



## T-P23 Low Voltage Cable Fault Locator

The Kehui T-P23 has been designed for the location of all types of low voltage cable fault, without the need to disconnect the customers. If a fault is suspected on an LV cable, due to a blown fuse or customer complaints, the device is connected to the cable at the substation or at an intermediate location, such as a link box. It allows a local or remote operator to perform Time-Domain Reflectometry (TDR) testing on any combination of phases. A 3-channel transient recorder is included to record the 3-phase voltages of the faulty cable, so that the exact nature and behaviour of intermittent faults can be identified. The signals acquired by the transient recorder are also used to detect voltage distortion, which triggers the TDR system.

In addition to its use as a TDR, quasi-synchronous Travelling Wave Fault Location can be performed using 2, Kehui T-P23 units. The 3 phase voltage recordings from any 2, or more, Kehui T-P23 units can also be used for Fault Location using the Voltage Gradient method.

By providing total control from remote locations the Kehui T-P23 can be connected to a faulty cable by field staff who are unfamiliar with the analysis of TDR waveforms - the expertise in adjustment and interpretation being provided by a centrally located specialist. This becomes particularly beneficial when the equipment has to be left on-site awaiting the (re)-occurrence of an intermittent fault.

### Features:

- Locates all LV cable faults including transient and intermittent faults
- Measurement on live cables without disconnecting the customer
- Local Bluetooth® control from portable PC and Android phone or tablet
- Monitors all three phases simultaneously
- Remote control over the internet using integral GSM/GPRS modem
- Automatic remote notification of trigger and access to records
- Self-powered from the supervised cable, through the test leads

- **Specification**

**Event storage:**

- The last 20 triggered events
- 16 pre-trigger TDR waveforms
- 48 post-trigger TDR waveforms

**Dimensions:** 240mm x 120mm x 60mm

**Weight:** 1kg

**Environmental Protection:**

- ABS Housing IP65
- Connectors IP65

**Delivery includes**

Three-phase test lead

GSM/GPRS antenna

T-P2X MASTER Remote control and fault location software

The screenshot shows the EDF Kehui T-P2X Master software interface. It features a central plot area displaying a TDR trace with a vertical cursor. Below the plot are two panels showing AC recording waveforms. The interface includes various control panels for job selection, manual tests, and event parameters. Callouts point to specific features:

- Job/Unit Selection:** Points to the Job Selector panel on the left.
- Zero Cursor set at connection point:** Points to the vertical cursor on the TDR trace.
- 2 Cycles of AC Recording:** Points to the first AC recording waveform panel.
- Manual TDR Tests:** Points to the Manual Tests panel on the right.
- Cursor set at point of divergence:** Points to the vertical cursor on the TDR trace.
- Distance to fault:** Points to the 'Result' field showing '50 m'.
- 10 cycles of AC recording:** Points to the second AC recording waveform panel.

**Optional Accessory**

**LV Cable Marker**

The LV Cable Marker provides is applied at known points along a cable (e.g. Street lights). It appears on the TDR trace like an intermittent fault at an already identified position and helps to simplify interpretation of TDR traces and/or to improve the accuracy of distance to fault determination. Its use does not interfere with the supply to customers.