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# COPPER TELECOMMUNICATIONS TEST & TOOLS

Telecommunications is moving increasingly to fiber optic transmission, particularly for trunk connections, but copper conductors will be used for the foreseeable future for in-building and shorter links. Tempo Communications continues to invest in "copper" test instruments and tools to support the industry.

See also our range of hand-tools for manipulating and terminating copper cables...

# **NEW AT TEMPO**



CableScout (TM) CS-90 is a great hand-held TDR with features and a price point which means you should and can equip all your technicians with an advanced, highbandwidth, 1 ns precision cable diagnostics tool. Designed primarily for use in 75 ohm CATV systems but equally useful for 50 ohm coax and twisted pair cable testing.



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## **SIDEKICK® PLUS** COPPER AND DSL TEST SET

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

Stress Test

Resistance

Circuit Loss

• AC/DC Voltage

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

PART NO.

• Upper Layer Testing: Ping, Trace-route, HTTP, FTP

#### **STANDARD FEATURES:**

- Advanced Dual Trace Pulse TDR (Zero Dead Zone)
- Resistive Fault Locator (Detects up to 20MΩ)
- 1GΩ Leakage Test (Insulation Resistance)

CAT. NO.

• Longitudinal Balance Test

#### **ORDERING INFORMATION:**

52064728 1155-5001 Sidekick Plus Kit LCC 52064080 Sidekick Plus Kit SCC 1155-5003 52064131 1155-5005 Kit, Sk Plus, Impulse Noise, Step TDR 52064729 1155-5009 Sidekick Plus With Wideband 52064730 1155-5010 Sidekick Plus With Wideband & Adsl/Vdsl Sync LCC 1155-5011 Sidekick Plus With Wideband & Adsl/Vdsl Sync SCC 52066485 1155-5012 Sidekick Plus Pair Bonded Modem - Fully Featured 52070010 1155-5013 52070321 Sidekick Plus Pair Bonded Modem - Fully Featured SCC

DESCRIPTION



- Open Meter (capacitance) with option for Step TDR
- Loop Current
- Tracing Tone Generator
- Reference Tone



## SIDEKICK<sup>®</sup> PLUS DSL FAR-END DEVICE

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

#### **APPLICATIONS:**

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

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#### BENEFITS

- Helps qualify pairs for DSL 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

#### **KIT INCLUDES:**

- Sidekick<sup>®</sup> DSL Far-End Device Unit
- RJ45 to Telco clip leads
- Canvas carry case

#### \*FOR USE WITH THE SIDEKICK<sup>®</sup> 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

PART NO.	CAT. NO.	DESCRIPTION
52070454	1157-5001	Sidekick <sup>®</sup> FED Kit



## **1155** FAULT LOOP SIMULATOR

#### FEATURES —

- 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
- Rugedized 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

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52054909	1155-7001	Test Set

## 4-6-8 MODULAR ADAPTERS

#### FEATURES -

- Nylon-reinforced ABS plastic body
- Easy-to-read wire layout
- Removable/replaceable patch cord enables using your own special cable types
- Inline adapters allow testing active circuits
- Snagless plugs (where possible)
- Belt clip
- Barbed copper contacts keep alligator clips attached during testing

PART NO.	CAT. NO.	DESCRIPTION
52051670	PA1902	RJ45 Modular Adapter (8-way)
52051671	PA1903	RJ11 Modular Adapter (6-way)
52086505	PA1921	UK Modular Adapter (6-way)



## SIDEKICK®T & ND

#### **FEATURES** -

- 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:**



#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
50608530	1144-5000	Sidekick T&ND Test Set
52038822	1134-10025	Case

## SIDEKICK® T & N

#### FEATURES ·

- 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	O to 82 dBrnC	
Weight	2 lbs.	lbs. Loop Current		
	Rx1: Reads 0 to 2000 Ω	Circuit Noise	O to 75 dBrnC	
Resistance	Rx1K: Reads 0 to 2 $M\Omega$	Circuit Loss	-15 to +1 dB	
Leakage	Rx10K: Reads 0 to 20 $M\Omega$	Power Influence	50 to 100 dBrnC	
DC Voltage	O to 300 volts DC	Operating Temp.	-4°F to +140°F	
AC Voltage	0 to 300 Vrms	Power	Four AA batteries	



SIDEKICK<sup>®</sup> T&ND

Tempo

PART NO.	CAT. NO.	DESCRIPTION		
R50605263	1137-5002	Sidekick T&N		
50607519	1131-0202	Test Leads		
52038822	1134-10025	Case		



## SIDEKICK<sup>®</sup>7B

#### FEATURES

- 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:**

Dimen- sions	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 $M\Omega$
DC Voltage	O to 100 Volts DC
AC Voltage	O to 200 Vrms
Stress Test	O to 82 dBrnC



