TS®54 TDR

Overview

Premium Voice, Data, and Video Telephone Test Set

The innovative TS54 TDR (Time Domain Reflector) is perfect for voice, data and video technicians and communication service provider technicians who need a best-in-class test set combined with a powerful TDR and toner. Fluke Networks took the best telephone test set features and design and combined them into one. There's nothing else like the TS54 TDR on the market today. No longer will you need to carry a separate TDR, toner, pair identifier and butt-in test set– everything you need is in one newly redesigned and compact package.

The TS54 delivers 20% more extreme weather protection with the latest advancements to our patented RainSafe™, DropSafe™ and DataSafe™ technology. This means the TS54 is weatherproof and rugged and able to butt in on live DSL lines to test POTS quality without crashing data service.

- DropSafe™ PRO – passed 20-foot drop test onto concrete

- RainSafe™ PRO – protection for extreme weather conditions

- DataSafe™ PRO – prevents disruption of data transmission on the line

- High-visibility keypad with glow-in-the-dark keys for any outside plant environment

- Extra-large, backlit LCD screen

- Familiar, cell phone-like menu and user interface

- Two-way, hands-free speakerphone

- Low bateery and mute indication

- Optional headset

Features

- **TDR** – find cable length measurement and locate faults on virtually all types of cable including twisted pair, coaxial, and parallel conductors

- **Toner** – five separate tones for fast and easy differentiation between multiple wire pairs

- **SmartTone®** – short the correct pair and tone changes for exact pair identification

- Additional key testing functions include:

1. **Data indication** – warns when data is present on the line
2. **Voltage indication/measurement** – identifies potential line problems
3. **Current (mA) indication/measurement**– verifies sufficient line current
4. **Caller-ID with Call Waiting** — verifies functional service
5. **DTMF Digit Grabbing** — isolates faulty customer premise equipment
6. **Detects dial tone, places andreceives calls**
7. **Polarity**

Extra-large, backlit LCD screen

Glow-in-the-dark keys for any outside plant environment

Specifications

Electrical	
Current range (Off-Hook)	10 mA to 100 mA

DC Resistance	
Off-Hook	150 Ω nominal
On-hook	3 MΩ

AC Impedance	
Off-hook	600 Ω nominal; 300 Hz to 3400 Hz
On-hook	120 kΩ; 300 Hz to 3400 Hz
Headset impedance	32 Ω

Rotary Dial Output	
Pulsing rate	10 pps ± 1 pps
Break/make ratio	60/40
Interdigit interval	300 ms
Resistance during break	100 kΩ

DTMF Output	
Tone frequency error	±1.5% maximum
Tone level	-3 dBm combined (typical)
High versus low tone difference	2 dB ± 2 dB

Speed Dialing	
Memory capacity	9 speed dial memories of 23 digits, plus one last number redial memory
PBX pause duration	User programmable; default of 4 seconds
Hook flash duration	User programmable; default of 500 ms

Automatic shut-off duration	User programmable; default of 2 minutes
Voltage measurement	
Range	4 V dc to 140 V dc
Current measurement	
Range	0 mA to 100 mA
TDR	
Range	3,000 feet (914 m)
Accuracy	±2 m ±5 %
SmartTone toner	
Frequencies	Steady tone: 950 Hz Alternating tones: 950 Hz and 1480 Hz
Power	
Battery type	9 V alkaline battery
Physical	
Dimensions	8.3 in x 3.2 in x 2.6 in (211 mm x 81 mm x 66 mm)(without belt clip)
Weight	1.16 lb (0.53 kg) (without belt clip)
Water resistance	The test set is rain and moisture resistant

Environmental	
Temperature range	
Handset speech and dialing functions	-22°F to 140 °F (-30°C to 60°C)
LCD function	-13°F to 140°F (-25°C to 60°C)
Storage	-22°F to 150°F (-30°C to 66°C)
Altitude	To 10,000 ft. (3,000 m) max
Relative humidity	95% to 30°C 75% to 40°C 45% to 50°C 30% to 60°C
Safety	
Regulatory compliance	Complies with ANSI/ISA 82.02.01 (61010-1) 2004, CAN/ CSA-C22.2 No. 61010-1-04, UL 61010-1 (2004) and IEC 61010-1:2010

Regulatory compliance	for measurement category I, 300 V dc maximum, pollution degree 2
Maximum transient voltage	1500 V
EMC	Complies with EMC EN61326-1

Notes: Specifications subject to change without notice.

Ordering Guide

Item Number	Description
TS54-A-09-TDR	Test Set + TDR, ABN with Piercing Pin
TS54-BANA	Test Set + TDR, 4 MM Banana, Extra-large Alligator Clips, Test Probe

Accessories Guide

Item Number	Description
BELTCLIP-TS	Belt Clip
LEAD-PIRC-PIN	Test Leads with Piercing Pin Clips
LEAD-CO-346A	Test Leads with a 346A Plug for the Central Office1
LEAD-ABN-PPIN	Test Leads with Angled Bed-of-Nails (ABN) and Piercing Pin Clips
LEAD-ALIG-CLP	Test Leads with Alligator Clips
LEAD-ABNPRJ11	Test Leads with an RJ-11 Plug, Angled Bed-of-Nails (ABN), and Piercing Pin Clips
TEST-LEAD-BANA-CLP	Test Leads with a 4 mm Banana Plug, Alligator Clips, and Test Probe
HEADSET-TS	Headset

1. When you use these test leads, the TDR accuracy specifications do not apply.

About Fluke Networks

Fluke Networks is the worldwide leader in certification, troubleshooting, and installation tools for professionals who install and maintain critical network cabling infrastructure. From installing the most advanced data centers to restoring service in the worst weather, our combination of legendary reliability and unmatched performance ensure jobs are done efficiently. The company's flagship products include the innovative LinkWare™ Live, the world's leading cloud-connected cable certification solution with over fourteen million results uploaded to date.

1-800-283-5853 (US & Canada)

1-425-446-5500 (International)

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