



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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COMMUNICATIONS

GREENLEE COMMUNICATIONS OFFERS A COMPLETE LINE OF INNOVATIVE AND INDUSTRY-LEADING TEST & MEASUREMENT SOLUTIONS FOR THE COMMUNICATION SERVICE PROVIDER INDUSTRY.



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DataScout™ 10G

NEW PRODUCT



DS10G-HW-B2

SPECIFICATIONS

Display & Input	7" WVGA LCD touch screen 800x600 resolution
Weight (Varies by configuration)	0.91 kg (2.0 lbs) minimum 1.36 kg (3.0 lbs) maximum
Dimensions	10 x 6.5 x 2.2 inches (WxHxD) 254 x 165 x 56 millimeters (WxHxD)

ENVIRONMENTAL

Operating Temperature	Operating Temperature: 10°C to 55°C/14°F to 131°F
Operating Humidity:	0% to 93% RH non-condensing
Storage Temperature:	-20°C to 70°C -4°F to 158°F
Battery Type:	Li Ion battery pack
Run Time:	2-8 hours (varies by test mode)
External Power:	Mains: 110-240VAC, 50-60Hz with adaptors
Enclosure:	Shell: Rugged 1.5mm extruded aluminum Boot: Rubber with Wi-Fi® antenna storage slot Kickstand: Powder coated steel

CONFIGURATION OPTIONS

CAT. NO.	DESCRIPTION
TABLET CONTROLLER	
N DS10G-HW-B1	Base Controller Without Datacom Interface
N DS10G-HW-B2	Base Controller With Datacom Interface
TEST INTERFACES	
N DS10-HW-WIFI	Wi-Fi®
N DS10-HW-ETH	Dual 10/100/1000T/X & 10G Ethernet
N DS10-HW-PDH1	Dual DS1
N DS10-HW-PDH2	DS3 & Dual DS1
N DS10-HW-P	ISDN-PRI
N DS10-HW-DDS	Digital Data Services (DDS)
N DS10-HW-T	Transmission Impairment Measurement System (TIMS)

Wi-Fi® is a registered trademark of the Wi-Fi Alliance.

*As compared to competitive network analyzer model
Subject to change without notice.

CUSTOMIZABLE FOR ANY WORKGROUP

FASTER TIME TO RESULTS

- Ready to test in 25 seconds
- Unique DS0 (TIMS) to 10G Ethernet solution
- Test multiple services simultaneously

SIMPLE TO USE, FAST TO LEARN

- Touch screen tablet design
- Portrait and landscape modes
- Intuitive test configuration
- Exportable results

RUGGED & RELIABLE

- Plug & stay - No modules to lose!
- Replaces up to 8 handhelds*
- Light yet sturdy aluminum housing
- Protective non-slip boot with kickstand

DESIGNED FOR:

- Service Providers
- Utilities
- Mobility
- Enterprise

Test Kits Include:

- DataScout 10G analyzer
- Universal charger with adapter blades

SOFTWARE OPTIONS

CAT. NO.	DESCRIPTION
ETHERNET TEST OPTIONS	
DS10G-SW-201	Adds dual port 1Gb Ethernet testing
DS10G-SW-110	Activates single 10G test interface
DS10G-SW-210	Adds dual port 10Gb Ethernet testing
DS1 TEST OPTIONS	
DST-SW-DT1	Adds dual port T1 testing
DST-SW-N1	Adds T1 CSU/NIU emulation
DST-SW-V	Adds DS0 voice analysis
DST-SW-E	Adds Euro/Asian ISDN-PRI support
DST-SW-X	Adds DS0 drop, insert & bypass
DST-SW-DCOM	Adds DATACOM DTE/DCE interface testing
DST-SW-E1	Adds E1/T1 On-The-Fly testing
DS3 TEST OPTIONS	
DST-SW-H3	Adds DS3 thru-mode testing
DST-SW-D1D	Adds DS1 drop from DS3 signal
DST-SW-NX	Adds DS3 CSU/NIU emulation
TIMS TEST OPTIONS	
DST-SW-PRO4	Adds 4-button frequency program
DST-SW-4	Adds 4-WIRE 100/135Ω testing
DST-SW-EM	Adds E&M TYPE I-V signaling, trunk, PBX and Tie Line testing
DST-SW-DG	Adds measurement of dropouts, hits, amplitude, and phase jitter
DST-SW-TON	Adds transmit of warble ID tone

DataScout™ 10G Product Specifications

PRODUCTIVITY APPLICATIONS

- Chrome web browser
- Google maps
- Email, notes & contacts
- PDF viewer
- Onboard user manual & videos
- Remote control/upload via LAN

802.11 WIRELESS VALIDATION

- Tests for proper 802.11 b,g,n configuration
- Performs channel scan
- Graphical frequency/channel/power display
- Remote control via Wi-Fi

ETHERNET VALIDATION

- Dual 10/100/1000T/X SFP Ethernet ports
- 10 Gigabit Ethernet SFP+
- BERT
- Optical power measurement
- PING & Traceroute
- RFC-2544 with quick test validation
- Loopback, monitor and thru modes
- Easy to read graphical reports

DS3 TESTING

- Automatic self test on connection
- STS-1 signal detection
- Simultaneously test Dual T1 and DS3

DS1 TESTING

- Dual T1/E1 testing
- PRI-ISDN NT/TE emulation
- T1 to Ethernet Bridging
- DS0 Voice & Data Testing
- CSU/NIU Emulation Mode
- VT100 emulation
- Frame Relay option

SIGNALING (T1MS/DS0) TESTING

- Comprehensive VF test suite
- T1MS 2/4 wire plus wideband
- CO/PBX emulation
- Perfect replacement for Am5, CXR-704, HP4935A

4 WIRE DDS TESTING

- CSU/DSU emulation
- 56K primary/secondary modes
- 64K clear channel mode
- Real-time received byte display
- Monitor received signal level

DATACOM TESTING

- Sync/Async & DTE/DCE modes
- V.35, RS232, RS449, RS530, X21

INTELLIGENT TIMING VERIFICATION

- Verifies network timing systems
- Combines oscilloscope, T1 test and switch box
- Composite clock/pulse analysis
- Eliminates need for expensive storage oscilloscope
- Test 10 T1/E1 circuits in seconds



MULTI-NETWORK TEST ANALYZERS

DataScout™ 1G

NEW
PRODUCT



DS1G-BAS

FASTER TIME TO RESULTS

- Ready to test in 15 seconds
- Efficient SLA verification
- Results can be exported for easy sharing

REDUCE TIME TO REPAIR

- All-in-one analyzer that is simple to use and fast to learn, enabling technicians to quickly determine and resolve network issues, regardless of the source

NO MODULES REQUIRED

- Eliminates the need for multiple test modules
- Combines seven different physical layer test protocols into one complete handheld testing solution, saving time and money

