

Manual

Fiber Optic Cutting Tool



Model
Release

81600
1.0

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Cutting tool for plastic fiber optics, Model 81600

The 81600 cutting tool enables fast and precise trimming of duplex POF cables size 4.4 x 2.2 mm without the necessity of grinding or polishing the resulting cut surfaces.

Background information

For short runs it is generally sufficient to trim the plastic fiber optic cable using simple tools such as a sharp knife. In these cases the additional attenuation caused by a less than ideal cut is non-critical for the stability of the data transmission. The light intensity at the receiving location is almost always sufficient for a reliable connection regardless of cut-related losses.

But when you begin to approach the maximum permissible distance, the cut quality is important in terms of the achievable distance and the stability of the connection, and can determine whether a connection is feasible or not. A perfect cut can give you up to an additional 20 meters of distance in borderline conditions.

The decisive criterion for the quality of the cut is a flat cut at right angles to the cable axis, so that as little light as possible is lost through scatter or reflection. Such cuts can be achieved using the described cutting tool without requiring additional grinding or polishing of the cut surface.

Important: This tool is not suitable for trimming glass fiber cables. Any attempt to use the tool for cutting glass fiber media will permanently damage the cutting element.



Preparing the cutter

The plier is shipped from the factory with a safety lock which must be removed before using the tool.

Cutting fiber optic cable

Open the plier by pressing the two grips on the tool together and then releasing them.

Place the duplex fiber optic cable into the holder provided in the clamping block of the plier:



Close the plier by pressing the two grips together until the fiber optic cable is securely held in the clamping block. While doing this take care not to squeeze the grips until they touch, since this will release the plier again.

Then press the cutting wheel against the fiber optic cable by squeezing the trigger-like grip towards you using your index finger.



A firm pull with the index finger quickly and cleanly cuts the fiber optic cable. To remove the cable from the clamping block, open the plier.

With each cutting operation the cutting wheel rotates forward by a slight angle, thus significantly increasing the service life of the tool.

Stripping fiber optic cables

In addition to the cutting function, the plier is also capable of stripping duplex fiber optic cable. This function is now required however when using fiber optic cable together with W&T fiber optic interfaces.

To strip the cable, insert it into the stripping holder of the clamping block and pull the associated lever up to expose the inner cable section.



Replacing the cutter

In order to ensure consistent cutting quality, the cutter monitors the number of cuts made and indicates the end of the useful life of the cutting wheel in a small window on the side.

When the life expectancy is reached, which occurs after 1260 cutting operations, the entire safety cutter needs to be replaced.

The safety cutter including cutting wheel is user replaceable as a self-contained unit and can be ordered from W&T under Article No. 81602.



Technical Data

Functions:	Cutting and stripping fiber optic cables
Compatible media:	2.2 mm Simplex- and 4.4 x 2.2 mm Duplex fibers with 980um fiber core
Dimensions:	200 mm x 80 mm x 50 mm
Weight:	520 g
Included:	Fiber optic cutting tool Allen key for releasing transport safety lock

