



# TS<sup>®</sup>100 PRO with PowerBT<sup>®</sup> Bridge Tap Detect

## Cable Fault Finder, Toner, AC/DC Voltage & Bridge Tap Locator

As new services like IPTV, streaming video, and high-speed FTTx become more prevalent, so does customer demand for network reliability, service and higher quality. However, reliability of these network services can be significantly affected by bridge taps.

Bridge taps are extra lengths of cable that can negatively affect the signal. Detecting bridge taps can be complicated and costly but the TS100 PRO with PowerBT Bridge Tap Detect allows users to locate multiple bridge taps on up to 3,200 feet (975 metres) of cable with simply the touch of a button.

### Key Customers:

- Telecommunications Service Providers
- Cable Television Operators/MSOs
- Independent, Regional & Rural Telcos
- Network Technicians
- Contractors
- Network Installers
- Metropolitan Networks

### TS100 PRO Highlights:

- Characterizes your cable in seconds with the push of one button
- No training required or confusing graphs to interpret
- Handheld and ruggedly built for the outdoor environment
- Ideal for all levels of technicians

The new TS<sup>®</sup>100 PRO Cable Fault Finder with PowerBT<sup>™</sup> Bridge Tap Detect not only provides open/short circuit detection – to 8,000 feet (2.4 kilometres) – but is also a telecom technician's first line of defense against bridge taps. Because bridge taps are a significant source of DSL network performance problems, they need to be identified and fixed quickly before causing customer attrition. The TS100 PRO can accurately locate multiple bridge taps in seconds on up to 3,200 feet (975 metres) of cable with the touch of a button.

An essential five-in-one tool, the TS100 PRO also gives users a built-in toner with five different tones and patented SmartTone<sup>®</sup> for exact pair identification and reports AC/DC voltage from just one end of any two conductor wires, telephone wires, security wires or coax cables. This time-saving multi-tool is so affordable every technician can have one.

### Features:

- Bridge tap detection for xDSL pre-qualification
  - » Reports length of multiple bridge taps – up to 3,200 feet (975 metres)
  - » Sees past bridge taps to the end of the cable
- Long-distance tester – tests opens and shorts up to 8,000 feet (2.4 kilometres)
- Patented SmartTone<sup>®</sup> tone generator with five different tones for exact pair identification
- Built-in TDR (Time Domain Reflectometer)
- AC/DC voltage detection
- One-button testing
- Built-in toner



Open/short circuit detection – up to 8,000 feet (2,400 metres)



Bridge tap found at 945 feet /288 metres

### Benefits:

- Affordable bridge tap detection
- Improved DSL network performance
- Five-in-one tool; bridge tap detector, open and short detector, voltage detector, SmartTone with five different tones
- No complicated set up or expertise required
- No interpretation or analyses of complex graphs



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**First Response TDR with Bridge Tap Detection**



