



## Spirent E-Series E2770 ADVANCED HANDHELD TDR TESTER

Spirent's E2770 Advanced Handheld TDR Tester is one of the industry's longest-range handheld devices—with a range of 52,000 feet. The E2770 has .05% resolution of range for locating faults on twisted, coaxial, power, and armored cables. From common faults such as opens and shorts to those hard-to-find intermittent faults, the E2770 finds them all with ease. It can even find faults on noisy lines.

### UP TO 52,000 FEET WITH .05% RESOLUTION OF RANGE

The E2770 is capable of locating faults to within 3.9 inches up to 656.2 feet and to within 26 feet at a range of 52,000 feet.

### TRACE AVERAGING

Faults at longer distances and higher gains can be harder to locate due to noise on the line under test. By averaging successively sampled waveforms with the E2770, you can eliminate random noise.

### DUAL CURSORS

The E2770's dual cursors provide easy fault location on cables comprising different sections, enabling you to easily calculate distances from the nearest cable joint.

### USER-SELECTABLE PULSE WIDTHS

The E2770's selectable pulse widths allow you maximum control over the trace displayed. Low pulse widths allow higher resolution between cable events while higher-pulse widths allow you to both find faults at a longer distance and to find lower-magnitude faults on the cable.

### INTERMITTENT FAULT FINDING

Intermittent faults are temporary faults that can occur on a cable, which under normal test conditions may pass undetected.

### STORAGE OF MULTIPLE TDR TRACES

With 15 memory locations that allow waveforms to be stored for future analysis, the E2770 has the capability to find these intermittent faults. The waveforms can be downloaded via the RS-232C port for storage on a PC or for analysis using our software application, Metrace. Similarly, waveforms previously stored on PC can be uploaded before you go into the field so that you can make an immediate comparison on-site to determine if and where any faults exist on the line.

### MULTIPLE POWER SUPPLY OPTIONS

The E2770 is powered by NiMH (nickel metal hydride) batteries with an auto-off feature to provide extended operation in the field. You can quickly recharge the batteries from the normal AC supply or via the special DC vehicle charger lead that comes with the unit. The E2770 can be used while the batteries are charging, and when there is no power supply available, you can operate the unit from standard manganese-alkali batteries.

### ONLINE HELP

The E2770 provides an on-screen help facility.

### HIGH-RESOLUTION DISPLAY

The E2770's display panel is a high-resolution black-and-white graphic supertwist LCD with additional backlighting to ensure optimal visibility in all environments.

### RS-232C PORT

You can transfer results from the E2770 to or from a PC for storage or manipulation using the Metrace software support package. Results can also be downloaded to an Epson-compatible printer.

### WATER/DUST-PROOF TO IP54

The superior, rugged construction of the E2770 allows it to be used in severe weather conditions with no risk of damage to the unit. The unit is fully functional from 5° to 112°F and waterproof to IP54 standards.

### SPIRENT GLOBAL SERVICES

Spirent Global Services provides a variety of professional services, support services and education services - all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services website at [www.spirentcom.com/gs](http://www.spirentcom.com/gs) or contact your Spirent sales representative.



## General Specifications

### Physical Characteristics

<b>Case dimensions (L x W x H)</b>	11.81 x 7.08 x 2.75 in.
<b>LCD</b>	4.72 x 2.55 in. graphic with backlight
<b>Case material</b>	ABS
<b>Weight</b>	3.74 lb. (with batteries)
<b>Leads</b>	6ft
<b>Connectors</b>	Four 4mm safety terminals

### Communications Port

<b>Interface levels</b>	RS-232C compatible
<b>Data format</b>	1 start bit, 8 data bits, 1 stop bit and no parity bit
<b>Baud rate</b>	9,600 baud standard

### Power

<b>Batteries</b>	6 NiMH C Cells manganese-alkali or Ni-Cad/NiMH cells
<b>Battery life</b>	22 hours of nominal use (without backlight)
<b>Auto switch off</b>	After 5 minutes with no key press
<b>External AC adapter</b>	100 – 250 V
<b>External DC adapter</b>	11 – 14 V

### Environmental Requirements

<b>Bump</b>	To IEC 68-2-29
<b>Drop</b>	To IEC 1010, Clause 8.4
<b>Vibration</b>	To IEC 1010, Clause 8.3
<b>Impact</b>	To IEC 1010, Clause 8.2
<b>Humidity</b>	0 – 93% RH @ +104°F
<b>Operational temperature</b>	5° to 112°F
<b>Storage temperature</b>	–4° to 140°F
<b>Cold temperature</b>	To IEC 68-2-1
<b>Dry heat</b>	To IEC 68-2-2
<b>Damp heat</b>	To IEC 68-2-3
<b>Water/dust ingress</b>	IP54

### Protection, Safety, and EMC

<b>Protection</b>	Withstands ringing tone. Withstands 300 V DC or 250 V AC
<b>Safety</b>	Complies with IEC 1010
<b>EMC</b>	Complies with BS EN 50081-1 and BS EN 50082-1

## Technical Specifications

<b>Amplitude</b>	Max 14 V pk to pk into open circuit
<b>Output impedance</b>	Balanced 120 Ω
<b>Ranges</b>	0–660 ft. 0–1,320 ft. 0–3,300 ft. 0–6,600 ft. 0–13,200 ft. 0–26,400 ft. 0–52,800 ft.
<b>Pulse width</b>	From 20 ns to 16 μs depending on range
<b>Gain</b>	0 to 90 dB in steps of 6 dB
<b>Velocity factor</b>	0.300 to 0.999 in steps of 0.001
<b>Resolution</b>	0.33 ft. for 660 ft. 0.66 ft. for 1,320 ft. 1.66 ft. for 3,300 ft. 3.30 ft. for 6,600 ft. 6.60 ft. for 13,200 ft. 13.2 ft. for 26,400 ft. 26.4 ft. for 52,800 ft.

## Ordering Information

### Model

<b>E2770 Advanced Handheld TDR Tester (North America)</b>	E2770-NA
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### Options

<b>Mettrace PC Software</b>	E2790
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### Spares

<b>NiMH Batteries</b>	CEJ0037
<b>Carry Case</b>	DDP0032
<b>Test Lead Set</b>	DFK0120
<b>Mains Power Supply</b>	DFM0026
<b>Power Cord</b>	DFH0361
<b>Vehicle Adapter</b>	DFH1039
<b>Instruction Manual</b>	CMR0113
<b>Quick Reference Guide</b>	CMR0114

All units are shipped standard with carrying case, leads, batteries, and instruction manual.



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