#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION			
50605256	1134-5029	Sidekick 7B			
52038822	1134-10025	Case			
50607519	1131-0202	Test Leads			

## SIDEKICK<sup>®</sup> V.O.C.

#### FEATURES -

- 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 2000Ω Rx1K: Reads 0 to 2 MΩ
Leakage	Rx10K: Reads 0 to 20 $M\Omega$
DC Voltage	O to 100 Volts DC
AC Voltage	0 to 200 Vrms
Stress Test	O to 82 dBrnC
Operating Temp.	-4°F to +140°F
Power	Four AA batteries



PART NO.	CAT. NO.	DESCRIPTION
50605270	1143-5000	Sidekick V.O.C
52038822	1134-10025	Case

# **CABLE & SERVICE** TESTING

## TM-700 TELE-MATE™ TELEPHONE TEST SET

#### FEATURES -

- Complete telephone set with ringer
- Phone-to-phone intercom, compatible with other SmartIntercom<sup>™</sup> 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
- Pair tracing 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 (not included)
- Quick release belt-clip

#### **SPECIFICATIONS:**

TECHNICAL SPECIFICATION	•	ΤE	Cł	Ш	NI	C,	AL	SF	ΡE	CI	FI	C.	AT	10	N	1
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LENGTH	9.25" (235mm)
WIDTH	2.5" (64mm)
HEIGHT	3.25"(83mm)

PART NO.	CAT. NO.	DESCRIPTION
52061409	TM-700	TM-700 Tele-Mate™ TELEPHONE TEST SET
52063087	TM-7001	BUTT SET (SML CLIPS & BOX) (TM-700I)
52063088	TM-700UK	BUTT SET (UK PLUG & BOX) (TM-700UK)



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\*

## TM-500 TELE-MATE<sup>™</sup> TELEPHONE TEST SET

#### **FEATURES** -

- Luminescent (glow-in-the-dark) keypad
- Can be used safely on a DSL enabled 32 digit last number redial and pause line
- High Impedance Monitor for monitoring line without disrupting existing traffic
- Over voltage and over current protection
- Tone and Pulse dialing

- Line powered, no battery needed
- Polarity test with LED indicator
- 10 number speed dial
- Adjustable volume control plus mute
- Flash to generate a timed break recall • Headset (included) for hands free
- operation
- RJ11 socket
- Quick release belt-clip

#### **SPECIFICATIONS:**

#### TECHNICAL SPECIFICATIONS

LENGTH	9.25" (235mm)
WIDTH	2.5" (64mm)
HEIGHT	3.25"(83mm)

PART NO.	CAT. NO.	DESCRIPTION
52061369	TM-500	Telephone Test Set W/ ABN "Bed-Of-Nails" Croc Clips (POP)
52062073	TM-500i	Telephone Test Set W/ Small Croc Clips (Boxed)
52063086	TM-500UK	BUTT SET (TM500 UK PLUG & BOX)

# NAUTILUS TEST SETS

Nautilus range products are "real-world hardened" to deliver reductions in Whole Life costs. Each product includes a "shell" designed to breathe and safeguard the functional elements from water, dust, impact and humidity and temperature change.

Water resistant to IP67, they can be used in heavy rain or even dropped in a puddle.

Tough and drop resistant, they are designed for years of hard use literally "in the field".

With simple controls, placed in optimal positions for good ergonomics, they are comfortable and easy to use.

Now built for over two decades these are proven "real-world" tough products that have their hardened shells like their namesake the "Nautilus" but their internal functions have been updated over the years to match the changes in the telecommunications networks.



#### FEATURES/SPECIFICATIONS:

	PE930	PE945	PE961
Digital Services Detection and Lockout			$\checkmark$
High voltage warning		$\checkmark$	$\checkmark$
Speaker-phone with volume control		$\checkmark$	$\checkmark$
Luminescent keymat			$\checkmark$

#### ALL THREE INCLUDE: -

- Waterproof (IP67, buoyant)
- Ten-number speed dial memory (32 digits)
- Microphone mute
- Unique quick-release belt clip
- Audible and visual mode indicators
- Polarity test in any mode
- Chemical resistant
- Digital safe line monitor

- 3-year warranty
- Last number redial
- Precise hook flash
- Premium cordset with bed-of-nails and piercing pin clips
- Tone or pulse dialing
- Two-tone ringer with adjustable pitch
- Built-in DSL filter
- Luminescent keymat





#### A340, D350 & D361 SPECIFICATIONS:

	A340 ETSI	A340 ETSI LCC	D350 90ms	D361	D361 LCC
DigAlert 3			$\checkmark$	$\checkmark$	$\checkmark$
Loudspeaking	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Hands Free				$\checkmark$	$\checkmark$

