

# TFS-FS1K500 Series

## Optical Leakage Detector Kit

- Identify Fibers up to 300 Kilometers
- Long Distance and Local Applications
- Pinpoint Faults to Within Inches with Audio / Visual Leak Indication
- SOURCE 1500 nm Operation with SC, FC, or ST Style Ports at 2 kHz Modulation
- Temperature Stabilized Output
- Rugged Construction
- Long Battery Life with Quick-Charge Mode



(Patent Pending)

### Overview

The TFS-FS1K500™ Series Optical Leakage Detector Kits are designed to locate energy leaks in fiberoptic systems due to splice loss, connector loss, breakage, or bending and to identify fibers over long distances. The kits are available in three different variations and are all housed in a rugged waterproof carrying case.

Each kit includes the TFS-FS1™ Optical Leakage Detector with wide band IR filter (1280-1620 nm), TFS-TSA™ Aerial Lens & Scope Kit and your choice of either a light source, tracer source.

### TFS-FS1 Optical Leakage Detector

This optical leakage detector is the most sensitive fiber light finding instruments on the market today. By simply sweeping over a fiber, the leak detector will give an audio and visual indication whenever it encounters a light loss point.

### TFS-TSA Aerial Lens & Scope Kit

This kit is used to identify aerial fiber breaks from the ground. The complete kit includes the aerial lens, red-dot scope, and narrow band IR filter (1550 nm).

### TFS-201 Optical Light Source

Trilithic's new TFS-201 Optical Light Source allows simultaneous operation of both outputs or individual operation with either CW, 30 Hz, 500 Hz, or 2 kHz modulation for use with leak detectors or fiber identifiers. The optical light source operates at 1310 nm or 1550 nm with ST, SC & FC adapters.

### Optical Tracer Sources

The TFS-290 Series of tracer sources features a either a high power +5 dBm or very high power +15 dBm modulated output at 2kHz thereby allowing them to be used as tracer signal generators for use with the TFS-FS1 Optical Leakage Detector and most popular fiber identifiers.

### Rugged Construction

These devices are both specifically designed with the field technician in mind providing a long battery life and rugged construction that includes high impact rubber bumpers, weather resistant membrane switches, and a durable powder coat finish further protecting the devices.

### Quick-Charging

The TFS-201 Optical Light Source and TFS-290™ Optical Tracer Source are powered by either four AA alkaline batteries or an AC/DC adapter with four AA NiMH batteries (both the adapter and NiMH batteries are included).

The TFS-291™ Optical Tracer Source is powered by six D size NiMH batteries or an AC/DC adapter (both the adapter and NiMH batteries are included).

In addition to standard charge mode, the units feature an emergency quick-charge mode that allows the user to charge the batteries in approximately 1 hour.

# TFS-FS1K500 Series

## Optical Leakage Detector Kit

### SPECIFICATIONS

Source Emitter	Laser
Source Port Style	ST, FC, SC, others available
Source Fiber Size (MAX)	100/140
Source Wavelength	TFS-FS1, TFS-290, TFS-291: 1550nm TFS-201: 1310 nm, 1550 nm
Source Power	TFS-FS1: < -1 dBm TFS-201: -8 dBm TFS-290: +5 dBm TFS-291: +15 dBm
Source Stability	TFS-201, TFS-290, TFS-291: $\pm 0.1$ dB/8hr typical TFS-FS1: $\pm 0.2$ dB/8hr typical
Source Modulation	TFS-FS1: 500 Hz TFS-201: CW, 30 Hz, 500 Hz, or 2 kHz TFS-290, TFS-291: 2 kHz
Bandwidth	5 nm
Operating Temperature	0°C to +50°C
Storage Temperature	-10°C to +60°C
Humidity	10% to 90%, non-condensing
Power	TFS-FS1: 1 x 9 VDC Alkaline Battery TFS-201, TFS-290: 4 x "AA" NiMH or Alkaline Batteries, 120 VAC / 60 Hz TFS-291: 6 x "D" NiMH Batteries, 120 VAC / 60 Hz
Battery Life	8-10 hours typical
Source Charge Time	Trickle Charge - 16 hours typical Quick Charge - 1 hour typical
Source Physical Specification	Size - 7" x 3.5" x 1.3" Weight - < 1lb.

### AVAILABLE OPTIONS:

TFS-FS1K505 Kit with TFS-201  
P/N 2011391000

TFS-FS1K555 Kit with TFS-290  
P/N 2011391010

TFS-FS1K557 Kit with TFS-291  
P/N 2011391020

### INCLUDES THE FOLLOWING:

TFS-FS1 Optical Leakage Detector

Wide Band IR Filter (1280-1620 nm)

TFS-TSA Aerial Lens & Scope Kit

TFS-201 Optical Light Source or TFS-290 Series Optical Tracer Source

Hard Sided Case

Four (4) "AA" NiMH or Six (6) "D" NiMH Rechargeable Batteries

AC Power Adapter/Charger

Operation Manual on CD

### RELATED PRODUCTS:

TFS-301 Optical Power Meter  
P/N 2011387000

TFS-401 Optical Loss Test Kit  
P/N 2011388000

