TDR1000/3
Handheld TDR



- **Simple operation**
- **AUTO set up for instant use**
- **Ultra fast pulse for near end fault identification**
- **Trace HOLD feature with live trace overlay to allow comparison between cables**
- **IP54 rating offers real life working**
- **Designed for use on all metallic cable pairs**

DESCRIPTION

The TDR1000/3 is a hand held, compact time domain reflectometer for locating faults on metallic cables. It has a minimum resolution of 0.1 m/0.3 ft and a 5 km/15 kft maximum range depending on velocity factor selected and cable type.

Four output impedances are available (25, 50, 75, and 100 Ω) and a velocity factor between 0.2 and 0.99 will meet any cable test requirements.

The TDR1000 has a simple selection option which together with a 4 way control switch offers an intuitive operation for the user.

FEATURES AND BENEFITS

An AUTO selection option ensures that the most effective parameters are selected depending on the range required, aiding rapid diagnosis of the TDR trace. Dual cursors allow complete flexibility, giving the operator full control and instant indication of distance between two points.

A trace HOLD feature also allows comparison between conditions, something not seen on most other handheld TDRs, and a live trace overlay feature adds the ability to compare two traces in real time. Extra high resolution together with white-light backlight and grey scale tones give the graphical display a vibrancy, aiding the user in identifying key events on the trace.

- Backlit graphics monochrome LCD (256 x 128)
- Adjustable display contrast
- Resolution to 0.1 m
- For use on Telecom TNV-3 circuit, or 150 V CAT IV power circuits
- Power blocking filter not required
- Environmental protection to IP54
- Auto selected output impedanc (between 25, 50, 75 and 100 Ω)
- 2 ns pulse for near end fault location
- AUTO option selecting gain and pulse for each range
- Display distance in metres or feet
- Uses five AA (LR6) primary cells

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SPECIFICATIONS

Note	**Except where otherwise stated, this specification applies at an ambient temperature of 20 °C**
Range	10 m, 25 m, 100 m, 250 m, 1000 m, 2500 m, 5000 m (30 ft, 75 ft, 300 ft, 750 ft, 3000 ft, 7500 ft, 15000 ft)
Accuracy	±1% of range ± pixel at 0.67 VF [Note- The measurement accuracy is for the indicated cursor position only and is conditional on the velocity factor being correct.]
Resolution	1% of range
Refresh rate	Trace updates 3 times per second
Input protection	This instrument complies with IEC61010-1 for connection to live systems up to 150 V CAT IV when used with the optional fused test lead set.
Output pulse	5 volts peak to peak into open circuit. Pulse widths determined by range and cable
Gain	Set for each range with three user selectable steps (in Manual operating mode)
Velocity factor	Variable from 0.2 to 0.99 in steps of 0.01
TX null	Automatic
Power down	Automatic after 5 minutes with no key press
Backlight	Stays on for 1 minute with no key press
Battery	Five LR6 (AA) type batteries, Manganese alkali or nickel metal-hydride cells
Battery life	Up to 14 hours (Typical)

MECHANICAL

IP Rating	The instrument is designed for use indoors or outdoors and is rated to IP54.
Dimensions	230 x 115 x 48 mm (9.0 x 4.5 x 2.0 inches)
Weight	0.6 kg (1.32 lbs)
Case	ABS
Connectors	Two 4 mm-safety terminals
Test lead	(19 mm spaced TDR1000/3): 1 pair 2 meters long consisting of 1 pair 4 mm shrouded connector to miniature crocodile clips
Display	256 x 128 pixel Graphics LCD
Operating temperature range and humidity	-15 °C to +50 °C (5 °F to 122 °F)
Storage temperature range and humidity	-20 °C to 70 °C (-4 °F to 158 °F)
Safety	When using the optional fused test lead set this instrument complies with IEC61010-1 for connection to live systems with less than 300 V between the terminals and up to 150 V CAT IV to earth
EMC	Complies with Electromagnetic Compatibility Specifications (Light industrial) BS EN 61326-1, with a minimum performance of 'B' for all immunity tests

ORDERING INFORMATION

Description	Order Code
Included Accessories	
Time Domain Reflectometer	TDR1000-3
Hard case	5410-420
Miniature clip test lead set (1 pair)	6231-652
User guide CD	2002-178
Rubber boot with stand	6231-802
Optional accessories	
Split conductor fused test lead set (1 pair)	1002-015
Pouch - test and carry case	2001-322
BNC adaptor	25965-154
Red and black probes and clips - for use with all Megger TDR Fused Test Leads.	1002-491
Retractable sheath fused test lead (1 pair)	1006-511

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CERTIFICATION ISO
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