#### ALL FIVE INCLUDE:

- High voltage alarm and lockout
- Waterproof IP67, buoyant
- "ETSI" European telephony setup, with 90 ms TBR (other options available)
- Ten dialing memories (up to 32 digits each)
- Microphone mute
- Polarity test in any mode
- Glass reinforced nylon belt clip

- Audible and visual mode indicators
- Ambidextrous operation of the ergonomically placed controls
- DTMF and pulse dialing (change of mode can be stored in memories)
- Three year warranty
- Options with Angled-nose, bed-of-nails (ABN) large crocodile clips (LCC) or small crocodile clips (SCC)

PART NO.	CAT. NO.	DESCRIPTION
52040076	M0401/10	DIGALERT 361 ETSI ADSL SCC
52059247	M0401/20	DIGALERT 361 ETSI ADSL LCC
52059241	M0402/10	DIGALERT 350 ETSI ADSL SCC
52059242	M0404/10	ALERT 340 ETSI ADSL SCC
52059246	M0404/20	ALERT 340 ETSI ADSL LCC

## **CABLESCOUT<sup>™</sup> TV220** TDR Cable Tester For CATV

#### **FEATURES** -

- Easier-to-use GUI interface requires little or no training
- PC application is compatible with Windows 10\*
- Excellent clarity and trace functionality makes it easier to identify faults on-screen and determine noise versus the fault
- High 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
- Fast trace update rate allows you to see more dynamic faults (5 times/sec.)
- Light weight and long charge life with the lithium-ion battery
- Higher capacity to hold 200 traces
- USB interface for trace download
- TestWizard™ one-button cable analysis
- Automatic Return Loss Measurements
- Automatic Multiple Event Marking
- High-Resolution, Short Pulse Width (1 ns)
- Rugged enough to withstand everyday use in the field

#### **ORDERING INFORMATION:**



\*Must be installed in "admin" mode and may require re-installation following updates due to Microsoft enforced changes \*\* Overvoltage category I, 60V max without use of supplementary isolation device. Contact Tempo if you require such.

PART NO.	CAT. NO.	DESCRIPTION
52061155	TV220	TDR for CATV Broadband
	TV220-0350	Soft Carrying Case
	1155-1010	Power Supply, AC-DC
	174173401	Vehicle DC Adapter/Charger

#### **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		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	
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	Power		
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	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	
	Resolution: 640 x 440 (281,600 pixels)			5011, Class A; EN60555-2
Display 4.5 cm (0.15 ft.) minimum Display Ranges – Twelve display rang (1.8 m) to 12,000 ft. (3,658 m), plus sin	Type: High contrast LCD Backlight: Operator switchable		Height	9.5 inches; 24cm
	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 – USB-B socket	Dhusical	Width	11.5 inches; 30 cm
		Physical	Depth	3.5 inches; 9 cm
	Distance Measurements – Meters, feet, nanoseconds		Weight (Net)	6.4 lbs.; 3kg

# **CABLESCOUT** CS90



THE everyday, every technician, copper network TDR. Aimed squarely at the CATV technician who deals with 75 ohm COAX all day but also suitable for use in 50 ohm COAX or twisted pair fault finding applications. The CS90 provides a perfect mix of simplicity of use, ergonomics, accuracy and high dynamic range with

#### **FEATURES** -

- Large, Color, HiRes Backlit Display (Readable Outdoors in Bright Conditions)
- Splash, Dust, and Shock-Resistant Packaging
- Zero Dead Zone
- 1, 5 and 25 ns pulse widths standard
- FastFind™ whole cable overview
- Protected 75 Ω F Connector
- Intermittent Fault Location
- Context-Sensitive Help Available for All Functions
- Save a virtually unlimited number of traces to the SD Card (included) or USB drive
- Small, Portable, Lightweight Package
- Internal Cable Types for Fast, Accurate Testing
- Rechargeable Lithium Ion Battery for 8+ hrs. of use
- Span View Window Shows Entire Cable & Navigation
- Narrow Pulse Width Enables Near-End Fault ID

#### BENEFITS

- Locate Damage in Drops & Bad Passive Devices
- Find Impedance Mismatches
- (e.g. corrosion, water or cable type changes)



#### **BASE MODEL KIT INCLUDES:**

- CS90 "CableScout®"
- DC charger (12 V socket)
- AC PSU (universal)
- 2 metre COAX patch lead
- F type barrel connectors

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#### **CS90 SPECIFICATIONS:**

•	Shoulder	Strap
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- Basic Carry Bag
- SD Card (included)
- 1 ns pulse width for precision
- Determine Length of Cable

