

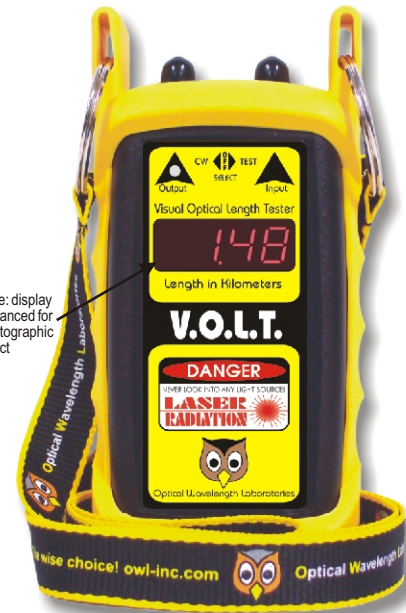
Optical Length Testers

Visual Optical Length Tester (VOLT) Description

The VOLT uses a visible laser that can measure fiber links of up to 1.5 kilometers, and is accurate to within ± 2.5 meters. In addition to length testing, the VOLT's high-intensity laser permits it to do double duty as a visual fault locator, and a pulsing mode allows for easy visual fiber identification.

Each unit comes with a protective rubber boot, carrying strap, 9-volt battery, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

For more information about OWL optical length testing technology, see page 14.



Note: display enhanced for photographic effect

Specifications

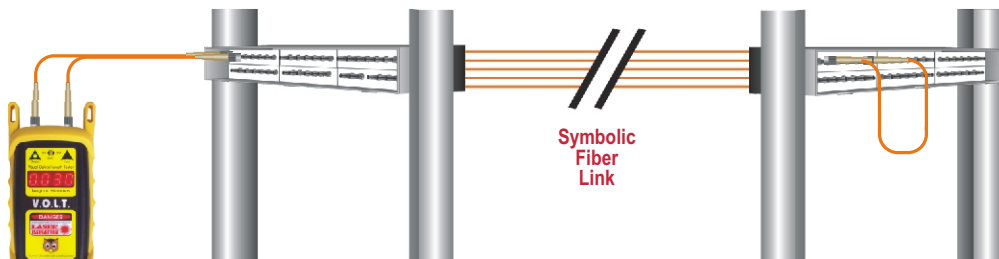
Range	up to 1.5 km
Accuracy	± 2.5 m (7 feet)
Resolution	0.001 km (1 meter)
Other Function	Doubles as a Visual Fault Locator (VFL)

Ordering Info

VOLT	Visual Optical Length Tester (red laser)	395.00
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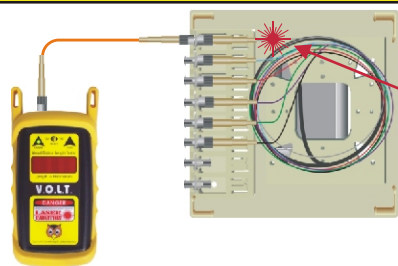
Application #1: Fiber Length Measurement

The VOLT is designed to measure the length of optical fiber links up to 1.5km, and is accurate to ± 2.5 meters! The VOLT uses a "round-robin" method of measuring fiber length. This is accomplished by looping back two fibers at one end of the fiber run. The round trip time that the light takes to travel through the 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. The VOLT can also be used to verify the amount of fiber on a spool prior to installation simply by connecting to the ends of the spool and multiplying the displayed fiber length by two.



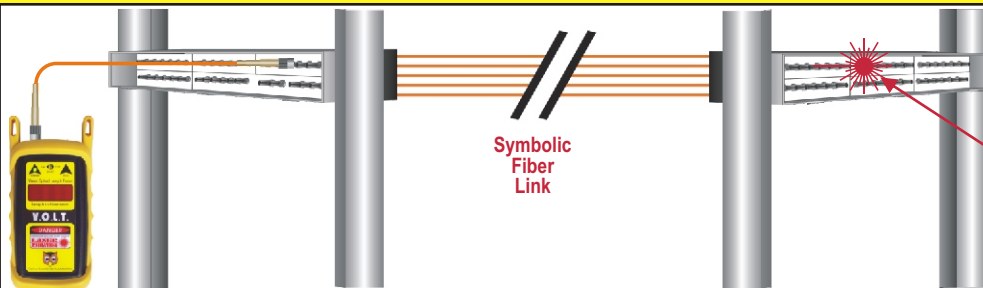
Note: the VOLT is not an OTDR-like device. It does not measure distance to a fault. It is designed to measure the total length of a fiber link based on a two-fiber loopback method.

Application #2: Visual Fault Location



The VOLT can also be used as a troubleshooting tool to determine if there are breaks, micro-bends, or any other anomalies causing excessive loss within the first few feet of the fiber under test located in the splice tray. The laser diode in the VOLT injects high-intensity red laser light into the near-end connector. If this light encounters any anomalies, such as a break or a micro-bend, the light is deflected into the fiber jacket, producing a red glow at the point of the anomaly. Some optical fiber jackets are colored so that it is difficult to see red light shining through, so it is recommended to keep the room light at a minimum when using the VOLT for visual fault location.

Application #3: Port Identification



The VOLT can help take the guesswork out of identifying ports in a fiber patch panel or checking polarity of a duplex connector. Connect the VOLT to one end of a fiber link, and the high-intensity, precision-coupled red laser diode will allow the user to visually identify the port by the presence of a red glow emitting from the connector on the other end. The VOLT allows for visual port identification of fiber optic links up to 5 kilometers (3.1 miles) away!