DESIGNED FOR THE TECHNICIAN

- Ruggedized for demanding environments
- Ergonomically designed to be the lightest and smallest on the market
- Long battery run time provides extended field testing

Test Kits Include:

- DataScout 1G analyzer
- Universal charger with adapter blades
- Padded storage case
- Stylus
- USB adapter
- Wi-Fi® Antenna

SPECIFICATIONS

Interfaces	Management: LAN 10/100 Base-T USB: Mini-USB with adapter Headset: Mini USB connector ear bud
Wi-Fi	802.11 b/g/n
Display & Input	3.5" TFT Touch Screen LCD
Weight	1.65 lbs (0.75 kg) without battery 2.2 lbs (1 kg) with battery
Dimensions	3.94 x 8.27 x 1.66 inches (WxHxD) 100 x 210 x 42 millimeters (WxHxD)

ENVIRONMENTAL

Operating Temperature	0°C to 50°C
Operating Humidity	5% to 90% non condensing
Storage	-10°C to 70°C
Battery	Type: Li Ion battery pack, 7.4V, 4800mAh Run Time: 7-10 hours typical (varies by test mode)
External Power	Mains: 110-240 VAC, 50-60 Hz
Enclosure	Ruggedized ABS with rubber shell

CONFIGURATION OPTIONS

CAT. NO.	DESCRIPTION
DS1G-BAS	Ethernet Analyzer
DS1G-PDH1	DS1 analyzer (T1 or E1)
DS1G-PDH2	DS1/DS3 analyzer (T3/T1 or E3/E1)

SOFTWARE OPTIONS

CAT. NO.	DESCRIPTION
DS1G-SW-BAS	Adds single stream Ethernet tests to DS1G-PDH1 or PDH2
DS1G-SW-ADV	Adds multiple stream Ethernet and Y.1564 tests
DS1G-SW-WIFI	Adds Wi-Fi® analysis
DS1G-SW-VOIP	Adds VoIP analysis
DS1G-SW-IPTV	Adds IPTV analysis
DS1G-SW-E1	Adds E1 to T1 analyzer
DS1G-SW-T1	Adds T1 to E1 analyzer
DS1G-SW-DCOM	Adds DATACOM testing
DS1G-SW-CODIR	Adds Co-Directional testing
DS1G-SW-E3	Adds E3 testing to T3 analyzer
DS1G-SW-T3	Adds T3 testing to E3 analyzer
DS1G-SW-C37	IEEE C37.94 Teleprotection analysis



WIRELESS TEST SOLUTION

AirScout™



NEW PRODUCT

AirScout™

ENABLING Wi-Fi READINESS

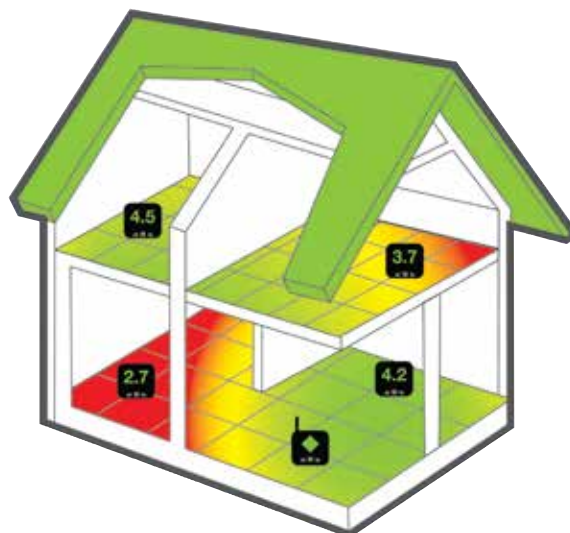
- › *The innovative Wi-Fi test solution*
- › *Enables whole home or small business Wi-Fi® readiness testing in minutes*
- › *Determines real “Quality of Experience” in multiple locations simultaneously*

CAT. NO.	DESCRIPTION
N ASK302	Two Client Solution in Carry Case
N ASK306	Six Client Solution in Carry Case
A ASM300	Individual Master Controller
A ASC300	Individual Client

SPECIFICATIONS

ASM Controller	Height	1.81" (46.2 mm)
	Width	5.83" (147.6 mm)
	Depth	5.79" (146.8 mm)
	Weight	332 g (11.7 oz)
ASC Client	Height	1.46" (36.83 mm)
	Width	4.88" (124.46 mm)
	Depth	4.88" (124.46 mm)
	Weight	247 g (8.71 oz)
ASK306	Height	14.6" (370 mm)
	Width	11.8" (300 mm)
	Depth	6.69" (170 mm)
	Weight	11.7 lbs (187.2 oz)
Environment	Operating Temperature	0 to +55 °C / 0 to +131 °F
	Storage Temperature	-20 to +65 °C / -4 to +149 °F
	Operating Humidity	20-80% RH non condensing
	Storage Humidity	10-90% RH non condensing
Compliance	FCC	
	Canada Regulatory Requirements (ICES-003)	
	CE Compliance	

- Industry leading Application benchmark testing
- All 802.11 types benchmarked
- Validation testing over time increasing accuracy
- Determines, throughout the home in one survey:
 - Signal strength
 - Network congestion
 - Signal to noise ratio
 - Real throughput rates
 - Application performance in each location
- Up to 30 Clients supported
- Results recorded locally and in a cloud database for future reference



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CABLE MAINTENANCE TEST SET

Sidekick® Plus Copper and DSL Test Set

**NEW
PRODUCT**



1155-5005

- **Saves time** – Easy-to-use mode selection dial and operation - minimizes training needs and saves time on the job
- **Versatile** – Combines your copper qualification needs with DSL sync and service testing in one test set
- **Fully loaded** – The Sidekick® Plus xDSL comes complete with all you need to perform tests on the copper networks that support DSL services
- **No modules needed** – Advanced cable diagnosis and troubleshooting in a single test set

Applications

Helps technicians diagnose and troubleshoot problems with twisted pair cable install, qualify, and maintain DSL services

Features

Bonded Modem With xDSL:

- Pair bonding
- ADSL2+/VDSL2+
- Vectoring
- Broadcom BCM63168
- Automated test scripts
- USB export/import of test results/profiles
- 35MHz Wideband Noise Spectrum Analysis
- 4.4MHz Loss Measurement Test
- 35MHz Impulse Noise Step
- TDR with auto bridgetap detection (zero dead zone)

ADSL/VDSL Modem Sync And Service Tests:

- DSL Showtime
- Bits per Tone Graph
- Signal-to-Noise Ratio Graph
- HLOG Graph
- Error Counter
- Upper Layer Testing: Ping, Trace-route, HTTP, FTP

Standard Features:

- Advanced Dual Trace Pulse TDR (Zero Dead Zone)
- Resistive Fault Locator (Detects up to 20M Ω)
- 1G Ω Leakage Test (Insulation Resistance)
- Longitudinal Balance Test
- Ground Resistance Test
- Stress Test
- AC/DC Voltage
- Resistance
- Open Meter
- Loop Current
- Circuit Loss
- Tracing Tone Generator
- Reference Tone

