

# Voice • Data • Video

For industry-leading tools for datacom, telecom and fiber optic applications, Greenlee has the complete product line. Choose from a large line-up of premium installation tools, tone generators and tele-communication test sets, network certification instruments and fiber optic test equipment – produced and field-tested to perform from start to finish.

FEATURED Products

255



**NEW**  
802K Digital LAN  
Tracing Kit

257



**NEW**  
NETcat® Pro  
NC-500

271



Sidekick® Plus

288



**NEW**  
920XC Handheld  
Singlemode OTDR



## COPPER TERMINATION

### Center Conductor Cutter



- Precisely trims the center conductor of coaxial cable to a standard length of 3/16" (5 mm).
- Cushioned-grip handle for comfortable use.
- Heat-treated for long life.

CAT. NO.	UPC NO.	DESCRIPTION
45481	45481	Center Conductor Cutter

#### SPECIFICATIONS

Stamped from high-carbon tool steel  
Rust-resistant black oxide finish

### Cable Cutter, 8 AWG



- Designed to cut solid, stranded wire up to 8 AWG (10 mm<sup>2</sup>) and multi-conductor cable up to 1/2" (12.7 mm) in diameter.
- Curved cutting blades ensure an easy cut.
- Economically priced.
- Cushioned-grip handle for comfortable use.
- Heat-treated for long life.
- Stamped and precision ground from high-carbon tool steel.
- Return spring.
- Locking latch.
- Rust-resistant black oxide finish.

CAT. NO.	UPC NO.	DESCRIPTION
45482	45482	Cable Cutter



#### 45471 Professional Installation Kit

This complete kit includes our 8 AWG Cable Cutter plus all the tools, connectors and tests for installing and maintaining most types of communications cabling. See page 263 for details on our Professional Installation Kit.

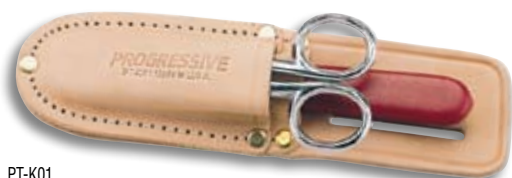
### Cable Cutter



- Easily cuts heavier copper and aluminum cables up to 2/0 (70 mm<sup>2</sup>).
- Plastic coated, high-leverage handles for easier cuts.
- Heat-treated for long life.
- Made of heavy-duty forged steel.
- Precision-ground, shear-action, curved cutting blades.
- Rust-resistant black oxide finish.
- Made in the USA.

CAT. NO.	UPC NO.	DESCRIPTION
727	31291	Cable Cutter

## Cable Splicer's Knife and Splicer's Snips



PT-K01



PT-T01



PT-T02

- Cuts cable, telephone wire and strips insulation.
- Tough, tempered steel knife blade holds its edge longer.
- Full-sized knife handle provides greater comfort.
- Knife has a short, coping-type blade made of the finest cutlery steel.
- Scissors have an upper blade with two stripping notches to strip most insulations from 19-24 AWG.

CAT. NO.	UPC NO.	DESCRIPTION
PT-K01	08704	Scissors and Knife Kit with Two-Pocket Pouch
PT-T01	08707	Cable Splicer's Knife
PT-T02	08708	Electrician's Snips
PT-C01	08702	Two-Pocket Leather Pouch

## Wire Strippers/Cutter



1916

- Precision-ground blades ensure consistent stripping and cutting.
- Heat-treated for long life.
- Cushioned-grip vinyl handle for comfortable use.
- Serrated nose grip for wire pulling and straightening.
- Stamped from high-carbon tool steel.
- Pivot joints have hardened steel bushings.
- Rust-resistant black oxide finish.

CAT. NO.	UPC NO.	DESCRIPTION
1916	31891	20-10 AWG (0.8 to 2.6 mm dia.) Solid Wire
1917	31890	26-16 AWG (0.4 to 1.3 mm dia.) Solid Wire
1918	31889	30-22 AWG (0.25 to 0.64 mm dia.) Solid Wire

## Pro Wire Strippers



1950



1955

- Strips the outer jacket off both solid and stranded wire.
- Machined stripping stations with a positive stop provide precise stripping diameters.
- Ergonomically designed, extra-long cushioned handles add superior comfort and reduce hand fatigue.
- Long curved cutter blades reduce force required by 25% and can cut NM in a single cut.
- Lock tab protects cutting edges during storage.
- Pliers nose for working with small nuts and pulling wire.
- Hole in jaws for looping wires.
- Opening stop prevents spring from disengaging.
- Easy-to-read graphics.
- Cuts screws.

CAT. NO.	UPC NO.	DESCRIPTION
1950	06852	Pro Wire Stripper 10-18 AWG
1951	06853	Pro Wire Stripper 22-32 AWG
1955	06857	Pro Plus Wire Stripper, 10-18 AWG
1956	10300	Pro Plus Stripper 8-16 AWG

## Kwik Stripper Flat Telephone Cable Cutter/Stripper



- Designed to cut and strip flat modular telephone cables (Silver Satin).
- Built-in cable stop/guide for consistent strip length.
- Heat-treated for long life.
- Cushioned-grip vinyl handle for comfortable use.
- 2- to 10-conductor capacity.
- Stamped from high-carbon tool steel.
- Rust-resistant black oxide finish.

CAT. NO.	UPC NO.	DESCRIPTION
45480	45480	Kwik Stripper Flat Telephone Cable Cutter/Stripper

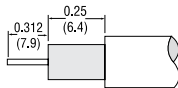


**45480**  
Typically used for Modular Plug Connectors (See page 244)



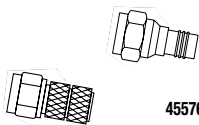
**430-500 Poly Line**  
The 430-500 poly line is the same 210 lb. (934 N) breaking strength line used in the larger buckets, and it comes in a tube with a prepunched hole for dispensing the line without tangling. The line can be blown into conduit and then used to pull in a larger pulling rope, or it can be used directly to pull in smaller wires.