## Specifications

<b>Maximum Length</b>	8,000 feet (2,438 meters) on certain cable types, 4,000 feet (1,220 meters) on most cable types, and 500 feet (152 meters) on cables with high loss. The tester shows -Err if the cable is too long to be correctly measured.
<b>Representative Maximum Cable Length</b>	8,000 feet (2,438 meters): CAT-3 Twisted Pair 8,000 feet (2,438 meters): CAT-5 Twisted Pair 6,000 feet (1,830 meters): 12/2 AC Wire 3,000 feet (900 meters): RG-6/U TV Coax 1,500 feet (457 meters): RG-174/U Coax
<b>Minimum Length</b>	No minimum length (can read a bridge tap at 0 feet/meters). Minimum non-zero reading is 2 feet or 1 meter.
<b>Length Accuracy</b>	±2 feet (±0.6 m) for cables less than 10 feet (3 m) ±5 feet (±2 m) for cables longer than 10 feet (3 m) and shorter than 200 feet (60 m) ±3 %, ±5 feet (±2 m) for cables longer than 200 feet (60 m)
<b>Distance to Bridge Tap</b>	0 feet to 3,200 feet (975 meters)
<b>Minimum Length of Bridge Tap</b>	10% of the distance to the bridge tap – dependent on the cable characteristics.
<b>Measurement Rate</b>	Maximum of 4 complete measurements per second, decreasing to 2 seconds per measurement based on cable size and uniformity.
<b>VOP</b>	Adjustable from 20 to 99, saved in flash memory.
<b>Test Technology</b>	Time Domain Reflectometry (TDR) with 100 Ω drive impedance, 6v maximum pulse height.
<b>Cable Type</b>	Virtually all two or more conductor cables
<b>Power</b>	4 AA alkaline batteries
<b>Reverse Battery Protection</b>	No damage to the tester will occur if the batteries are installed backwards.
<b>Battery Life</b>	35 hours (typical)
<b>Low Battery Indication</b>	LED display alternates between LO and bAtt when the battery voltage falls below 4.5v.
<b>Maximum Output Voltage</b>	4 voltage peak
<b>Maximum Isolation Voltage</b>	250 volts RMS

<b>Toner Range</b>	52,800 feet (16,093 meters)
<b>SmartTone® Range</b>	7,000 feet (2,134 meters)
<b>Tone Injection</b>	Approximately 1 kHz at an amplitude of 80% of battery voltage. Variable frequency and cadence. Tone characteristics change as cable condition changes to “normal-open” from any other condition.
<b>Voltage Measurements</b>	Range: 0 volts AC to 115 volts AC; 0 volts DC to ±150 volts DC Accuracy: AC: ±1 % or ±1 volt AC (45 Hz to 65 Hz); DC: ±1% or ±1 volt DC
<b>High Voltage Detection</b>	AC voltage detected to 115 volts; DC voltage detected to ±150 volts. AC voltage ≥90 volts or DC voltage ≥100 volts causes high voltage warnings to show on the display.
<b>Impedance Range</b>	35 Ω to 330 Ω with auto-compensation within this range. Cables with impedances outside this range will not be properly tested and may produce erratic or incorrect readings.
<b>Temperature Range</b>	Operating: 32°F to 104°F (0°C to 40°C) Storage: 32°F to 131°F (0°C to 55°C)
<b>Humidity</b>	Operating: 20% to 80% relative humidity Storage: 0% to 100% relative humidity
<b>Operating Relative Humidity</b>	80% maximum at 86°F (30°C) 50% maximum at 104°F (40°C)
<b>Operating Altitude</b>	9,843 ft max (3,000 m max)
<b>Weight</b>	1 lb (454 grams)
<b>Dimensions</b>	7.4 in x 2.7 in x 1.4 in (18.8 cm x 6.9 cm x 3.6 cm)
<b>Safety</b>	IEC 61010-1:2010; N10140 EMC: IEC/EN61326-1:2006
<b>Certifications and Compliance</b>	CE Conformité Européenne. Conforms to relevant European Union directives. IEC/EN61010-1 CAN/CSA-C22.2 No. 1010.1-92 + CSA-C22.2 No. 1010.1B-97, UL/ANSI 3111-1 N10140 Conforms to relevant Australian standards.

**Notes:**

Patents 6160405, 6285195, 6323654, and 6509740.  
Specifications subject to change without notice.

## TS100 PRO Ordering Information

Model	Description
TS100-PRO-BT-TDR	TS100 PRO Cable Fault Finder TDR Kit with Bridge Tap Detection
LEAD-ABNP-100	Test lead with angled-bed-of-nails and piercing pin. Compatible with the TS100 and TS100 PRO
CASE-TS100	TS100/TS100PRO pouch with Fluke Networks' logo
LEAD-ALIG-100	Test lead with alligator clips. Compatible with the TS100 and TS100 PRO
LEAD-ABN-100	Test lead with angled-bed-of-nails. Compatible with the TS100 and TS100 PRO



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