



Fiber Optic Cleaver

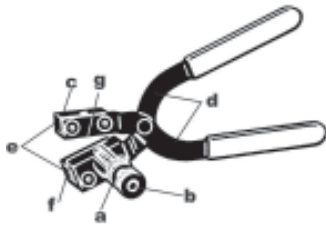
Instructions

Please read all of the operating instructions before attempting to cleave fiber optic cable with the Miller Fiber Optic Cleaver. Improper use of this tool can result in damage to the tool itself and the cable being cleaved. Misuse can also result in injury to the operator.

Safety Notes

- Because glass optical fibers are easily broken, they can pose a hazard to your eyes.
We strongly recommend that safety glasses or goggles be worn when working with optical fibers.
- Because of their small diameters and smooth surface, scrap pieces of optical fiber can pose a threat to the skin in the form of puncture wounds.
We strongly recommend that all pieces of scrap optical fiber be placed in a suitable container that prevents accidental exposure to the fiber pieces. We further recommend that this container be later sealed and properly disposed of.
- Because the light sources used with optical fibers operate at wavelengths invisible to the human eyes -
We strongly recommend that you do not view the open-ended fibers that are connected to an active light source. Failure to observe this precaution can result in serious damage to the eye, and possibly blindness.

Fiber Optic Cleaver



- a. Locking Nut
- b. Fiber Guide Tube
- c. Block
- d. Handles
- e. Jaws
- f. Fiber Grip Pads
- g. Cleving Blade

Dimensions

Length: 5.125" (12.9 cm)
Width: 1.75" (4.5 cm)
Height/Thickness: 1.5" (4.0 cm)

Temperature Range

Cleaver performs best at 72° F (21° C)

Cleave Length

Adjustable from 5 mm to 20 mm

Compatible Fibers

- Glass fibers with 125 micron nominal cladding diameters
- Accommodates fibers in coated as well as cable form

WARRANTY: The Ripley Company warrants that our line of tools are free of defect and fully operable at the time of shipment. The warranty is limited to the repair or replacement of any product which proves to be defective in material or workmanship, under normal use and service.



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Instructions for Use

1. Slightly loosen the locking nut (a) on the fiber guide tube (b).
2. Turn the fiber guide tube into or out of the block (c) until the tapered end aligns itself with the cleave length desired.
3. Secure the locking nut to prevent the fiber guide tube from moving.
4. Using the correct size NO-NIK® Fiber Optic Stripper, strip about 1.5" (4.0 cm) of coating from the fiber to the end to be cleaved.
5. Carefully wipe the bare fiber one time with a presaturated alcohol swipe.
6. With the handles (d) of the tool separated to open the jaws (e) fully, carefully insert the bare fiber into the fiber guide tube until it stops. (The fiber coating will butt against the inside taper of the tube.)
7. While ensuring that the fiber is still fully inserted into the fiber guide tube, gently close the handles together. Do not push the fiber into the tool when closing handles. The upper and lower fiber grip pads (f) will trap the fiber between them, and the cleaving blade (g) will induce a score mark in the cladding of the fiber.

NOTE: It is NOT necessary to squeeze the handles together with a lot of force.

8. Next, gently tug the coated fiber about 200 mm (3") from where it enters the fiber guide tube. You should feel the fiber "snap." When that happens, continue to pull it out of the tool. The CC125 cleaver will hold the scrap end of fiber until it can be safely disposed of. If desired, gently touch the cleaved end of the fiber to a piece of cellophane tape (NOT masking tape) to remove any particles of glass from the cleaved endface. Proceed with the assembly of your splice or connector. Discard the scrap piece of glass remaining in the tool in a suitable receptacle, such as the Miller Fiber-Safe trash can.

Troubleshooting

Tool

Fiber Cannot Be Inserted

If the fiber cannot be inserted into the fiber guide tube, unscrew the guide tube and remove it from the tool and check for an obstruction in the guide hole in the tapered end of the tube.

If an obstruction is present, gently tap the guide tube on a smooth, flat surface to dislodge the obstruction. CAUTION: Always wear Safety Glasses when working with fiber.

If no obstruction is observed, check that the fiber coating has been completely removed. If the coating still remains on the fiber, restrip it. If no coating is observed on the fiber, check that the fiber cladding diameter is within the performance range on the tool.

Fiber Does Not Cleave

If the fiber does not cleave after scoring and tugging, strip approximately 1/4 (.25) inch more of the coating from the fiber. Then clean the fiber and try to cleave again. If the fiber again does not cleave, verify that the fiber cladding diameter is within the performance range of the tool. If the fiber is within the range, return the tool for factory adjustment.

Fiber Pulls Out Of Tool

If the fiber pulls out of the tool when tugged on, gently clean the tops of the rubber cleaving and fiber grip pads with a presaturated alcohol swipe. This will remove any traces of cable grease, index matching gel, etc. from these surfaces.

Mechanical Splices (in order of likelihood)

High Insertion Loss

Over 5.0 dB

- Broken fiber in the splice. Replace splice.
- Broken fiber near the splice. Locate and remove.
- Fibers not touching within the splice. Re-insert.

Over 1.0 dB

- Dirt or glass particles on the fiber endfaces. Remove the fibers from the splice and clean them.
- Fibers not touching within the splice. Re-insert.
- Bad cleave on one or both fibers. Optimize if possible.

Over 0.3 dB

- Poor cleave quality. Re-cleave.
- Irregularities in fiber. Optimize if possible.