MPO

14/4

/11/U; Trilogy 59/6/7/11

#### **PRO KIT EXTRAS:**

- SV-03 Adaptor
- BNC Adaptor
- Alligator clip cord

Output Pulse	
Test Signal	Pulse
Туре	1/2 Sine Wave
Width	1 ns, 5 ns, 25 ns
Impedance	75 Ohm
Voltage	>4V Peak
Input	
Protection*	+/- 400VDC
Filtering	1, 2, 4, 8, 16, 32
Physical	
Size	262mm x 162mm x 55mm
Weight	900g
Operating Temp.	-20 to + 50 (0 to 30 charging) Celcius
Storage Temp.	-20 to +60 C

Performance	
Horizontal Resolution	204 ps (approx. 3"/75 mm)
Maximum Distance	9.5 kft (2.9 km) @ Vp=0.93
Display Resolution	800 X 480
Display Size	180mm 7" diagonal
Backlight Brightness	1000nits
Test Result Storage	SD card or USB drive
Battery Type	Li-Ion polymer
Battery Capacity	30 Wh; sufficient for >8 hr use with typical backlight
Battery Life	Battery Management System optimizes charging and lifetime

\* Overvoltage category I, 60V max without use of supplementary isolation device. Contact Tempo if you require such.

96% 📼

106.6m

C590

VP=0.820

PART NO.	CAT. NO.	DESCRIPTION
55500017	C590	CableScout 90 TDR (Pro kit)
55500220	C590B	CableScout 90 (base kit)

## **WIRE & CABLE IDENTIFICATION** CLASSIC 77 SERIES TONE GENERATORS

#### FEATURES/SPECIFICATIONS:

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

\*Dual line on 77HP models, single line on 77M models



## **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.

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52047488	77HP-G	77H-GP Tone Generator (standard alligator clips)
52047489	77HP-G/6A	77HP-G/6A Tone Generator (ABN Clips)
52047490	77M-G	77M-G Tone Generator (Basic)
50086863	77CS	Leather Belt Holster for Classic 77 Series Tone Generators

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## **REPLACEMENT** PIERCING CLIPS

#### **FEATURES** -

- These traditional telco-style clips can be used with almost any style cordsets
- Clips feature angled 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

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
50087100	RPC	Piercing Clips



## **STATION MASTER PRO** 24B

#### FEATURES -

- Troubleshoot irrigation systems
- Activate and cycle solenoids
- Test solenoids for continuity
- Send tone to identify wires
- Measure clock voltage
- Low battery indicationEasy-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	28VAC
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	2x 9V alkaline batteries
Battery Life	3 hours continuous
Operating/Storage Temp.	32°F - 122°F (0° - 50°C)

PART NO.	CAT. NO.	DESCRIPTION
52025220	24B	Station Master Pro





## **STATION MASTER PRO KIT** 24BK

#### FEATURES —

- 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
- Locates underground solenoids

#### SPECIFICATIONS:

Minimum voltage for clock LED15 VACMinimum Battery while Testing10.5 VDCMaximum Input Voltage between Test Leads28 VACSolenoid activate output voltage27 to 18 VACBattery3x 9V Alkaline BatteriesOperating/storage temp.32°F to 122°F (0°C to 50°C)Relative humidity (max.)80%			
Maximum Input Voltage between Test Leads       28 VAC         Solenoid activate output voltage       27 to 18 VAC         Battery       3x 9V Alkaline Batteries         Operating/storage temp.       32°F to 122°F (0°C to 50°C)	Minimum voltage for clock LED	15 VAC	
Solenoid activate output voltage     27 to 18 VAC       Battery     3x 9V Alkaline Batteries       Operating/storage temp.     32°F to 122°F (0°C to 50°C)	Minimum Battery while Testing	10.5 VDC	
Battery     3x 9V Alkaline Batteries       Operating/storage temp.     32°F to 122°F (0°C to 50°C)	Maximum Input Voltage between Test Leads	28 VAC	
Operating/storage temp.32°F to 122°F (0°C to 50°C)	Solenoid activate output voltage	27 to 18 VAC	
	Battery	3x 9V Alkaline Batteries	
Relative humidity (max.) 80%	Operating/storage temp.	32°F to 122°F (0°C to 50°C)	
	Relative humidity (max.)	80%	

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52025221	24BK	Station Master Pro Kit

## **PROFESSIONAL GX SERIES** TONE GENERATORS

#### **FEATURES** –

- Microprocessor controlled precision tone generator
- Two-line polarity indication for fast outlet status check
- 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 angled nose clips with piercing pin and bed-of-nails connectors

PART NO.	CAT. NO.	DESCRIPTION
50605560	77GX	77GX Tone Generator with standard alligator clips
52082818	77GX2	77GX2 Tone Generator with ABN clips



## **ADAPTONER** MODULAR BREAKOUT TONE GNERATOR

#### **FEATURES** –

- 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
- Ideal for splitting tone across pairs for easier tracing of CAT5 and higher cables
- 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)

