with **0.3 μ CA** paper. Center core of the fiber should have mirror finish. Any scratches outside the core can be ignored. Achieve fast polish - no epoxy to remove.

DON'T:

- a. **DO NOT over polish. It will remove the impacted area and the fiber will become loose. Total polishing should take no more than 20 seconds. Polishing is fast because no need to remove epoxy** (Count no more than 12 times for each polishing paper.)
- b. DO NOT interchange driver cone with other tool kits. Calibration of the kit will be affected.
- c. DO NOT fire the punch with empty cone. This may damage the cone.
- d. DO NOT adjust the impact mount power of the impact tool. The power adjustment has been preset.



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