CAT. NO.	UPC NO.	DESCRIPTION
1155-5001	01316	Sidekick Plus Kit LCC
1155-5003	01324	Sidekick Plus Kit SCC
1155-5005	01463	Kit, Sk Plus, Impulse Noise, Step TDR
1155-5009	01317	Sidekick Plus With Wideband
1155-5010	01318	Sidekick Plus With Wideband & Adsl/Vdsl Sync LCC
1155-5011	02275	Sidekick Plus With Wideband & Adsl/Vdsl Sync SCC
1155-5012	04197	Sidekick Plus Pair Bonded Modem - Fully Featured
1155-5013	03838	Sidekick Plus Pair Bonded Modem - Fully Featured SCC

Sidekick® Plus ADSL Far-End-Device

**NEW
PRODUCT**



1155-5001

For use with the Sidekick® Plus as a complete ADSL testing solution

Applications:

- Helps technicians diagnose and troubleshoot problems with twisted pairs at the far end of the cable
- Install, qualify, and maintain ADSL services

Benefits:

- Helps qualify pairs for ADSL service with ease
- Reduces testing time and increases technician productivity

Features:

- K-Test – Far-End-Device straps the pair under test
- TDR – Far-End-Device can alternately short and open the pair to verify the end-of-line
- Noise – Far-End-Device provides a line termination
- Loss – Far-End-Device provides single or multiple reference tones
- Longitudinal Balance – Far-End-Device provides an IEEE 455-1985 Longitudinal Balanced Termination
- Autotest – The Sidekick Plus manages the operation of the Far-End-Device during the test sequence
- Short Pair – Verifies loop length
- Short Pair to Ground – Determines pair resistive balance
- Remote activation via Sidekick® Plus
- Ability to connect and disconnect Central Office and Customer Premise equipment
- Supports Second Pair Testing
- Generates tones for pair ID and pair tracing
- Capability to generate tones over a range of frequencies from POTS to ADSL

Kit Includes:

- Sidekick® ADSL Far-End Device Unit
- RJ45 to Telco clip leads
- Canvas carry case

*For use with the Sidekick® Plus Models

1155-5009	Sidekick® Plus with Wideband
1155-5010	Sidekick® Plus with Wideband & ADSL/VDSL Sync LCC
1155-5011	Sidekick® Plus with Wideband & ADSL/VDSL Sync SCC
1155-5012	Sidekick® Plus Bonded Modem - Fully Featured
1155-5013	Sidekick® Plus Bonded Modem - Fully Featured

CAT. NO.	UPC NO.	DESCRIPTION
N 1157-5001	03958	Sidekick® FED Kit

Sidekick® T&ND

1144-5000



- Easy-to-read digital LCD display
- Internal Dialer for making Transmission Test connections
- Autotest – performs 22 individual tests at the touch of a button
- Determines the stressed noise susceptibility of dry and working pairs
- Measures AC/DC Volts, Leakage, resistance, and loop current
- Performs circuit loss, circuit noise (metallic noise), and power influence tests
- Built-in open meter
- Locates up to 4 load coils
- Single set up for Tip-Ring, Tip-Ground, and Ring-Ground tests
- Field replaceable test leads
- On-screen display of “LOW BATTERY” when batteries are near failure.

SPECIFICATIONS

Weight	2 lbs.	Opens	0 to 60 kft.
Dimensions	10.75" X 4.25" X 2.5"	Loop Current	0 to 100 mA
AC Volts	300 Vrms max.	Load Coil	up to 4
DC Volts	± 300 Volts max.	Circuit Loss	+1 to -15 dB
Resistance	1 Megohm max.	Power Influence	40 to 100 dBmC
Leakage	100 Megohm max.	Circuit Noise	0 to 75 dBmC
Stress	0 to 82 dBmC	Power	Four AA Batteries

CAT. NO.	UPC NO.	DESCRIPTION
1144-5000	60853	Sidekick T&ND Test Set
1134-1002S	60752	Case

Sidekick® T&N

1137-5002



- Five transmission and noise tests
- Determines the stressed noise susceptibility of dry and working pairs
- Measures resistance, AC/DC volts, and capacitive kick
- Provides tone for twisted pair or crossed conductor identification
- Single setup for testing Tip-Ring, Tip-Ground, and Ring-Ground
- Minimal drying effect in all ranges
- Field replaceable leads
- Softcase with adjustable strand hook
- Low battery indicator light

SPECIFICATIONS

Dimensions	10.75" x 4.25" x 2.5"	Stress Test	0 to 82 dBmC
Weight	2 lbs.	Loop Current	0 to 100 mA
Resistance	Rx1: Reads 0 to 2000 Ω Rx1K: Reads 0 to 2 MΩ	Circuit Noise	0 to 75 dBmC
Leakage	Rx10K: Reads 0 to 20 MΩ	Circuit Loss	-15 to +1 dB
DC Voltage	0 to 300 volts DC	Power Influence	50 to 100 dBmC
AC Voltage	0 to 300 Vrms	Operating Temp.	-4°F to +140°F
		Power	Four AA batteries

CAT. NO.	UPC NO.	DESCRIPTION
1137-5002	60526	Sidekick T&N
1131-0202	60751	Test Leads
1134-1002S	60752	Case

Sidekick® 7B



1134-5029

- Determines the stressed noise susceptibility of dry and working pairs
- Measures resistance, AC/DC volts, and capacitive kick
- Provides tone for twisted pair or crossed conductor identification
- Single setup for testing Tip-Ring, Tip-Ground, and Ring-Ground
- Minimal drying effect in all ranges
- Field replaceable leads
- Softcase with adjustable strand hook
- Low battery indicator light

SPECIFICATIONS

Dimensions	10.75" x 4.25" x 2.5"
Weight	2 lbs.
Resistance	Rx1: Reads 0 to 2000 Ω; Rx1K: Reads 0 to 2 MΩ
Leakage	Rx10K: Reads 0 to 20 MΩ
DC Voltage	0 to 100 Volts DC
AC Voltage	0 to 200 Vrms
Stress Test	0 to 82 dBmC

CAT. NO.	UPC NO.	DESCRIPTION
1134-5029	60525	Sidekick 7B
R 1134-1002S	60752	Case
R 1131-0202	60751	Test Leads

Sidekick® V.O.C.