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
50086936	AT8	AdapToner Modular Breakout Tone Generator

Note: Not for use on energized AC wiring

## LAN TONER WITH HUB BLINK & DETECT

#### FEATURES -

- 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

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
50605836	AT8L	LAN Toner

Note: Not for use on energized AC wiring

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## **DATA MATE™** PRECISION TRACING TONE GENERATOR

#### **FEATURES** -

- Trace wire or cable without interfering with digital two-way cable or ADSL services
- The model 7780 Data Mateâ, ¢ 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.
- Useful for continuity testing and polarity testing, the 7780 provides the standard warble tone and talk

CONTINUITY

POLARIT

LOW BATTERY

PE7780

DATA MATE

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battery supply

- Line voltage and polarity indication
- High power tone output
- High purity tone signal
- Low crosstalk
- Low battery indicator
- Filter-isolated circuit ry
- 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 Impedence	3,500 ohms minimum, 25kHz to 1.1 MHz	
Mechanical		
Length	5.5" (140 mm)	
Width	2.25" (57 mm)	
Depth	1.0" (25 mm)	
Weight	0.38 lbs. (0.17 kg)	

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52082819	PE7780	Data Mate™ Tone Generator

Note: Not for use on energized AC wiring

## TONE PROBES SELECTION GUIDE

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





## **TOUGH & WATER** RESISTANT MULTI-FILTER TONE PROBE

#### **FEATURES** –

- The tough and water resistant 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<sup>®</sup>, which helps warn users if brought near hazardous AC power voltages and may be inaudible if using the advanced filtering (note, international models have this enabled by default - can be switched off).

#### **ORDERING INFORMATION:**

SOOXP

PART NO.	CAT. NO.	DESCRIPTION
52061827	500XP	500XP Pair Tracing Probe (POS)
52061826	500XPB	500XP Pair Tracing Probe (Boxed)
52062626	H5001	Replacement Headset
52066899	500XPH	500XP Pair Tracing Holster
52082917	500XP-BT	500XP With International Presets (acAlert active)

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## TONE PROBE AMPLIFIERS

#### **FEATURES** -

- Tone Probe Amplifiers permit wire and cable identification without having to make direct metallic contact with the conductor in conjunction with any tone generator
- All models feature high sensitivity and 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 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

PART NO.	CAT. NO.	DESCRIPTION
52047483	200B-G	Tone Probe Classic, Basic
52047484	200EP-G	Tone Probe, Standard, with Headset Jack & Flashlight
50086707	2000	Leather Belt Holster for 200 Series Tone Probe Amplifiers





## FILTER TONE PROBE

#### **FEATURES** -

- By selectively filtering out 60Hz (or 50Hz) and its harmonics, the 200FP can be used with any tone generator for faster and more accurate cable and wire identification
- Slim and 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

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION	
50086723	200FP	Filter Tone Probe (60Hz mains)	
50604678	200FP/50	Filter Tone Probe (50Hz mains)	



### **MULTI-FILTER** TONE PROBE

#### **FEATURES** -

- Single button selects between default mode and two kinds of powerful noise filters
- Filtering means faster and more accurate pair tracing
- Digital signal processor for accuracy and sensitivity
- Durable and light weight
- Audible and visible signal detection
- Continuous wide-range volume control
- Butt set terminals
- Field replaceable tip and 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 (983 Hz for the international version)

PART NO.	CAT. NO.	DESCRIPTION	
52024457	200XP	Multi-Filter Tone Probe (60Hz mains, 577Hz narrowband)	
52025467	200XP/50	Multi-Filter Tone Probe (50Hz mains, 983Hz narrowband)	

## **REPLACEMENT PLASTIC** TIPS FOR 200 SERIES PROBES

#### **FEATURES** –

- 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



#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION	
50087118	RPT-1	Plastic Tips for 200B, 200EP, 200FP and 200XP	
52066900	RPT-3	Replacement tips for 500XP.	



RPT-3

## **REPLACEMENT METAL** TIPS FOR 200B & 200EP PROBES

#### **FEATURES** -

- 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

# RMT-1

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#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
50087096	RMT-1	Metal tips for 200B and 200EP Probes
52066901	RMT-3	Replacement metal tips for 500XP

RMT-3



## **PRECISION** TONE GENERATOR

#### **FEATURES** –

- 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
- The unit supplies talk battery to power two telephone test sets (buttsets) for communications over inactive pairs
- 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 and protective woven polyester carrying case with shoulder strap
- Battery-operated (1 6V lantern included)