## Kwik Stripper Coax Stripper — 2 level and 3 level

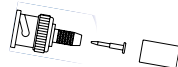
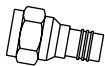


- Designed to provide precise, repeatable strips consistently.
- Prepares RG58, RG59, RG62, RG6 and many other types of coax cable.
- Strips braid and dielectric to 1/4" (6.4 mm).
- Blades are easily replaced in the field.
- Blade adjustment for cutting depth.
- Replaceable and interchangeable blade cassettes.

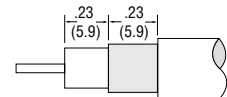
CAT. NO.	UPC NO.	DESCRIPTION
45576	45576	Kwik Stripper Coax Stripper - 2 Level
45577	45577	Kwik Stripper Coax Stripper - 3 Level
45040	45040	<b>R</b> Cartridge - 2 Level
45039	45039	<b>R</b> Cartridge - 3 Level



**45576 2 Level**  
Typically used for F-type connectors (See pages 245).  
Frame accepts only 2 level cartridges.



**45577 3 Level**  
Typically used for BNC-type connectors (See page 246).  
Frame accepts both 2 and 3 level cartridges.



## Kwik Stripper Twisted Pair Stripper



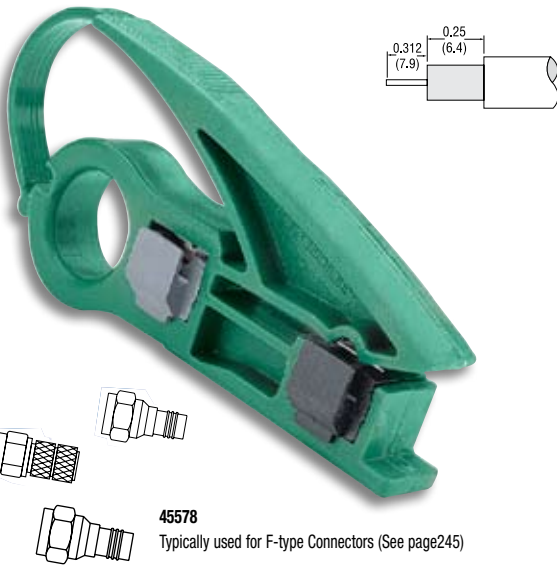
- No tool is better for trimming the jacket from twisted pair cable without damaging the individual conductors.
- Blade depth adjustment ensures precise cutting depth.
- Blade penetration controlled by tension loop.
- Strip length gauge.
- Made in the USA.

CAT. NO.	UPC NO.	DESCRIPTION
45579	45579	Kwik Stripper Twisted Pair Stripper





**45579**  
Typically used for Modular Plug Connectors (See page 244)

## Kwik Stripper CATV Cable Stripper

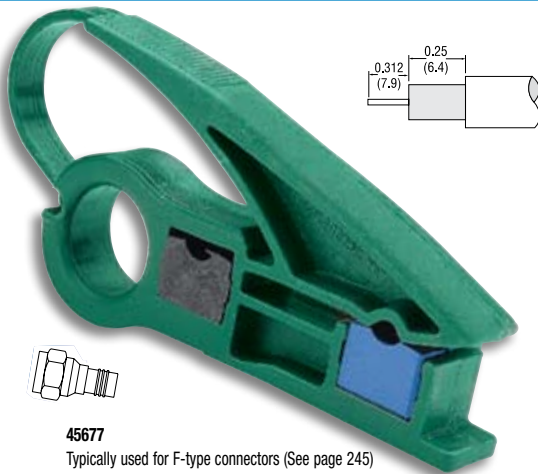


- Designed for the professional CATV cable installer, this stripper is perfect for high volume and uses replaceable stripping cartridges for RG6, RG59, RG11 and RG7 CATV cables.
- Pre-measured stops eliminate time-consuming measuring and trimming.
- No adjustments needed.
- Spare cartridge holder is conveniently built into the tool.
- Included with the tool, the RG6/RG59 cartridge strips cable jacket and dielectric to 1/4" (6.4 mm).
- Included with the tool, the RG11/RG7 cartridge strips cable jacket and dielectric to 1/4" (6.4 mm).
- Extra-large finger hole.
- Made in the USA.




CAT. NO.	UPC NO.	DESCRIPTION
45578	45578	Kwik Stripper CATV Cable Stripper
45580	45580	 Cartridge RG6/RG59
45581	45581	 Cartridge RG11/RG7

**45578**  
Typically used for F-type Connectors (See page245)

## Kwik Stripper CATV/UTP Stripper



- Used for both unshielded twisted pair (UTP) and coaxial cabling, this tool reduces the number of tools needed without any adjustments.
- Switching from four pair UTP to RG6 or RG59 is simple – just change cartridges.
- Cartridges are color-coded for quick identification; blue for UTP and black for coax.
- Pre-measured stops eliminate time-consuming measuring and trimming.
- UTP cartridge strips four-pair UTP without scoring the individual conductors.
- Spare cartridge holder is conveniently built into the tool.
- Included with the tool, the RG6/RG59 cartridge strips the cable jacket and dielectric to 1/4" (6.4 mm).
- Extra-large finger hole.
- Made in the USA.

CAT. NO.	UPC NO.	DESCRIPTION
45677	45677	Kwik Stripper CATV/UTP Stripper with Both Cartridges
45667	45667	 Cartridge UTP
45580	45580	 Cartridge RG6/RG59
45581	45581	 Cartridge RG11/RG7

**45677**  
Typically used for F-type connectors (See page 245) and Modular Plug connectors (See page 244).  
The most versatile stripper in the industry.

## Pocket Cable Stripper



- Specifically designed for stripping power and telecommunications cables from 3/16" to 1-1/8" in diameter (4.5 mm to 29 mm).
- Easy blade depth adjustment.
- Blade rotates for circular, longitudinal and spiral cuts.

