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sales@testersandtools.com

Tel: 602-795-4033, Fax: 602-795-4624

# Beaming Optical Length Tester

SKU: BOLT-NL

Optical Length Tester

## Features

- Measures the length of both single-mode and multimode fiber with accuracy of  $\pm 2.5$  meters
- Generates a pulsed signal for use with fiber identifiers
- Easy-to-read bright red 7-segment LED display
- 10 hours continuous use on one 9v battery
- Low battery indicator
- Handheld
- Lightweight

## Key Specifications

<b>Measurement Range</b>	up to 25 kilometers
<b>Accuracy</b>	$\pm 2.5$ meters
<b>Center Wavelength</b>	1310nm
<b>Resolution</b>	up to 0.001 kilometers (1 meter)
<b>Dimensions</b>	4.94 x 2.75 x 1.28 in
<b>Weight</b>	6 ounces



ASSEMBLED IN USA

**N.I.S.T. Traceable**

Product manuals come in PDF format on CD. Adobe Acrobat Reader™ is required to view these documents.

Carrying cases and patch cables are available for an additional charge. Call 262-473-0643 for more information.



## Applications

BOLT stands for Beaming Optical Length Tester, and offers a unique, low-cost alternative for users who need to measure the length of optical fibers.

Fiber installations are increasingly required to have fiber length measurements to comply with bid requirements. Rather than purchase certification test sets that can cost thousands of dollars, the BOLT-NL can be added to an installer's existing fiber test kit.

These length testers use a "round-robin" method of measuring fiber length. This is accomplished by looping back two fibers at one end of the fiber run with a patch cord. The round trip time that the light takes to travel through both fibers is converted to length in kilometers, then divided by two to show the length of the fiber cable. There is no need to measure the length of all the fibers; the length measurement can be applied to all fibers in the cable. This method of length testing provides accurate measurements, and saves time and money.

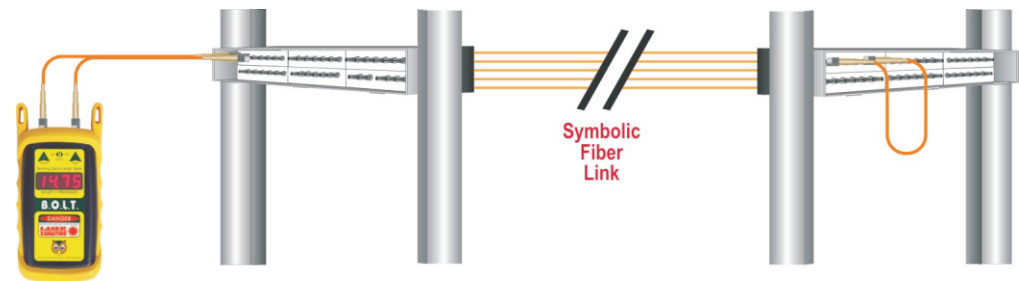
Measuring fiber by the jacket is an accepted method of measurement; however, there are many scenarios where this may not be valid. Length markings may be hard to reach if they are already terminated in a patch panel. Fiber links may also go through multiple cross-connects or have splices in the middle, thereby making jacket markings invalid. Optical measurement of fiber produces accurate results without the need for jacket markings.

Optical measurement also saves time by eliminating the need to estimate the length of the fiber run with a measuring wheel. This method is especially troublesome and inaccurate in networks that traverse walls, are in a star topology, or contain riser cables.

The BOLT uses a 1310nm infrared laser that can measure fiber links of up to 25 kilometers, is accurate to within  $\pm 2.5$  meters, and pulsing mode allows for easy fiber location when used with a fiber identifier.

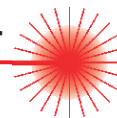
**NOTE: To avoid confusion, the BOLT-NL is NOT designed to measure distance to a fault like an OTDR.**

**The BOLT-NL is designed to measure the end-to-end length of a fiber cable. A pair of terminated fibers, looped back at the far end of the cable, are required for end-to-end fiber cable length measurement (see diagram below).**



**O.W.L.** MANUFACTURER OF QUALITY OPTICAL FIBER TEST EQUIPMENT

**OPTICAL WAVELENGTH LABORATORIES™**



Optical Wavelength Laboratories (OWL)  
N9623 West US Hwy 12  
Whitewater, WI 53190  
Phone (262)473-0643 Fax: (262)473-8737  
<http://owl-inc.com>