#### **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			



## TONE PROBES KITS SELECTION GUIDE

	PRODUCT	CABLE PAIR ID (CPI)	CADENCE CHANGE FOR MULTI USE	TALK BATTERY	CONTINUITY	POLARITY	IP RATING
	601K-G	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	200B-G						
	77M-G						
	701K-G	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	200EP-G						
z	77HP-G						
0.	711K	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
LA1	200EP						
N	77GX						
TELECOMMUNICATION	801K	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Σ	200FP						
U U U	77HP						
EL	802K	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
-	200FP						
	AT8L						
	811K	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	200XP						
	77GX						
	500/600	$\checkmark$	$\checkmark$		$\checkmark$		IP67
	TP500						
	TG600						

 $\checkmark$  $\checkmark$  $\checkmark$  $\checkmark$  $\checkmark$ AT8LK DATA, COAX & ALARM 200EP AT8L  $\checkmark$ **402K** 402T 402R  $\checkmark$  $\checkmark$  $\checkmark$ 620K 200EP 620

## TONE PROBES KITS SELECTION GUIDE

	PRODUCT	BATTERY LIFE	OUTPUT V PK-PK	DISTANCE RANGE		ADDITIONAL FEATURES
	601K-G		10.2V	~13km	1 year	
	200B-G	> 50 hours				Modular test lead and croc clips
	77M-G	> 50 hours				52VDC voltage protection
	701K-G		6.7V	~ 15km	1 year	150VDC voltage protection
	200EP-G	> 50 hours				Headset socket 2.5mm
_	77HP-G	> 50 hours				LED torch for work in dark closets
0	711K		High 21.5V Low 8.8V	~ 15km	1 year	
TELECOMMUNICATION	200EP	> 50 hours				Visible and audible signal strength
N	77GX	> 50 hours				Removable modular jack lead
NU	801K		10.2V	~ 17km	1 year	50Hz AC mains filter
Σ	200FP	> 50 hours				
	77HP	> 50 hours				
E	802K		6.0V	~ 17km	1 year	50Hz AC mains filter
F	200FP	> 50 hours				Built in Modular adaptor (access all 8 wires in Data cable)
	AT8L	> 25 hours				Hub/PC link
	811K		High 21.5V Low 8.8V	~ 15km	1 year	
	200XP	> 50 hours				1kHz band pass filter (Discriminator mode)
	77GX	> 50 hours				50Hz AC mains filter
	500/600		25.7V	~ 40km	3 years	
	TP500	> 60 hours				Headset option
	TG600	> 200 hours				Pure sine wave reducing cross talk
5	AT8LK		6.0V	~ 15km	1 year	Hub / PC detect
RM	200EP	> 50 hours				Built in Modular adaptor

DATA, COAX & ALARM

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	<b>AT8LK</b>		6.0V	~ 15km	1 year	Hub / PC detect
	200EP	> 50 hours				Built in Modular adaptor (access all 8 wires in Data cable)
	AT8L	> 25 hours				Hub / PC blink
	402K		20.0V	8km inductive	1 year	
	402T	> 25 hours	20.0V	15km direct		ID terminated & non terminated cables
	402R	> 25 hours	20.0V	5km magnetic		50Hz AC mains filter
•	620K		9.3V	~ 11.5km	1 year	
	200EP	> 50 hours				Latching facility for intermittent faults
	620	> 100 hours				Test normally open and normally closed switches

## **CLASSIC** TONE & PROBE KIT

#### FEATURES -

- 701K-G Kits include the 77HP-G High Power Tone Generator and the 200EP Tone Probe Amplifier in a rugged and 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



701K-G

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52047486	601K-G	Classic Tone and Probe Kit, Basic
52047487	701K-G	Classic Tone and Probe Kit, Standard
52047489	701K-G/6A	Classic Tone and Probe Kit, Standard with ABN clips

## **PREMIUM** TONE & PROBE KIT

#### **FEATURES** -

- 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)

PART NO.	CAT. NO.	DESCRIPTION
50086901	801K	Premium Tone and Probe Kit
50604660	801K/50	Premium Tone and Probe Kit (50Hz)





## **XPERT** TONE & PROBE KIT

#### **FEATURES** –

- Designed for fast and 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)

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52025323	811K	Tone and Probe Kit, Xpert
52055997	811K/6A	Tone and Probe Kit, Xpert with ABN clips



## AdapToner KIT

#### FEATURES

- Designed for fast and 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-G Inductive Amplifier in a convenient carrying case (700C)

PART NO.	CAT. NO.	DESCRIPTION
50086944	AT8K	AdapToner Kit



## LAN TONER

#### **FEATURES** –

- Designed for the network installation and maintenance professional, the LAN Toner sends tone and blinks HUB, Switch Port, and PC activity lights for fast identification. This kit can be used on any wiring system including Datacom, Telecom, security/alarm, audio and CATV
- Kit includes the AT8L LAN Toner and the 200GX Inductive Amplifier in a rugged and woven nylon carrying case (700C)