CAT. NO.	UPC NO.	DESCRIPTION
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1900	45824	Pocket Cable Stripper
07915	07915	Cutting Blade

## Pocket Cable Stripper

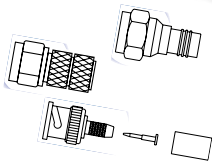


- Specifically designed for stripping power and telecommunications cables from 3/4" to 1-1/2" in diameter (19 mm to 40 mm).
- Strips solid conductor, stranded conductor and multiple conductor cables.
- Easy blade depth adjustment.
- Blade rotates for circular, longitudinal and spiral cuts.

CAT. NO.	UPC NO.	DESCRIPTION
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1901	45823	Pocket Cable Stripper
07915	07915	Cutting Blade

## Coax Connector Insertion Tool



45516

Use with F-style and BNC-style Connectors  
(See pages 245 - 249).

- Used in CATV applications, the Insertion Tool holds F- and BNC-style connectors securely in place allowing the installer to seat the connector properly on the cable.
- Prevents damage to center conductor.
- Screwdriver bit can be removed to allow the ratcheting screwdriver to be used with standard bits.
- Screwdriver bit can be purchased separately for use in standard ratcheting screwdrivers.
- BNC screwdriver bit sold separately for use with BNC connectors.

CAT. NO.	UPC NO.	DESCRIPTION
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45516	45516	Coax Connector Insertion Tool with F-style Connector Bit
45517	45517	Bit, F-style Connector
45518	45518	Bit, BNC-style Connector

## Punchdown Tool



46023

- Inserts wire for a corrosion-resistant termination and trims off excess wire.
- Terminates 66, 110, BIX and Krone cross-connect and wall jacks.
- Spring-loaded for fast, low-effort wire seating and termination.
- Internal impact mechanism eliminates jamming for longer, trouble-free service life.
- Adjustable low- and high-impact force settings.
- Bayonet-style blade locking mechanism.
- Neoprene pad for shock absorption.
- Spare blade storage in the handle.
- Color-coded yellow on the cut side of tool.

CAT. NO.	UPC NO.	DESCRIPTION
46020	46020	Punchdown Tool Only
46021	46021	Punchdown Tool w/66 Blade
46023	46023	Punchdown Tool w/110 Blade

## Replacement Blades for the Punchdown Tool



46022



46024

- Cut side labeled to eliminate costly punching errors.
- Made of high-carbon tool steel, heat-treated and precision-ground for long life.
- Reversible blades for seating/cut or seating only for jumper wires.
- Rust-resistant finish.

CAT. NO.	UPC NO.	DESCRIPTION
46022	46022	66 Style Blade
46024	46024	110 Style Blade



### 46010 Clip-On Twisted Pair Kit

Our Clip-On Twisted Pair Kit comes with all the tools necessary for terminating voice and data cable including a Punchdown Tool with 110 blade. See page 260 for details.

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Fax: 800.451.2632

Canada Tel: 800.435.0786  
Fax: 800.524.2853

International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

## Telephone Ratchet Crimper



- Combination tool terminates 8-position, 6-position and 4-position (45575 only) modular style plugs.
- No need to change crimping dies.
- Full-cycle ratchet mechanism provides consistent, quality terminations every cycle.
- Straight action ensures uniform crimp.
- Small, compact design.
- Built-in wire cutter and stripper for flat cable.
- All-steel frame has rust-resistant, black oxide finish.

CAT. NO.	UPC NO.	DESCRIPTION
45553	45553	Telephone Ratchet Crimper
45575	45575	Telephone Ratchet Crimper



**45553**  
Typically used for Modular Plug Connectors  
(See page 244).



**45575**  
Typically used for Modular Plug Connectors  
(See page 244). Our Telephone Ratchet Crimper was designed with a compact head to fit into tight spaces and ergonomic handles for operator comfort.



**45469 Voice and Category 5 Data Termination Kit**  
This kit includes our Telephone Ratchet Crimper plus other tools and connectors necessary for installing a voice and data network. Everything is conveniently organized in a durable zipper case. See page 262 for details on our Voice and Category 5 Data Termination Kit.

## Compression Crimping Tool



- Requires less force than a traditional hex-style crimp.
- Ergonomic Sanoprene grips reduce hand fatigue.
- Terminates most compression-style connectors.
- Fully adjustable for crimping different coax connector types.

CAT. NO.	UPC NO.	DESCRIPTION
60807	60807	Compression Crimping Tool



## Gator® Plus Terminal Crimping Tool



- Totally new hydraulic pump design results in an extremely compact, battery-powered crimping tool for crimping terminals and VDV connectors.
- Linear crimping action results in a completely symmetric crimp.
- Special compact 9.6 volt NiCd battery reduces weight and size.
- Slim profile and light weight provide for one-hand operation.
- Can complete approximately 150 crimps per battery charge.
- Ram can be retracted in mid-cycle to adjust connector.
- Crimping head rotates 360°.
- Uses all Kwik Cycle® 9 Crimping Dies (see charts on pages 242 and 243).
- Two batteries, battery charger, and carrying case included.
- Choice of 120 volt, 230 volt, or 12 volt battery charger.