1143-5000

- Identifies defective inside wire and jacks
- Measures resistance, AC/DC volts, quasi square wave, and pair balance
- Identifies shorts, opens, crosses and grounds
- Replaces the need for other meters
- Provides tone for twisted pair or crossed conductor identification
- Single set-up for testing Tip-Ring, Tip-Ground, and Ring-Ground with ground connection
- Field replaceable leads
- Softcase with adjustable hook
- Low battery indicator light

SPECIFICATIONS

Dimensions	10.75 x 4.25 x 2.5 inches
Weight	2 lbs.
Resistance	Rx1: Reads 0 to 2000 Ω Rx1K: Reads 0 to 2 Megohms
Leakage	Rx10K: Reads 0 to 20 Megohms
DC Voltage	0 to 100 Volts DC
AC Voltage	0 to 200 Vrms
Stress Test	0 to 82 dBmC
Operating Temp.	-4°F to +140°F
Power	Four AA batteries

CAT. NO.	UPC NO.	DESCRIPTION
1143-5000	60527	Sidekick V.O.C.
R 1134-1002S	60752	Case

CABLE & SERVICE TESTING

TM-700 Tele-Mate™ Telephone Test Set



TM-700



A PRODUCT VIDEO IS
AVAILABLE, SCAN THIS QR
CODE OR VISIT:

www.youtube.com/GreenleeDEMO

- Complete telephone set with ringer
- Phone-to-phone intercom, compatible with other SmartIntercom™ devices
- Modular or alligator clip connection
- Amplified loudspeaker line monitor
- Headset or handset operation
- Tone and pulse dialing
- Large 10-location speed dialing memory
- Multi-memory redial
- DTMF digit detection and measurement
- Tone output mode
- Caller ID with name display
- Call waiting Caller ID
- Missed call indication
- DSL compatible, high impedance monitor and filters
- Glow-in-the-dark keypad
- Line voltage and current display
- High voltage detect and lockout
- High current detect and lockout
- Uses 2 AA/LR6 batteries (included)
- Quick release belt-clip

SPECIFICATIONS

Technical Specifications

Length:	9.25" (235 mm)
Width:	2.5" (64 mm)
Height:	3.25" (83 mm)

CAT NO.	UPC NO.	DESCRIPTION	QTY.
TM-700	00984	TM-700 Tele-Mate™ TELEPHONE TEST SET	1

TM-500 Tele-Mate™ Telephone Test Set



TM-500

- Luminescent (glow-in-the-dark) keypad
- Can be used safely on a DSL enabled line
- High Impedance Monitor for monitoring line without disrupting existing traffic
- Over voltage and over current protection
- Tone and Pulse dialing for versatility on old and new phone lines
- Polarity test with LED indicator
- 32 digit last number redial and pause
- 10 number speed dial
- Adjustable volume control plus mute
- Pause
- Flash to generate a timed break recall
- Line powered, no battery needed
- Headset (included) for hands free operation
- RJ11 socket
- Quick release belt-clip

SPECIFICATIONS

Technical Specifications

Length:	9.25" (235 mm)
Width:	2.5" (64 mm)
Height:	3.25" (83 mm)

CAT NO.	UPC NO.	DESCRIPTION	QTY.
TM-500	00486	Telephone Test Set W/ ABN "Bed-Of-Nails" Croc Clips (POP)	1
TM-500T	00494	Telephone Test Set W/ ABN "Bed-Of-Nails" Croc Clips (Boxed)	1
TM-500i	00643	Telephone Test Set W/ Small Croc Clips (Boxed)	1

Nautilus Range Telephone Test Sets



PE961

- Waterproof tested to an IEC IP67 rating, these test sets are so impervious to water they can actually withstand submersion, though they actually float
- The PE961 features our DigAlert™ over-voltage alarm and lock-out function to reduce the risk of damaging or knocking out digital service lines
- Built-in DSL Filter
- Ten-number speed dial memory (32 digits each)
- Last number redial
- Precise hook flash
- Microphone mute
- Audible and visual mode indicators
- Polarity test in any mode
- Unique quick-release belt clip
- Premium cord set with bed-of-nails and piercing pin clips
- Luminescent Keymat

CAT. NO.	UPC NO.	DESCRIPTION
PE930	60487	Telephone Test Set
PE945	60489	Test Set with Two-Way Hands Free
PE961	60511	Test Set with Two-Way Hands Free and DigAlert
A PE901	60492	Ground Start Cord Set
R PE902	60493	Cord Set

FEATURE	PE930	PE945	PE961
Monitor safe for data	✓	✓	✓
Adjustable Ringer	✓	✓	✓
Waterproof Design	✓	✓	✓
Loud Speaker Listening		✓	✓
Two-Way Hands Free		✓	✓
DigAlert™ Data Lock-out		✓	✓
ADSL Compatible	✓	✓	✓

ToneRanger



- Direct buried fault location, it gives an exact location to the fault.
- Locates open shield and open bond faults
- Locates twisted-pair resistance faults in aerial, underground, and direct buried cable
- Locates splits, opens and bridge taps
- Uses low voltage and does not damage cable, circuit cards, C.O. or subscriber equipment
- Sends Pair ID tone through wet pulp and saves service outage time on small count section throws
- Locates open shields and shield to earth faults
- Does not interfere with DSL, IPTV or digital services on adjacent lines
- NEW easy user interface

CAT. NO.	UPC NO.	DESCRIPTION
10101-50000	12734	TF1A Kit, ToneRanger Aerial
10101-51000	20206	TF1ABL Kit, ToneRanger Aerial and Buried
10101-51100	20202	TF1AP Kit, ToneRanger Aerial with Pair ID
10101-51200	12733	TF1AB Kit, ToneRanger Aerial with Buried Wand
10101-51300	12732	TF1AL Kit, ToneRanger Aerial with Layup Stick
10101-51400	52019	TF1ABLP Kit, ToneRanger with Aerial, Buried & Pair ID
52042471	-	Transmitter Test Cable

Throwmaster® Paragon



- Used by construction cable splicers all around the world
- Transfer telephone/broadband services during normal working hours.
- Does not interrupt important customers
- Simple to follow interface and process for successful transfer of circuits
- LED's on the cords aid in telling the user in the cut, transfer and splice
- Compatible with T-1, HDSL, HDSL-2, HDSL-4, ADSL and other services less than 10Mb/s
- Each step is automatically tested and verifies the circuit is complete at the end of the transfer

CAT. NO.	UPC NO.	DESCRIPTION
0529-0001	52901	Throwmaster® Paragon 519 Kit

1155 Fault Loop Simulator



1155-7001

- Simulates 8 faults that can be used individually, or in a combination:
 - Cross battery
 - Resistive 5 kohm load to ground
 - Resistive 500 ohm short
 - Two balanced bridge taps
 - 60 ohm series resistance fault
 - 60 Hz Power Influence
 - High frequency noise
- 1910 foot cable length
- Battery operated
- Ruggedized case
- Convenient Test Lead connections.
- Three access locations in the span for custom faults
- Train users on real twisted-pair faults
- Test multiple test set functions such as RFL, TDR, Power Influence, Stress, Leakage, Resistance, impulse noise and others
- Verify results from the field in a controlled environment
- Demonstrates how noise increases with pair imbalances
- Show differences between shorts, bridge taps, series faults and opens with a TDR

CAT. NO.	UPC NO.	DESCRIPTION
1155-7001	57691	Test Set

4-6-8 Modular Adapters



PA1902

- Nylon-reinforced ABS plastic body.
- Easy-to-read wire layout.
- Removable/replaceable patch cord.
- Inline adapters.
- Snagless plugs.
- Belt clip.
- Notched copper contacts keep alligator clips attached during testing.