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
50605843	AT8LK	LAN Toner Kit



## CATV CABLE TONE TEST KIT

#### **FEATURES** -

- Designed specifically for the CATV industry, this kit allows you to tone through splitters, directional couplers and traps
- Simple to use, the 402K provides accurate results and will eliminate long delays trying to figure out non-tagged or mis-tagged cable drops
- Kit includes one transmitter, one receiver, one male F-to-F connector adapter cable, one male F-toalligator clip adapter cable and a carrying case (700C)
- Transmitter and receiver are equipped with female F-connectors
- Three methods of signal reception: electrostatic pickup for non-terminated cables, electromagnetic pickup for terminated or shorted cables and direct connection when identifying through passive devices such as splitters
- In continuity mode, provides both audible tone and LED display
- Identifies the presence of AC or DC voltage on the cable under test
- Four selectable tone outputs for multiple line identification





#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
50086774	402K	CATV Cable Tone Test Set
50603760	402T	Transmitter
50603760	402R	Receiver
50603744	CS9	Male to male F-connector adapter cable
50603787	CS19	F-connector to alligator clip

## TONE & PROBE CARRYING CASE

#### FEATURES —

- Allows you to build your own kit using any tone generator and 200 Series probe
- Durable woven nylon
- Fits belts up to 3" wide

PART NO.	CAT. NO.	DESCRIPTION
50086839	700C	Tone & Probe Carrying Case



## **STRUCTURED WIRING TESTERS** NETcat<sup>®</sup> PRO 2 NC-500

#### FEATURES —

- Test and troubleshoot data, telephone and coax wiring
- NETcat Pro 2 Additional Features:
  - Gigabit device capability detection (also detects 10baseT and 100baseT)
  - Cable type, velocity of propagation library, user editable
  - Power over Ethernet (PoE) detection
  - Memo pad
- Detect split pairs, short circuits, broken and crossed wires
- Step TDR technology shows length to open or short of all pairs
- Test shielded twisted-pair (STP), unshielded twisted-pair (UTP) & coaxial cables.
- Test patch cords and remote jacks
- Touch-screen control, included stylus slots into main unit
- Large icons ensure easy use with your finger too
- Large 3" (76mm) backlit high-contrast (user adjustable) monochrome display is highly visible in dark or brightly lit areas
- Remote test and ID unit stores in base of main unit
- Can identify up to 8 remote test ID units (the 7 extra ID units are available in the NC-510 accessory kit along with carrying case)
- Tone generator with four selectable precision frequency tones, compatible with Tempo advanced digital signal processing probes
- Operates on single 9V battery with low battery indication





#### **SPECIFICATIONS:**

Dimensions	3.3" x 1.4" x 6.7" (8.5 cm x 3.5 cm x 17 cm)
Weight	0.45 lb. (200 g)
Power	9V Alkaline battery (PP3)
User Interface	
Display LCD	Dot Pixels: 128 x 128 dots
Viewing Area	60.0 x 58.4
Backlight	White LED
Buttons	LCD touch-screen, Single momentary contact push button
Environmental	
Operating Temp	O°C to 50°C
Storage Temp	-20°C to 70°C
Interface	RJ45 shielded jacks
Interface Connections	RJ45 shielded jacks F-type threaded female coaxial connectors
Connections	F-type threaded female coaxial connectors User selectable based
Connections TDR	F-type threaded female coaxial connectors User selectable based on a known cable length.
Connections TDR Calibration	<ul> <li>F-type threaded female coaxial connectors</li> <li>User selectable based on a known cable length.</li> <li>40% to 100% in steps of 1%</li> </ul>
Connections TDR Calibration TDR Range	<ul> <li>F-type threaded female coaxial connectors</li> <li>User selectable based on a known cable length.</li> <li>40% to 100% in steps of 1%</li> <li>0 to 2000 ft.</li> </ul>
Connections TDR Calibration TDR Range Resolution Accuracy to	<ul> <li>F-type threaded female coaxial connectors</li> <li>User selectable based on a known cable length.</li> <li>40% to 100% in steps of 1%</li> <li>0 to 2000 ft.</li> <li>1 ft. (0.3 m)</li> </ul>

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52024556	NC-500	NETcat Pro 2 Digital VDV Wiring Troubleshooter
52024661	NC-510	NETcat Pro 2 Accessory Kit w/carry case
52057701	NC-520	Netcat Pro 2 NC-500 Main Unit plus NC-510 accessory set

#### **NC-500 CONTENTS:**

- NETcat Pro 2 main unit with stylus
- Removable remote jack and patch lead test and ID unit
- Twisted-pair (modular RJ45), coax (F) and alligator clip test cords
- 9V alkaline battery