CAT. NO.	UPC NO.	DESCRIPTION
EK21011	02024	1.5-Ton Battery-Powered Crimping Tool w/120 volt charger
EK21012	02025	1.5-Ton Battery-Powered Crimping Tool w/12 volt charger
EK21022	02026	1.5-Ton Battery-Powered Crimping Tool w/230 volt charger
RAM1	01975	9.6 V NiCd Battery
KK35SGL	02019	Carrying Case
02178	02178	120 V Charger
23076	23076	12 V Charger
02180	02180	230 V Charger

### SPECIFICATIONS

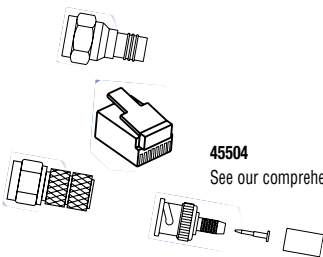
<b>Capacity</b>	Uses Kwik Cycle 9 Die Sets
<b>Length</b>	13-1/4" (337 mm)
<b>Weight</b>	2-3/4 lb. (1.3 kg)
<b>Battery</b>	9.6 volt 1.3 Ah NiCd battery
<b>Crimping Force</b>	2,900 lb. (13kN)
<b>Width</b>	3-1/8" (79 mm)
<b>Crimp Cycle Time</b>	~2 seconds
<b>Battery Charge Time</b>	1 hour

## Kwik Cycle® 9" Crimp Frame




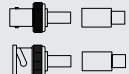







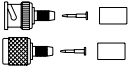







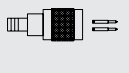







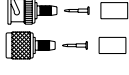







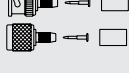























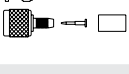







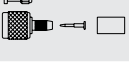






















- Used to manually crimp a wide variety of connectors and terminals to factory specifications.
- Frame features a precision full-cycle ratchet for accurate, repeatable crimps every cycle.
- Crimp release lever improves throughput by eliminating rejected terminations due to improper connector positioning.
- Frame features a tension adjustment preset at the factory for optimum performance.
- High-leverage force and ergonomically-designed handle provides comfortable use.
- Frame and dies are manufactured from heat-treated, hardened tool steel for superior function and long life.
- All die sets are easily interchangeable with a simple screwdriver.

CAT. NO.	UPC NO.	DESCRIPTION
45504	45504	Kwik Cycle 9" Crimp Frame



45504  
See our comprehensive line of connectors on pages 244-246.


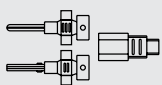
## Kwik Cycle® 9" Interchangeable Die Sets for Coaxial Connectors

	DESCRIPTION		CRIMP PROFILE & DIMENSIONS				CAT. NO.	UPC NO.	CAT. NO.	UPC NO.		
			BRAID CRIMP		CENTER CONTACT						TOOL WITH DIE	DIE ONLY
	CABLE TYPE	CONNECTION										
	RG58/RG59/ RG59TFE/RG6	BNC/TNC Cambridge/ AIM, 2-piece 									45562	45562
	Belden 1694A	BNC/TNC 									45563	45563
	RG22B/U Twinax & others	Twinax 									45574	45574
	RG58/RG174/8218	BNC/TNC 50 and 75 OHM 									46826	46826
	RG6/RG59 & 8281	BNC/TNC & F, 50 and 75 OHM. Also 1695, 1505, 9259 and 9231 							45545	45545	46830	46830
	RG58/RG59/62AU	BNC/TNC 							46800	46800	46824	46824
	RG59, RG6	CATV F 							46801	46801	46808	46808
	RG58, RG59 Plenum & Non-Plenum Thinwire	BNC/TNC 50/75 OHM 									45556	45556
	RG6, RG174, 8281, AT&T 728	BNC/TNC/F 							45582	45582	45557	45557
	RG58/141/142/58 Teflon/ 58 Thinney/RG59	BNC/TNC/F 									45558	45558
	RG58/59/62 Teflon	BNC/TNC from Cambridge/AIM 									45559	45559











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 Fax: +1.815.397.9247

 USA Tel: 800.435.0786  
 Canada Tel: 800.435.0786  
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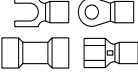



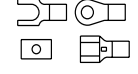
## Kwik Cycle® 9" Interchangeable Die Sets for Open Barrel Contacts System

DESCRIPTION		CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
CONNECTION	FEATURES	TOOL WITH DIE		DIE ONLY	
 <p>22-10 AWG (0.3 TO 6 MM<sup>2</sup>)</p> 	Open barrel, non-insulated terminals, ring tongue, spade and slide-on style			45508	45508

## Kwik Cycle® 9" Interchangeable Die Sets for Modular Plugs

DESCRIPTION		CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
CONNECTION	FEATURES	TOOL WITH DIE		DIE ONLY	
 <p>RJ11 2-, 4- and 6-position</p> 	Western Electric and Stewart style connectors			46116	46116
 <p>RJ45 8-position</p> 	AMP modular plug connectors	45540	45540	46117	46117
 <p>RJ11 4- and 6-position</p> 	AMP modular plug connectors	45541	45541	46118	46118
 <p>RJ45 10-position</p> 	Modular plug connectors			45571	45571
 <p>Hand set plug 4-position</p> 				45566	45566

## Kwik Cycle® 9" Interchangeable Die Sets for Insulated and Non-Insulated Terminals

DESCRIPTION		CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
CONNECTION	FEATURES	TOOL WITH DIE		DIE ONLY	
 <p>22-10 AWG</p> 	Color coded nests for easy identification Standard insulated terminals, ring tongue, spade lug, slide on and butt splices	45500	45500	45509	45509
 <p>22-10 AWG</p> 	Color coded nests for easy identification For fully insulated slide-on style connectors AMP Ultrafast™ style	45501	45501	45570	45570
 <p>26-16 AWG</p> 	For mini insulated terminals with smaller wire barrels. Ring tongue, spade, slide on and butt splices			45565	45565
 <p>22-8 AWG</p> 	For non-insulated terminals and splices	45505	45505	45507	45507

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USA Tel: 800.435.0786  
Fax: 800.451.2632

Canada Tel: 800.435.0786  
Fax: 800.524.2853





International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

## Modular Plugs

We offer modular plugs for a wide variety of installations – from simple tasks like connecting a telephone handset cord to the most demanding requirements of Category 5 wiring.

