ETDR-10
Cable Fault Locator

<table>
<thead>
<tr>
<th>Key Features</th>
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<tr>
<td>• TDR for balanced cables</td>
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<td>• Widest range in a handheld cable fault locator – up to 20 km</td>
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<td>• 7 test modes</td>
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<td>• Dual balanced input enables pair comparison and crosstalk location</td>
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<td>• 10 memories for on-site waveform storage and comparison</td>
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<tr>
<td>• Large clear waveform display of full trace for accurate diagnosis, 192 \times 192 dot LCD display with LED backlight</td>
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<tr>
<td>• Zoom for detailed examination</td>
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<td>• Easy to operate</td>
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<tr>
<td>• Pre-programmed PVF values</td>
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<td>• Automatic PVF calculation</td>
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<td>• Results can be logged on an external printer or PC via RS232C</td>
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<td>• Small size, suitable for using in the field</td>
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<td>• Internal rechargeable battery pack</td>
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The **ETDR-10** is purposefully designed for balanced telecommunications cables. Seven test modes offer fast and accurate fault location procedures for finding cable discontinuities at distances of up to 20 km. Another feature is the possibility of comparing measured cable parameters with results stored in 10 memory locations. The ETDR-10 has dedicated keys for the most frequently used functions. All faults are clearly identified from open circuits to wet joints. It is a small handheld instrument for measuring TDR cable parameters. In conjunction with the EPR-42S printer it is suitable for printing measurement protocols. All cable faults are clearly identified on a large calibrated display.
### Specifications

**Measuring modes provided**
- Examination of a single pair
- Comparison between a good and faulty pair
- Difference between a good pair and a faulty pair
- Location of crosstalk points by transmitting on one pair and receiving on the other
- “Before and after” comparison using the memory

**Measuring ranges**

<table>
<thead>
<tr>
<th>Measuring Range</th>
<th>1 = 100 m</th>
<th>2 = 250 m</th>
<th>3 = 500 m</th>
<th>4 = 1000 m</th>
<th>5 = 2500 m</th>
<th>6 = 5000 m</th>
<th>7 = 10000 m</th>
<th>8 = 20000 m</th>
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<tr>
<td>(Maximum range depends on cable type and condition)</td>
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**Evaluation of results with cursor and marker in meters**
- Zoom, selectable: 1 to 5
- Resolution:
  - With zoom: 0.11 % of range
  - Without zoom: 0.53 % of range

### Accuracy

- Sampling: 0.1 m
- Fault location: ± 0.2 % of range

### Propagation velocity

- PVF: 0.3 to 0.999
- V: 90 to 299 m/µs
- V/2: 45 to 150 m/µs

### Gain control

- Range: 0 to 66 dB
- Steps: 6 dB/step
- Maximum sensitivity: ± 5 mV

### Line connection

- Impedance: 120 Ω balanced
- Input protection: 120 V, 50 Hz, 200 V DC
- Balance control: 50 to 270 Ω
- Connectors: 4 mm banana sockets

### Pulse characteristics

- Amplitude: nominally 6 V into 120 Ω
- Width:
  - Narrow: 100 m, 10 ns, 50 ns, 100 ns
  - Medium: 250 m, 25 ns, 50 ns, 100 ns
  - Wide: 500 m, 50 ns, 100 ns, 250 ns

### Memory location

- For waveforms: 10
- For set-ups: 10
- For user stored PVF values: 10
- For typical PVF values: 10

### General specifications

**Power supply**
- Internal rechargeable battery pack
- Operation time: approx. 4 hours (without back-light)
- External DC source: 12 to 16 V, min. 400 mA (e.g., mains adapter, car battery)

When external DC source is connected to ETDR-10, the battery pack is being charged automatically

**Interface**
- RS232C

**Ambient temperature range**
- Operating: -10 to +50°C
- Storage and transport: -20 to +70°C

**Dimensions**
- 200 x 100 x 40 mm

**Weight**
- 0.8 kg

### Ordering information

**EL326/000 Cable Fault Locator ETDR-10**
- Including:
  - Operating manual
  - Mains adapter
  - Battery pack
  - 2 balanced measuring cables
  - Carrying case

**Options**
- ELS318/000 Printer EPR 42S
- ELS328/000 Blocking filter EBF-10
- ELS326/SW PC software for data transfer

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