CAT. NO.	DESCRIPTION
PA1902	RJ45 Modular Adapter (8-way)
PA1903	RJ11 Modular Adapter (6-way)

TurTEL® Modular Adapters/Polarity Tester



46050

- Use with tone generators, test sets and other test devices to troubleshoot and isolate problems with telephone circuits
- Two jacks allow in-line testing without service interruption
- The TurTEL 8 has two eight-position, eight-wire jacks
- Simple, push button operation to check polarity and power
- Reduced chance of shorting adjacent alligator clips due to unique shape
- Test contacts are perforated to provide sure grip for alligator clips or use of probes
- Patch cord included
- Heavy-duty stainless steel belt clip

CAT. NO.	UPC NO.	DESCRIPTION
46050	46050	TurTEL 8 Modular Adapter

TelScout® TS90



TS90INTL

- Two Pair Test Capability
- One-Step Setup
- Automatic Instrument Control Mode
- 45,000' (15 km) Fault Location Capability
- Splash and Drip Proof
- Single-Button Zoom Function
- Pair Comparison Mode
- Splits/Crosstalk Mode
- Intermittent Fault Location
- Measures Distance to Fault in Feet, Meters, or Time
- Configurable for Any Cable Type and Vp (0.300 to 1.000)
- Accurate (±3 ft. at 10,000 ft.)
- On-line Tutorials
- Large Backlit Display

SPECIFICATIONS

Environmental Temperature –
 Operating: 32° F to 77°F (0° C to +45° C).
 Non-operating: 12° F to 92°F (-20° C to +60° C). Humidity – 95% RH, non-condensing.
 EMI Emissions – EN55011 class A. EN60555-2.

Power Battery Operation –
 Battery Type: Six AA Alkaline.
 Operating Time: >4.5 hrs. with backlight off.
 Battery Saver: Selectable for 5 to 30 minutes or disabled.

SPECIFICATIONS

Physical	Dimensions		
		in.	mm
	Height	5.6	141
	Width	8.3	211
	Depth	1.8	43
	Weight	.lb	kg.
	Net	2.2	1

CAT. NO.	UPC NO.	DESCRIPTION
TS90INTL	26345	Telescout, International TS90
012154500	60740	Leads
THM5BAT	60756	Rechargeable Battery Pack

CableScout™ TV220 - TDR Cable Tester for CATV



TV220

- Easier-to-use GUI interface requires little or no training
- PC application is compatible with all the current operating systems
- Improved clarity and trace functionality makes it even easier to identify faults on-screen and determine noise versus the fault
- Even higher SNR and Resolution makes it easier to identify events that were previously difficult or impossible to find
- Zero dead zone at the launch allows the user to see faults immediately
- Improved trace update rate allows you to see changes to the fault faster (5 times/sec. versus 2 times/sec.)
- Higher capacity to hold traces
- USB interface for trace download
- Lighter weight and longer charge life with the new lithium-ion battery
- TestWizard™ one-button testing
- Automatic Return Loss Measurements
- Automatic Multiple Event Marking
- High-Resolution, Short Pulse Width (1 ns)
- Rugged enough to withstand a 2 meter drop

CAT NO.	UPC NO.	DESCRIPTION
TV220	00676	TDR for CATV Broadband
R TV220-0350	17404	Soft Carrying Case
A 1155-1010	25877	Power Supply, AC-DC
A 174173401	21640	Vehicle DC Adapter/Charger
R 174326900	21641	Replacement Power Cord

SPECIFICATIONS

Output	Test Signal Output – 1/2 Sine Amplitude – 4V into 75 Ω Pulse Width – 1 ns, 5 ns, 25 ns Output Impedance – 75 Ω Acquisition System Bandwidth – 400 MHz
Return Loss	Automatic at cursor location Resolution: ±1 dB Input Protection – ±400 VDC + peak AC up to 440 Hz, 30-second duration Maximum Distance Range – 12,000 ft. (3,658 m), depending on cable type and condition Gain – 0 to 72 dB Waveform Storage – Minimum of 20 waveforms with notes
Distance Accuracy	Feet: 0 to 2,000 ft.: ±2 ft. ± uncertainty in Vp 2,001 to 6,000 ft.: ±3 ft. ± uncertainty in Vp 6,001 to 12,000 ft.: ±4 ft. ± uncertainty in Vp Meters: 0 to 610 m: ±0.6 m ± uncertainty in Vp 611 to 1830 m: ±0.9 m ± uncertainty in Vp 1831 to 3658 m: ±1.2 m ± uncertainty in Vp
Display	Resolution: 640 x 440 (281,600 pixels) Size: 7.2 inch Type: High contrast LCD Backlight: Operator switchable Waveform Display Resolution – 0.33% of selected range, 4.5 cm (0.15 ft.) minimum Display Ranges – Twelve display ranges from 6 ft. (1.8 m) to 12,000 ft. (3,658 m), plus single-button zoom window Output Port – Serial 9-pin D type connector Distance Measurements – Meters, feet, nanoseconds

SPECIFICATIONS

Power	AC Operation – Voltage Ranges: 110 V, 220 V, or 240 V with appropriate AC to DC adapter Line Frequency: 50 Hz to 60 Hz DC Operation – Voltage Range: 9 to 16 VDC @ 1A (charging and operating)
Battery Operation –	Type: Internal Li-Ion rechargeable battery Operating Time: Typically 12 hours continuous operation (backlight off) Battery Savers (user selectable) – Shutoff: 5 to 30 minutes or disabled Backlight: Shutoff 5 to 30 minutes, disabled, or always on
General Characteristics	Temperature – Operating: –10° C to +40° C (+11° F to +104° F) Non-operating: –20° C to +60° C (–4° F to +140° F) Humidity – 10% to 95% (non-condensing) Field Usage – Shock, water, and dust resistant Durability – Survives drop of 2 meters (6 ft.) to concrete in standard soft case. Drip proof, dust resistant
EMI Emissions –	EN55011, Class A EN60555-2
Safety –	CE (Low Voltage Directive)




PHYSICAL

Dimensions	Centimeters	Inches
Height	24	9.5
Width	30	11.5
Depth	9	3.5
Weight	Kilograms	Pounds
Net	3	6.4