- Gold-plated contacts provide long life and reliable performance
- Manufactured to comply with FCC 68 guidelines

### F-STYLE CONNECTORS

DESCRIPTION					RECOMMENDED TOOL					
					STRIPPER		CRIMPER		COMBO	
CONNECTOR TYPE	CABLE TYPE	QUANTITY	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
 Handset 4 Contact	Flat Cable Stranded Wire	25/Pack 50/Pack 100/Pack	45737 45750 45770	45737 45750 45770	45480	45480	45504 w/die 45566	45504 w/die 45566	45575	45575
 RJ11 6 Contact	Flat Cable Stranded Wire	25/Pack 50/Pack 100/Pack	45738 45751 45771	45738 45751 45771	45480	45480	45541	45541	45553 45575	45553 45575
 DEC MMJ 6 Contact	Flat Cable Stranded Wire	25/Pack	45739	45739	45480	45480	45504 w/die	45504 w/die		
 RJ45 8 Contact	Flat Cable Stranded Wire	25/Pack 50/Pack 100/Pack	45740 45753 45773	45740 45753 45773	45480	45480			45553 45575	45553 45575
 Handset 4 Contact	Round Cable Solid Wire	25/Pack 50/Pack 100/Pack	45742 45755 45775	45742 45755 45775	45579	45579	45504 w/die 45566	45504 w/die 45566	45575	45575
 RJ11 6 Contact	Round Cable Solid Wire	25/Pack 50/Pack 100/Pack	45743 45756 45776	45743 45756 45776	45579	45579	45541	45541	45553 45575	45553 45575
 DEC MMJ 6 Contact	Round Cable Solid Wire	25/Pack	45744	45744	45579	45579			45553 45575	45553 45575
 RJ45 8 Contact	Round Cable Solid Wire	25/Pack 50/Pack 100/Pack	45745 45758 45778	45745 45758 45778	45579	45579			45553 45575	45553 45575
 RJ45 Cat 5 8 Contact (2 Piece)	Round Cable Solid Wire	25/Pack 50/Pack 100/Pack	45747 45760 45780	45747 45760 45780	45579	45579			45553 45575	45553 45575

For the best tools to use with our modular plugs, see pages 277 to 278 for stripping, and pages 278 to 279 for crimping.

# F-Style Coaxial Connectors System

• Nickel plated for corrosion resistance

## F-STYLE CONNECTORS

DESCRIPTION						RECOMMENDED TOOL			
CONNECTOR TYPE		CABLE TYPE	QUANTITY	CAT. NO.	UPC NO.	STRIPPER		CRIMPER	
						CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
	'F' Connector Twist-on	RG59	10/Pack 50/Pack	45735 45749	45735 45749	45576 45578 45677	45576 45578 45677		
	'F' Connector Crimp	RG59	10/Pack 50/Pack	45734 45748	45734 45748	45576 45578 45677	45576 45578 45677	46801	46801
	'F' Connector Twist-on	RG6	10/Pack 50/Pack	45327 45328	45327 45328	45576 45578 45677	45576 45578 45677		
	'F' Connector Crimp	RG6	10/Pack 50/Pack	45315 45316	45315 45316	45576 45578 45677	45576 45578 45677	46801	46801
	'F' Connector Crimp	RG59 Quad-shield	10/Pack 50/Pack	45321 45322	45321 45322	45576 45578 45677	45576 45578 45677	46801	46801
	'F' Connector Crimp	RG6 Quad-shield	10/Pack 50/Pack	45323 45324	45323 45324	45576 45578 45677	45576 45578 45677	46801	46801

## F-STYLE ADAPTERS

DESCRIPTION				
ADAPTER/TERMINATOR TYPE	QUANTITY	CAT. NO.	UPC NO.	
	5/Pack	45325	45325	
	5/Pack	45326	45326	

For the best tools to use with our F-style connectors, see pages 277 to 278 for stripping and pages 278 to 279 for crimping.

## XFC Series Weatherproof Compression F-Style Connectors



- Dual-protection with external sleeve and internal o-ring.
- 360-degree sleeve crimp prevents moisture migration.
- O-ring provides internal seal when the 7/16" nut is tightened.
- Use for both indoor and outdoor applications.
- Color-coded sleeves for easy identification of cable compatibility.
- 70 lbs pull-out strength exceeds SCTE cable retention standard IPS-SP-405.
- Terminates easily using any compression tool.

CAT. NO.	UPC NO.	DESCRIPTION
XFC-6-10	12578	RG6 - 10 Pack
XFC-6-50	12586	RG6 - 50 Pack
XFC-6-100	12587	RG6 - 100 Pack
XFC-6Q-10	12589	RG6 Quad - 10 Pack
XFC-6Q-50	12590	RG6 Quad - 50 Pack
XFC-6Q-100	12591	RG6 Quad - 100 Pack
XFC-59-10	12593	RG59 - 10 Pack
XFC-59-50	12594	RG59 - 50 Pack
XFC-59-100	12595	RG59 - 100 Pack

**R** = REPLACEMENT PART **A** = ACCESSORY

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Fax: 800.524.2853

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## BNC Coaxial Connectors

- Gold-plated, captive center contact provides long life and reliable performance
- Precision manufactured from machined brass and nickel plated for corrosion resistance

### BNC CONNECTORS


DESCRIPTION					RECOMMENDED TOOL			
					STRIPPER		CRIMPER	
CONNECTOR TYPE	CABLE TYPE	QUANTITY	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
 BNC Crimp Plug	RG58 Thinnet PVC	5/Pack	45730	45730	45577	45577	46800	46800
 BNC Crimp Plug	RG58 Thinnet Plenum	5/Pack	45731	45731	45577	45577	46800	46800
 BNC Crimp Plug	RG59/62 PVC	5/Pack	45732	45732	45577	45577	46800	46800
 BNC Crimp Plug	RG59/62 Plenum	5/Pack	45733	45733	45577	45577	46800	46800

### BNC ADAPTERS

DESCRIPTION			
ADAPTER TYPE	QUANTITY	CAT. NO.	UPC NO.
 BNC Tee-style Plug to Jack/Jack	1/Pack	45727	45727
 BNC Straight Jack to Jack	1/Pack	45728	45728

For the best tools to use with our BNC connectors, see pages 277 to 278 for stripping and pages 278 to 279 for crimping.