#### NC-510 NETCAT PRO 2 ACCESSORY KIT CONTENTS:

- Seven additional remote jack test and ID units, RJ45 and F (male)
- Carrying case to hold additional remote test ID units and content of NC-500 main kit

#### NC-520:

- Netcat Pro 2 Main Unit With Stylus
- Removable Remote Jack And Patch Lead Test and Id Unit
- Twisted-Pair (Modular Rj45), Coax (F) And Alligator ClipTest Cords
- Seven additional remote jack test and ID units, RJ45 and F (male)
- Carrying case to hold additional remote test ID units and content of NC-500 main kit
- 9V Alkaline Battery



## **NETcat®** MICRO NC-100

#### **FEATURES** -

- Tests shielded twisted pair (STP), unshielded twisted pair (UTP) and coaxial cables
- TIA/EIA standard wiring pair verification
- Detects shorts, opens, reversed polarity, crossed and split pairs
- Generates three distinct, selectable digital tone patterns for cable tracing and troubleshooting
- Tracing modes can be adjusted for high performance LAN cables
- Complete set of connector types standard (telephone, LAN and coax)
- Nested remote allows end-to-end testing of all wiring types
- Simple testing of LAN wiring and phone lines
- Detection of common wiring and connector errors
- Warning if connected to voltage source
- Checks for reversed telephone wires

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52024541	NC-100	NETcat® Micro Digital Voice Data & Video Wiring Tester

#### **SPECIFICATIONS:**

Dimensions	150 x 70 x 33mm		
Weight	220g including remote unit and battery		
Power Source	9V Alkaline battery (PP3)		
User Interface		Connections	RJ45 8 way shielded socket, RJ12 6-way socket F-type threaded female coaxial connectors
Display LCD	Icon and seven segment type	Network Split Pair Detection	Minimum detectable length of split cable 2 to 3 meters (5 to 10 ft.) depending on cable tupe and length
Viewing Area	Green LED		
Backlight	White LED	Pair Tracing Tones	Alternating frequencies of 577Hz and 983Hz are produced at three user selectable rates. Designed for standard tone probes, but compatible
Buttons	Four momentary contact push button	101125	with precision digital Tempo tone probes. Can be output on all pairs, individual pairs or individual wires.
Environmental			
Operating Temp	0°C to 50°C		
Storage Temp	-10°C to 60°C		

Tel 1

Ntwk

NC-100

Coax

Tone



## WIREMAP TESTER

#### FEATURES —

- Quickly identifies opens, shorts, reversals and transposed pairs
- Economical tester includes all the basic functions
- Connecting the receiver unit automatically activates the test process
- Sequencing red and green LEDs provide fast, accurate and simple-to- understand results
- Alerts the technician if connected to an active circuit without harming the unit
- Connect any eight-position modular plug to the appropriate jack on the transmitter and a sweeping tone signal is applied to all pairs
- At the far end of the cable, use any Tempo Communications inductive amplifier (probe) to locate the corresponding plug or jack
- Battery operated (9V not included)

PART NO.	CAT. NO.	DESCRIPTION
52082812	468	Wiremap Tester
50603825	468C	Carrying Case for the Wiremap Tester
52082813	468T	Transmitter
52082814	468R	Receiver
50603817	CSIO	Modular Adapter Cable



## LAN CABLE-CHECK<sup>™</sup>

#### **FEATURES** -

- Identifies cross-over telephone connections
- Automatically scans when cables connected and unit turned on
- Two scan speeds: fast or slow
- Maps connector and cable pin-out
- Tests cables up to 1,650' or 500m
- Can also test RJ11 connections with an RJ11 adapter (not included)
- 2, RJ45 patch cords and 9V battery included
- Contained in a durable nylon carrying case with belt loop

#### **ORDERING INFORMATION:**

PART NO.	CAT. NO.	DESCRIPTION
52046967	PA1574	LAN Cable-Check™ Tester



## LAN & A/V CABLE-CHECK

#### FEATURES —

- Tests RJ45 patch cords and network installations to identify good connections, opens, shorts or cross-connections
- Identifies data and telephone connection schemes
- Maps cable pin-out and detects split pairs
- Tests continuity of cords and installed cable runs
- Identifies good connections, opens and shorts
- Automatic scanning
- User selectable slow or fast speeds
- Quickly check cable installations and patch cords
- Easy-to-use with clear LED read-outs

#### **INCLUDES:**

- 2 RJ45 patch cords
- 75-ohm male terminator
- Cable TV "F" female adapter
- 9V battery
- Durable, nylon carrying case
- RCA to CATV "F" adapter



PART NO.	CAT. NO.	DESCRIPTION
52046970	PA1594	LAN and A/V Cable-Check™

## **NOTES:**


## **NOTES:**






## ant Profitools s.r.o. Elektrikářské a elektroinstalační nářadí

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