CableScout™ TV90



- High performance easy to use Time Domain Reflectometer for Coaxial testing applications
- Employs optimized pulsing and sampling, coupled with advanced filtering and signal-processing techniques to ensure clean waveform and easy identification
- Context-sensitive help screens for all functions
- Small, portable and lightweight 2.2 lbs. (1kg)
- Includes rechargeable battery pack
- Includes twisted pair adapter and test probe

CAT. NO.	UPC NO.	DESCRIPTION
TV90US	12600	TV90 CableScout™ TDR
 THM5BAT	60756	Rechargeable Battery Pack
 THM5AC	21729	AC Adapter 110V
 TS90-0350	21739	Soft Carrying Case

SPECIFICATIONS

- Easy to operate (help screens available for all functions)
- Fast fault finding with automatic gain and vertical waveform positioning
- One-button Expand/Full View Function and zoom control.
- Precision accuracy 0-200 ft +/- 2 ft. 1% beyond.
- Range up to 4000 ft.
- High-resolution with optimizing pulse and sampling and advanced filtering
- Input Protection: 200 VDC + Peak AC.
- Rugged - designed for harsh environments
- Large 7.2-in. high-resolution backlit display.
- International power supply options

Environmental Temperature:
 Operating: 32° F to 77° F (0° C to +45° C).
 Non-Operating: 12° F to 92° F (-20° C to +60° C).
 Durability: Survives Drop test of 6 foot (2m) to concrete in soft case
 Power: 110 V, 220 V, 240 V with appropriate power adapter
 Battery type: 6 AA Alkaline and NiCad rechargeable pack. 4.5 hours continuous operation with adjustable battery saver modes

Standards UL, FCC EMI, CAN/CSA, EN, and CE

WIRE & CABLE IDENTIFICATION

Classic 77 Series Tone Generators

FEATURES / SPECIFICATIONS	77HP-G	77HP-G/6A	77M-G
Selectable Warble Tone	✓	✓	✓
Continuity Testing	LED & Beeper	LED & Beeper	LED
Polarity Testing	✓	✓	✓
Talk Battery Supply	✓	✓	✓
Two-line Modular Test Lead (RJ-11)	✓	✓	✓
Three-color LED (identifies AC ring voltage)	✓	✓	✓
Weather-Resistant Design	✓	✓	✓
Bent Nose Clips with Bed-of-Nails Penetrator	✓	✓	✓
RJ11 & RJ45 socket	✓	✓	
Lanyard	✓	✓	
Battery Operated (9V not included)	✓	✓	✓



Classic 77 Series Tone Generators

Permits technicians to identify the conductor within a bundle, at a cross-connect point or at the remote end. Can be used on twisted pair wiring (telecom, datacom, etc.), single conductors, coaxial cables, de-energized AC wiring and most other wiring.



CAT. NO.	UPC NO.	DESCRIPTION
77HP-G	49991	77H-GP Tone Generator
77HP-G/6A	49992	77HP-G/6A Tone Generator (ABN clips)
77M-G	49993	77M-G Tone Generator (basic)

Note: Not for use on energized AC wiring

CAT. NO.	UPC NO.	DESCRIPTION
77CS	08686	Leather Belt Holster for Classic 77 Series Tone Generators



Replacement Piercing Clips



- These traditional telco-style clips can be used with almost any style cordsets.
- Clips feature bent nose design for use on 66 style punchdown blocks and bed-of-nails penetrator for use on insulated wires.
- Package of two clips with red and black boots.

CAT. NO.	UPC NO.	DESCRIPTION
R RPC	08710	Piercing Clips

Station Master Pro



24B

- Troubleshoot irrigation systems
- Activate and cycle solenoids
- Test solenoids for continuity
- Send tone to identify wires
- Measure clock voltage
- Low battery indication
- Easy-to-understand LEDs
- Test leads with Bed-of-Nails and piercing Pin Clips
- 1-year limited warranty

SPECIFICATIONS

Minimum Voltage for Clock LED (LED intensity increases as voltage increases)	15 VAC
Minimum Battery while Testing	10.5 VDC
Maximum Input Voltage between Test Leads	28 VAC
Solenoid Circuit Recharge Time	2.5 seconds
Maximum Distance Range to Activate one Solenoid	12 AWG Loop 3000-13000 feet 14 AWG Loop 2000-8500 feet 18 AWG Loop 500-3000 feet
Power Source	9V alkaline batteries
Battery Life	3 hours continuous
Operating/Storage Temp.	32°F - 122°F (0° - 50°C)

CAT. NO.	UPC NO.	DESCRIPTION
24B	86786	Station Master Pro

Station Master Pro Kit



24BK

- Troubleshoot irrigation systems
- Chatter mode for audible locating of valves
- Activate any 24V AC valve solenoid
- Test solenoids for continuity
- Send tone to identify wires
- Check clock AC voltage
- Low battery indication
- Easy-to-understand LEDs
- Test leads with 'bed-of-nails' and piercing pin plips
- Tracing valve wiring
- Locates underground solenoids

SPECIFICATIONS

Minimum voltage for clock LED	15 VAC
Minimum battery while testing	10.5V DC
Maximum input voltage between test leads:	28 VAC
Solenoid activate output voltage:	27 to 18 VAC
Battery:	2 - 9V Alkaline batteries
Operating/storage temperature:	32°F to 122°F (0°C to 50°C)
Relative humidity (max):	80%

CAT. NO.	UPC NO.	DESCRIPTION
24BK	86787	Station Master Pro Kit

Professional GX Series Tone Generators

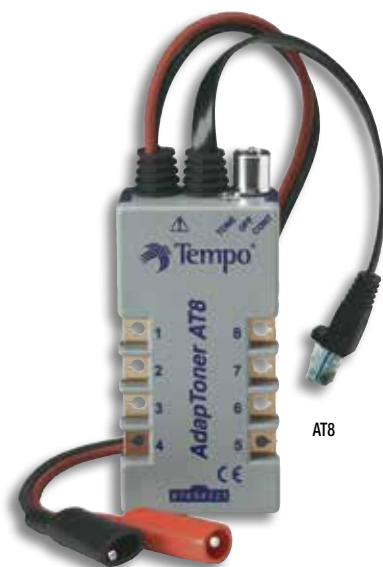


- Microprocessor controlled circuitry for increased reliability
- Two-line polarity indication for fast outlet identification
- Automatic shutoff to prevent battery drain
- Snag-proof boot prevents broken plug tabs
- Convenient wrist/hanging lanyard
- Three distinct, selectable tone signal outputs for multiple line identification
- Two selectable tone power outputs for use on open and shorted pairs
- Independent continuity test function
- Independent talk battery supply with higher output voltage
- Fixed alligator clips and removable modular plug for multiple connection options
- 77GX2 includes premium telco-style bent nose clips with piercing pin and bed-of-nails connectors

CAT. NO.	UPC NO.	DESCRIPTION
77GX	60556	77GX Tone Generator
77GX2	60560	77GX2 Tone Generator