### BNC TERMINATORS

DESCRIPTION			
ADAPTER TYPE	QUANTITY	CAT. NO.	UPC NO.
 BNC Terminator 93 OHM	1/Pack	45726	45726

## VS1 Series Splitters



Designed for digital broadcast television, digital cable television, off-air antennas and RF distribution

- Bandwidth - 5 MHz to 1 GHz.
- Power Passive Port - designed to pass RF and DC power from one input to one output.
- Nickel-plated, zinc die-cast housing for excellent anti-corrosive protection.
- 100% solder-sealed tin backplate provides EMI/RFI shielding > -120dB.
- Low insertion loss.
- Printed circuit board construction ensures consistent RF performance and excellent port-to-port isolation.
- Precision machine threaded "F" ports for perfect connector fit.
- F-Ports spaced at 1" on center to allow application of security sleeves and window filters.
- F-Ports comply with SCTE outdoor standards.
- Mounting screws included.

CAT. NO.	UPC NO.	DESCRIPTION
VS1-2	46241	2-Way 1 GHz Splitter (1)
VS1-3	46242	3-Way 1 GHz Splitter (1)
VS1-4	46243	4-Way 1 GHz Splitter (1)
45326	45326	F-Terminator, 75 ohm (10)

### SPECIFICATIONS

ELECTRICAL SPECIFICATIONS	Frequency - Range (MHz)	VS1-2, 2-Way	VS1-3, 3-Way	VS1-4, 4-Way
		3.6	4.0-7.2	7.5
Insertion Loss	47-470	4.0	4.1-7.8	8.0
	In-Out	4.3	4.3/8.2	8.5
	(max dB)	750-1000	4.5	4.5/8.5
Return Loss In (min dB)	5-47	15.0	15.0	15.0
	47-470	16.0	17.0	17.0
	470-750	15.0	15.0	15.0
Return Loss Out (min dB)	750-1000	15.0	15.0	15.0
	5-47	15.0	15.0	15.0
	47-470	16.0	17.0	17.0
Isolation Out-Out (min dB)	470-750	15.0	15.0	15.0
	750-1000	15.0	15.0	15.0
	5-47	20.0	20.0	20.0
Isolation Out-Out (min dB)	47-470	21.0	21.0	21.0
	470-750	20.0	20.0	20.0
	750-1000	20.0	20.0	20.0
LENGTH:		2.3" (58mm)	3.0" (76mm)	3.0" (76mm)
WIDTH:		1.9" (48mm)	1.9" (48mm)	1.9" (48mm)
HEIGHT:		0.6" (15mm)	0.6" (15mm)	0.6" (15mm)
HOUSING:		Nickel Plated Zinc Die Cast		
RF CONNECTOR		F-Type Female 75OHM		

## WIRE & CABLE IDENTIFICATION

### 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	08687	77HP Tone Generator
77HP/6A	08688	77HP/6A Tone Generator
77HP/6AC	60480	77HP/6AC Tone Generator

Note: Not for use on energized AC wiring

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



### Classic 77 Series Tone Generators

FEATURES / SPECIFICATIONS	77HP	77HP / 6A	77HP / 6AC
Selectable Warble Tone	✓	✓	✓
Continuity Testing	✓	✓	✓
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	✓	✓	✓
Cloth Test Leads	✓	✓	✓
Battery Operated (9V not included)	✓	✓	✓



### 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
RPC	08710	Piercing Clips

## 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
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Note: Not for use on energized AC wiring

## LAN Toner with HUB Blink and Detect



- 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
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Note: Not for use on energized AC wiring

## Tone Test Set



- 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
600CS	08679	Leather Belt Holster for 600LS 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.

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

*Note: Not for use on energized AC wiring*

### SPECIFICATIONS

Electrical	
Output Power	+9dBm
Output Signal Frequency	877/982 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)

## 200 Series Inductive Amplifiers

MODEL NO.	200EP	200GX	200FP	200XP
Powerful 2" Speaker	✓	✓		
Powerful, Rear-fire Speaker			✓	✓
One-button Operation	✓	✓	✓	✓
Adjustable Volume Control	✓	✓	✓	✓
LED for Visual Signal Strength Indication	✓	✓	✓	✓
Recessed Tabs for Telephone Test or Headset Connection	✓	✓	✓	✓
Speaker Bypass When Using Telephone Test Sets		✓		
Noise Filtration			✓	✓
Improved Tip Design for Better Reception and Lower Risk of Shorting Terminals		✓	✓	✓
Continuous-On Feature			✓	✓
Five-Minute Auto Shutoff			✓	✓
Low-battery Indicator			✓	✓
Battery Operated (9V not included)	✓	✓	✓	✓
Patented			✓	✓



200EP



200GX



200FP



200XP

## Inductive Amplifiers

- Used in conjunction with any tone generator, Inductive 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 200EP also includes adjustable volume control for precise identification, an LED for visual signal strength indication and recessed telephone test set connectors.
- The 200GX includes all the features of the 200EP in a new rugged, ergonomically-designed housing.



200GX

200C

CAT. NO.	UPC NO.	DESCRIPTION
200EP	08671	Inductive Amplifier
200GX	60557	Inductive Amplifier
200C	08670	Leather Belt Holster for 200 Series Inductive Amplifiers

## Filter Probe



- By selectively filtering out 60Hz 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 Probe

## Multi-Filter Tone Probe



- Single button selects 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 9 V battery.
- One probe for many applications.
- Works with any tone generator.
- 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

## Replacement Plastic Tips for 200 Series Probes



- 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
RPT-1	08711	Ⓡ Plastic Tips for 200B, 200EP, 200FP and 200XP
RPT-2	60561	Ⓡ Plastic Tips for 200GX

## Replacement Metal Tips for 200B and 200EP Probes



- 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
RMT-1	08709	Ⓡ Metal Tips for 200B and 200EP Probes

## Classic Tone and Probe Kit



- Used to identify single conductors or cables within a bundle, at a cross-connect point or at remote ends.
- Kit includes the 77HP High Power Tone Generator and the 200EP Inductive Amplifier in a rugged, woven nylon carrying case. (700C)

