

Introduction



Figure 1

The KI6171 is a handheld, rugged and easy to use maintenance and installation instrument that identifies optical fibers by detecting the optical signals transmitted through a single mode fibre. The KI6171 utilizes non – destructive macro bend detection, which eliminates the need to identify a fibre by opening it at the splice point.

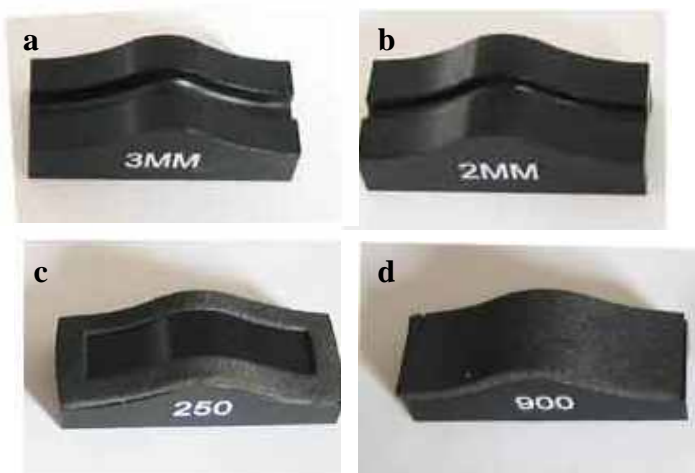
During installation, maintenance or restoration it is often necessary to identify a specific fiber. By clamping onto the fiber, the KI6171 can detect and indicate presence of the signal, a test tone such as 270, 1000 and 2000 Hz and traffic direction. It also displays relative core power. When KI6171 detects traffic on a fiber being tested, LED illuminates to indicate presence and direction of transmission and intermittent audible tone can be heard (Figure 1).

Presence of the test tone is indicated by illumination of LED and continuous audible tone (Figure 1). There are four types of adapter heads available: 3mm and 2mm, for pigtail and patchcord (Figure 2, a and b), smooth surfaced with foam perimeter for use with ribbon fibre or 250µm coated fiber (Figure 2, c) and foam - covered to accommodate 900µm buffered fiber.

The KI6171 Optical Fiber Identifier is powered by a 9V alkaline battery.

Operating the KI6171:

1. Choose the correct adaptor head for the type of fiber to be tested. The instrument is supplied with four adaptors as shown on Figure 2:

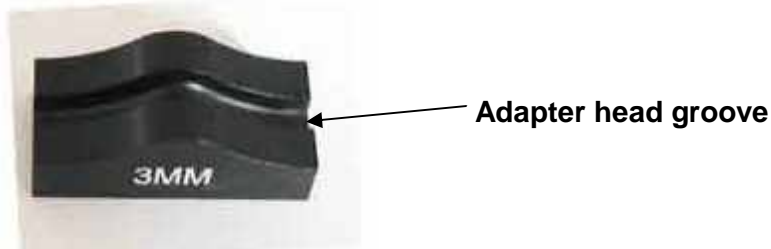


- a. 3mm, slotted
- b. 2mm, slotted
- c. 250 µm & ribbon
- d. 900 µm

Figure 2

2. Select the appropriate fiber adaptor and slide it into the mating slotted channel with slight downward pressure making sure to place the adaptor with the indexing notch facing the front of the instrument as in Figure 1.

Insert the fiber into adapter head groove when using 2mm and 3mm slotted connectors:



Insert the fiber into the groove on the clamp when using the 900 and 250 µm adaptor heads:



3. Slide the thumb switch fully upward to clamp the fiber. This will turn the unit on.
4. Slide the thumb switch backwards to loosen the adapter head and turn off the unit.

Presence of Traffic: Illumination of either traffic LED with intermittent audible tone indicates the detection and direction of traffic. This is useful in determining whether the fiber is transmitting or receiving at equipment terminal locations. Relative core power will be also displayed in digital format. In the absence of optical signal, KI6171, LED will be dark and "Lo" will be displayed in the relative core power position.

Test Tone Detection: Illumination of any of test tone LEDs and continuous audible tone indicate presence of the test tone.

All brands of fibre identifiers are subject to false traffic identification due to external light ingress. To minimize false traffic detection, avoid using instrument under bright or fluorescent lighting. A stable core power meter reading indicates a positive traffic lock. Gently rock the identifier from side to side in the presence of traffic, the indicated direction should not move on a positive traffic lock.

Maintenance: It is important that the optical ports remain clean and free of dust, dirt, grease, or other foreign matter. Cleaning with lint-free swabs and isopropyl alcohol is recommended for optimum performance. Remove batteries when instrument is not in use for long periods of time.

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