Note: Not for use on energized AC wiring

AdapToner Modular Breakout Tone Generator



- The AT8 Tone Generator makes it simple to test continuity, polarity, send tone and even supply talk battery to any configuration of pairs in 8-position modular jacks and plugs
- Combines the features of our tone generators and a modular breakout adapter
- In-line testing is made simple with both a modular plug and jack on each unit
- 8-position "snag-proof" modular plug
- 8-position jack with protective cover
- Quick reference guide with common wiring configurations
- Selectable solid/warble tone signal
- Tone, continuity and talk battery supply using alligator clips
- Weather-resistant design
- Battery operated (9V not included)

CAT. NO.	UPC NO.	DESCRIPTION
AT8	08693	AdapToner Modular Breakout Tone Generator

Note: Not for use on energized AC wiring

LAN Toner with HUB Blink and Detect



AT8L

- The LAN Toner is designed for the network installation and maintenance professional and can be used on any wiring system including datacom, telecom, security/alarm, audio and CATV
- Blinks HUB, Switch Port, and PC activity lights for fast identification
- Detect LAN hubs & switches
- Provides tone signaling, continuity testing and telephone line polarity indication combined with a modular breakout adapter
- Selectable tone outputs for identifying multiple cable runs
- Includes multiple connection options

CAT. NO.	UPC NO.	DESCRIPTION
AT8L	60583	LAN Toner

Note: Not for use on energized AC wiring

Tone Test Set



600LS

- Our most comprehensive tone test set
- Traditional alternating tone signal for wire identification
- Audible line condition testing (level) indicates dead, working and off-hook lines
- Line 1 and 2 polarity testing using 4-conductor modular plug
- Improved talk battery supply for communication over inactive pairs
- Tone and test functions using either modular plug or 24" alligator clip leads
- Audible resistance level measurement
- Audible capacitance level measurement
- Battery operated (9V not included)

CAT. NO.	UPC NO.	DESCRIPTION
600LS	08680	Tone Test Set

Note: Not for use on energized AC wiring

Alarm Loop Verifier/Tone Generator



- Designed specifically for the security and alarm industry, the PE620 can be connected to a normally open or normally closed loop pair and provides a distinct audible tone when the alarm condition occurs
- Latching feature provides a simple method for identifying intermittent failures ("swingers") and confirming operation of switches at remote locations
- In the latching mode, the unit will catch the alarm condition and continue sounding until the tester is reset
- As a tone generator, the unit provides a traditional variable tone that can be applied using the 24" red and black test leads or a convenient 6-position modular plug
- Convenient magnetic back plate allows the PE620 to be mounted directly to the control panel cabinet or door
- Battery operated (9V not included)

CAT. NO.	UPC NO.	DESCRIPTION
PE620	08665	Alarm Loop Verifier/Tone Generator

Note: Not for use on energized AC wiring

Data Mate™ Precision Tracing Tone Generator



- Trace wire or cable without interfering with digital two-way cable or ADSL services
- The model 7780 Data Mate™ Precision Tone Generator is intended to provide tone for tracing and troubleshooting communication circuits without disrupting digital traffic on the line or adjacent lines
- The high purity of the tracing tones combined with internal isolating filters allows safe tracing on circuits that carry digital services above the baseband (two-way cable and ADSL)
- The high-power differential output of the 7780 makes tones easy to find, even over long distances. Also useful for continuity testing and polarity testing, the 7780 provides the standard warble tone and talk battery supply

- High Power Tone Output.
- Line Voltage and Polarity Indication.
- High Purity Tone Signal.
- Low Crosstalk.
- Low Battery Indicator.
- Filter-isolated Circuitry.
- Two-way Broadband Compatible.
- Modular and Telco Pro Alligator Leads.
- ADSL Service Compatible.
- Long Range.
- Popular, Standard Warble Tone Frequencies Continuity Testing
- Compatible with existing tone.

SPECIFICATIONS

Electrical

Output Power	+9dBm
Output Signal Frequency	577/982 Hz alternating
Output Impedance	3,500 ohms minimum, 25kHz to 1.1 MHz

Mechanical







Length 5.5" (140 mm)	Depth 1.0" (25 mm)
Width 2.25" (57 mm)	Weight 0.38 lbs. (0.17 kg)

CAT. NO.	UPC NO.	DESCRIPTION
PE7780	60777	Data Mate™ Tone Generator

Note: Not for use on energized AC wiring

Tone Probes Selection Guide

MODEL NO.	200B-G	200EP-G	200GX	200FP	200XP	500XP
Powerful 2" Rear-fire Speaker	✓	✓	✓	✓	✓	✓
One-button Operation	✓	✓	✓	✓	✓	Two-Button
Adjustable Volume Control	✓	✓	✓	✓	✓	✓
LED for Visual Signal Strength Indication		✓	✓	✓	✓	✓
Recessed Tabs for Telephone Test or Headset Connection			✓	✓	✓	
Headset Jack (audio shock protected)		✓				✓
LED Flashlight		✓				
Noise Filtration				✓	✓	✓
Replaceable Tip	✓	✓	✓	✓	✓	✓
Five-Minute Auto Shutoff				✓	✓	✓
Low-battery Indicator				✓	✓	✓
Battery Operated (9V not included)				✓	✓	✓
Water Resistant						✓
"Mains Power" Warning (acAlert® option)						✓
Patented				✓	✓	✓

Tough & Water Resistant Multi-Filter Tone Probe



- Water resistant (floats) and tough, combined with all the very best digital signal processing filtering 500XP will help identify signals buried in the worst of noise
- Simple two-button operation with dual signal strength indicating LEDs can work with any tone generator
- Headset allows discrete use in quiet environments and can help in acoustically noisy areas
- Option to enable acAlert®, which helps warn users if brought near hazardous ac power voltages which may be inaudible if using the advanced filtering

CAT. NO.	UPC NO.	DESCRIPTION
500XP	01125	500XP Pair Tracing Probe (POS)
500XPB	01085	500XP Pair Tracing Probe (Boxed)
HS001	01126	Replacement Headset
500XPH	02642	500XP Pair Tracing Probe Holster

Tone Probe Amplifiers



- Used in conjunction with any tone generator, Tone Probe Amplifiers permit wire and cable identification without having to make direct metallic contact with the conductor
- All models feature a powerful speaker for noisy environments, recessed on/off button control and high gain for accurate wire identification in congested cable bundles and equipment rooms
- The 200B-G also includes adjustable volume control for precise identification
- The 200GX also includes an LED for visual signal strength indication and recessed telephone test set connectors
- The 200EP-G also includes a headset jack (audio shock protected) and an LED Flashlight for working safely behind furniture, inside racks or in dim lighting conditions

CAT. NO.	UPC NO.	DESCRIPTION
200B-G	49986	Tone Probe, Basic
200GX	60557	Tone Probe, Standard
200EP-G	49987	Tone Probe, Standard, with Headset Jack & Flashlight
200C	08670	Leather Belt Holster for 200 Series Tone Probe Amplifiers