CAT. NO.	UPC NO.	DESCRIPTION
701K	08684	Classic Tone and Probe Kit

## Professional Tone and Probe Kit



- Designed for the telecom professional, this kit is for use on single conductors, twisted pairs, coax cables and de-energized electrical wiring.
- Housings are drop-tested to ensure durability.
- Kit includes the 77GX Tone Generator and 200GX Inductive Amplifier in a rugged carrying case. (711CS)

CAT. NO.	UPC NO.	DESCRIPTION
711K	60558	Professional Tone and Probe Kit

## Premium Tone and Probe Kit



- 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

## AdapToner Kit



- 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

## 802K Digital LAN Tracing Kit

**NEW**



- The 802K Digital LAN Tracing Kit is a powerful, unique troubleshooting and tracing solution for LANs and other types of VDV wiring. The industry standard 200FP filter probe is designed to eliminate hum from fluorescent lights and AC power wiring that can obscure tracing tones.
- The AT8L LAN Toner not only generates multiple tracing tones and provides basic wiring tests, but indicates the presence of 10/100Base-T network service.

CAT. NO.	UPC NO.	DESCRIPTION
802K	36000	Digital LAN Tracing Kit

## LAN Toner Kit



- 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, woven nylon carrying case. (700C)

CAT. NO.	UPC NO.	DESCRIPTION
AT8LK	60584	LAN Toner Kit

## CATV Cable Tone Test Kit



- 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-to-alligator 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 in the presence of passive devices.
- 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.

CAT. NO.	UPC NO.	DESCRIPTION
402K	08677	CATV Cable Tone Test Set
402T	60376	<b>R</b> Transmitter
402R	60377	<b>R</b> Receiver
CS9	60374	<b>R</b> Male to male F-connector adapter cable
CS19	60378	<b>R</b> F-connector to alligator clip

## Security and Alarm Kit



- Designed specifically for the security and alarm industry, the 620K provides a simple method for identifying intermittent failures (swingers) and confirming operation of switches at remote locations.
- To better satisfy industry requirements, we've combined the Model PE620 Tone Generator with the popular Model 200EP Inductive Amplifier in a durable woven nylon pouch. (700C)

CAT. NO.	UPC NO.	DESCRIPTION
620K	08682	Security and Alarm Kit

## Cabling Pouch



- Designed to hold a complete set of wiring tools including: any (one) 77 Series Tone Generator, any (one) 200 Series Inductive Amplifier, a punchdown tool, a cabling knife and scissors.
- Convenient loop to hold most telephone test sets.
- Removable "parts pouch" allows you to keep small components in reach.
- Made of a durable woven nylon.
- Fits belts up to 5" wide.

CAT. NO.	UPC NO.	DESCRIPTION
750C	08685	Cabling Pouch

## Tone and Probe Carrying Case



700C



711CS

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

CAT. NO.	UPC NO.	DESCRIPTION
700C	08683	Tone and Probe Carrying Case
711CS	60559	Tone and Probe Carrying Case with belt hook

## STRUCTURED WIRING TESTERS

### NETcat® Pro NC-500

**NEW**



NC-500



NC-510

- Touch screen display with contrast adjustment and backlight.
- Tests shielded twisted pair (STP) unshielded twisted pair (UTP) and coaxial cables.
- 0-2000 foot cable length via TDR.
- Generate four distinct, precision tones for tracing low-loss cables like Cat 5.
- Identifies active network devices (PC or Hub) on 10/100 Base-T networks.
- Displays network device capabilities.
- Patch cable and remote jack wire-map.
- Detects shorts, opens, reversed, crossed and split pairs.
- Office identification using remote ID units.
- Troubleshoots and verifies a wide range of networks.
- Graphical touch-screen display.
- Remote jack ID and verification.
- Operates on a single 9V battery, with low battery indicator.
- Pulsed time domain reflectometer (TDR) shows length of all pairs.
- Compatible with Greenlee precision digital probes.

CAT. NO.	UPC NO.	DESCRIPTION
NC-500	23639	NETcat Pro Digital VDV Wiring Troubleshooter
NC-510	23640	<b>A</b> NETcat Pro Accessory Kit w/carry case

#### SPECIFICATIONS

<b>Dimensions</b>	3.3" x 1.4" x 6.7" (8.5 cm x 3.5 cm x 17 cm)
<b>Weight</b>	0.45 lb. (200 g)
<b>Power</b>	9V Alkaline battery (PP3)
<b>Requirements</b>	
<b>User Interface</b>	
<b>Display LCD</b>	Dot Pixels: 128 x 128 dots
<b>Viewing Area</b>	60.0 x 58.4
<b>Backlight</b>	White LED
<b>Buttons</b>	LCD touch-screen, Single momentary contact push button
<b>Environmental</b>	
<b>Operating Temperature</b>	0°C to 50°C
<b>Storage Temperature</b>	-20°C to 70°C
<b>Interface</b>	RJ45 shielded jacks
<b>Connections</b>	F-type threaded female coaxial connectors
<b>TDR</b>	User selectable based on a known cable length.
<b>Calibration</b>	Range: 50 to 2000 ft. - 40% to 100% in step of 1%
<b>Length</b>	2000 ft Maximum
<b>Resolution</b>	1 ft.
<b>Accuracy to Open/Short</b>	+4% or 2 ft. whichever is greater
<b>Remote Identifier</b>	2000 ft. (609.6 meters) maximum distance
<b>Wiremap</b>	358 ft (100 meters) maximum distance

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## NETcat® Micro NC-100

**NEW**



- 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 of hazardous voltages.
- Checks for reversed telephone wires.