Filter Tone Probe



200FP

- By selectively filtering out 60Hz (or 50Hz) and its harmonics, the 200FP can be used with any tone generator for faster, more accurate, cable and wire identification
- Slim, comfortable design for use in limited-space areas
- Recessed on/off push-button control to conserve battery life
- Adjustable sensitivity/volume control to increase accuracy
- Blended carbon/plastic tip to reduce the risk of shorting terminals
- Patented

CAT. NO.	UPC NO.	DESCRIPTION
200FP	08672	Filter Tone Probe (60Hz mains)
200FP/50	60467	Filter Tone Probe (50Hz mains)

Multi-Filter Tone Probe



200XP

- Single button selects between default mode and two kinds of powerful noise filters
- Filtering means faster, more accurate pair tracing
- Digital signal processor for accuracy and sensitivity
- Durable, light weight
- Audible and visible signal detection
- Continuous, wide-range volume control
- Butt set terminals
- Field replaceable tip, spare tip included
- Uses a single 9V battery
- One probe for many applications
- Works with any tone generator
- The narrowband filter mode is especially well suited for 577Hz Telco tone sources and a version is available for 1kHz systems (983Hz)

CAT. NO.	UPC NO.	DESCRIPTION
200XP	60887	Multi-Filter Tone Probe (60Hz mains, 577Hz narrowband)
200XP/50	60888	Multi-Filter Tone Probe (50Hz mains, 983Hz narrowband)

Replacement Plastic Tips for 200 Series Probes



RPT-1

RPT-2

- Plastic tips perform much the same as traditional metal tips while reducing the risk of shorting terminals
- Specially formulated with a carbon powder and carbon fiber blended plastic
- Tips fit 200B, 200EP, 200GX, 200FP and 200XP probes
- RPT-1 comes with two pencil-style tips and two spade-style tips

CAT. NO.	UPC NO.	DESCRIPTION
R RPT-1	08711	Plastic Tips for 200B, 200EP, 200FP and 200XP
R RPT-2	60561	Plastic Tips for 200GX

Replacement Metal Tips for 200B and 200EP Probes



RMT-1

- Metal tips provide maximum performance when probing insulated wires or making direct metallic contact
- Made of nickel-plated brass
- Tips fit 200B and 200EP probes
- Package contains two pencil-style tips

CAT. NO.	UPC NO.	DESCRIPTION
R RMT-1	08709	Metal Tips for 200B and 200EP Probes

Precision Tone Generator



177

- Used in the telecommunications industry for pair identification and fault locating
- Supplies a precise 577.5Hz crystal controlled signal frequency.
- Variable output allows technicians to adjust signal strength to suit field conditions and improve accuracy
- Designed to work with any common amplifier and exploring coil for aerial fault locating
- For communications over inactive pairs, the unit supplies talk battery to power two telephone test sets (buttsets)
- Each of the three test leads is equipped with traditional bent nose piercing clips with "bed-of-nails" insulation piercing pins
- The tone generator and test leads fit neatly in a durable, protective woven polyester carrying case with shoulder strap
- Battery-operated (1 – 6V lantern included)

CAT. NO.	UPC NO.	DESCRIPTION
177	08657	Precision Tone Generator

SPECIFICATIONS

Power Requirements	One 6V lantern battery
Battery Life	40 hours nominal
Transmitter Frequency	577.5Hz pulsed at 1Hz, crystal controlled
Output Voltage	0.1 to 80Vp-p
Output Signal Level	0 to +30dBm
Construction	High impact ABS plastic in woven polyester case
Dimensions	7.25" x 5.5" x 4.5" in case
Weight	3 lbs. with battery

T-Bug® Digital Signal Identifier



0134-0500

- Used to detect digital signals on twisted pair cables, identify and isolate digital pairs for special handling and help technicians avoid accidentally putting pairs out of service
- Operation is non-invasive and does not involve metallic contact so there's no risk of service interruption
- Simple to use – just place the probe between the pairs in question
- Differential amplifier saves time by allowing the technician to determine whether the signal is truly present or is an induced signal from adjacent pair
- False readings due to noise are virtually eliminated
- Continuous self test ensures that the unit is functioning properly
- Emits both visible and audible indication when digital signals are present
- Patented

CAT. NO.	UPC NO.	DESCRIPTION
0134-0500	60764	T-Bug® Digital Signal Identifier

Classic Tone and Probe Kits



701K-G

- 701K-G Kits include the 77HP-G High Power Tone Generator and the 200EP Tone Probe Amplifier in a rugged, woven nylon carrying case (700C)
- 601K-G Kit is a more basic version of the 701K-G kit, and includes the 77M-G Tone Generator and the 200B-G Tone Probe amplifier in a zippered nylon pouch

CAT. NO.	UPC NO.	DESCRIPTION
601K-G	49989	Classic Tone and Probe Kit, Basic
701K-G	49990	Classic Tone and Probe Kit, Standard
701K-G/6A	35775	Classic Tone and Probe Kit, Standard with ABN clips

Premium Tone and Probe Kit



801K

- Designed for more accurate wire identification, the 801K virtually eliminates power-related noise from the tone and probe operation
- Kit includes the 77HP/6A High Power Tone Generator and 200 FP Filter Probe in a convenient Cordura® case (700C).

CAT. NO.	UPC NO.	DESCRIPTION
801K	08690	Premium Tone and Probe Kit
801K/50	60466	Premium Tone and Probe Kit (50Hz)

Xpert Tone and Probe Kit

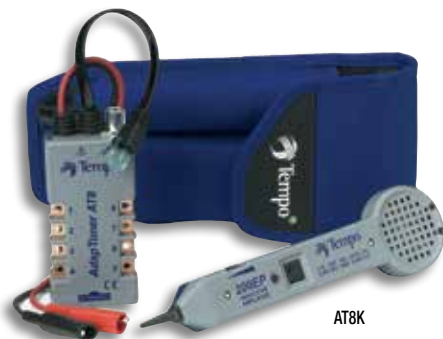


811K

- The Xpert Tone and Probe Kit includes the 77GX (or 77GX2) Tone Generator and 200XP Multi-Filter Tone Probe Amplifier in a rugged, woven nylon carrying case
- Especially suited for tracing in noisy environments

CAT. NO.	UPC NO.	DESCRIPTION
811K	36001	Tone and Probe Kit, Xpert
811K/6A-BOX	26375	Tone and Probe Kit, Xpert with ABN clips

AdapToner Kit



AT8K

- Designed for fast, accurate wire identification by combining the features of our tone generators and modular breakout adapter
- Kit includes the AT8 Modular Breakout Tone Generator and 200EP Inductive Amplifier in a convenient carrying case (700C)

CAT. NO.	UPC NO.	DESCRIPTION
AT8K	08694	AdapToner Kit