CAT. NO.	UPC NO.	DESCRIPTION
NC-100	23636	NETcat® Micro Digital Voice Data and Video Wiring Tester

### SPECIFICATIONS

<b>Dimensions</b>	150 x 70 x 33mm
<b>Weight</b>	220g including remote unit and battery
<b>Power Source</b>	9V Alkaline battery (PP3)
<b>User Interface</b>	
<b>Display LCD</b>	Icon and seven segment type
<b>Backlight</b>	Green LED
<b>Buttons</b>	Four momentary contact push button
<b>Environmental</b>	
<b>Operating Temperature</b>	0°C to 50°C
<b>Storage Temperature</b>	-10°C to 60°C
<b>Humidity</b>	up to 95% non-condensing
<b>Interface</b>	RJ45 shielded socket
<b>Connections</b>	
	RJ12 6-way socket
	F-type threaded female coaxial connectors
<b>Network Split Pair Detection</b>	
<b>Minimum cable length</b>	2 to 3 meters (5 to 10 ft.) depending on cable type
<b>Pair Tracing Tones</b>	
	Alternating frequencies of 577Hz and 983Hz are produced at three user selectable rates. Designed for standard tone probes, but compatible with precision digital Greenlee tone probes.

## PairMapper® Wiremap Kit



PM-400K

- Use to identify various wiring faults found in 10 BASE-T and other four-pair, twisted pair cables per TIA/EIA 568A and 568B.
- Tests and identifies up to four cables with unique Remote Terminators.
- Easy to use, compact.
- Checks twisted pair cable for shorts, opens, crossed pairs, reversed pairs and split pairs.
- Battery operated (4 x AAA not included).

CAT. NO.	UPC NO.	DESCRIPTION
PM-400K	11877	PairMapper Wiremap Kit

## Sure Signal®



46060

- Designed for cable installers and communications technicians for testing four-pair data/voice cable links terminated with standard, modular eight-position RJ45-style jacks.
- Simplest tester available for identifying common wiring faults such as shorts, opens and miswires.
- Diagnosis can be completed at one end.
- Sequentially-lighting LEDs correspond to each wire allowing easier diagnosis of miswires than testers that check pairs.
- Can test more wiring configurations than other testers due to sequential wiremap testing.
- Shielded test ports allow extra versatility to test shielded and screened twisted pair.
- Optional patch cords allow the Sure Signal to be used as a coax tester, eliminating the need for a second tester.
- Optional remote unit can be used to check patch cords for wiring errors.
- Optional Accessory Kit includes two RJ45 patch cords, two RJ45 to BNC adapter cords, two RJ45 to RJ11 snap-in adapters and one BNC plug to BNC plug adapter.
- Battery operated (9V not included).
- Lifetime limited warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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46060	46060	Sure Signal Line Verifier and Patch Cord Tester
46070	46070	<b>R</b> Sure Signal Remote
45276	45276	<b>R</b> Carrying Case
46065	46065	<b>R</b> Sure Signal Accessory Kit
CSIO	60381	<b>R</b> Modular Adapter cable

## Wiremap Tester



468

- 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 inductive amplifier (probe) to locate the corresponding plug or jack.
- Battery operated (9V not included).

CAT. NO.	UPC NO.	DESCRIPTION
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468	08661	Wiremap Tester
468C	60382	<b>R</b> Carrying Case for the Wiremap Tester
468T	60379	<b>R</b> Transmitter
468R	60380	<b>R</b> Receiver
CSIO	60381	<b>R</b> Modular Adapter Cable

## Coaxial Cable Tester



45055

- Provides quick verification of opens or shorts in either the conductor or the shield of coax cable.
- Simple one-button operation provides pass/fail indication.
- Remote terminator allows testing of cables before or after installation.
- Clear red/green LED indication of short or open conditions.
- Standard BNC- and F-type female connectors.
- Battery operated (9V included).
- Lifetime limited warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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45055	45055	Coaxial Cable Tester
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## TERMINATION & TESTING

### Clip-On Twisted Pair Kit



- Provides the most essential tools for terminating voice and data cabling right at the installer's side.
- Rugged Cordura® pouch is built to last, lowering replacement costs.
- Heavy-duty metal clip snaps over the installer's belt so that the kit can be removed without removing the belt.
- Side holsters allow the installer to carry a flashlight and a favorite screwdriver.

CAT. NO.	UPC NO.	DESCRIPTION
46010	46010	Clip-On Twisted Pair Kit

**Kit contents may be purchased separately:**

46023	46023	Punchdown Tool with 110 Blade
PT-T02	08708	Electrician's Scissors
45579	45579	Twisted Pair Stripper
46500	46500	Pocket-Light Flashlight
45272	45272	Pouch

**Replacement Tools and Blades are also available:**

46020	46020	Punchdown Tool
46021	46021	Punchdown Tool with 66 Blade
46022	46022	66 Style Punchdown Blade
46024	46024	110 Style Punchdown Blade

### Cable TV Coax Termination Kit



- Contains the tools and connectors necessary for installing a Cable TV system.
- Durable Cordura Plus zipper case protects and organizes tools and includes a see-through pouch for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
45466	45466	Cable TV Coax Termination Kit

**Kit contents may be purchased separately:**

45482	45482	Cable Cutter
45578	45578	Kwik Stripper® CATV Stripper, 2 Level Stripper for RG6, RG59, RG7, RG11
46801	46801	Kwik Cycle® 9" Crimp Frame with Die Set for F-style Connectors on RG6 and RG59 Cable
45516	45516	F Connector Insertion Tool
45324	45324	F-style Crimp-on Connectors for Quad-shield RG6 (Qty. 50)
45476	45476	Zipper Case

## Cable TV Coax Termination and Test Kit



- Contains the tools, connectors and tester for installing and testing a Cable TV system.
- Cable TV tone test set uses both electromagnetic and electrostatic pickup to tone through splitters, directional couplers and taps.
- Durable Cordura® Plus zipper case protects and organizes tools and includes a see-through pouch for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
45467	45467	Cable TV Coax Termination and Test Kit

**Kit contents may be purchased separately:**

45482	45482	Cable Cutter
45578	45578	Kwik Stripper® CATV Stripper, 2 level stripper for RG6, RG59, RG7, RG11
46801	46801	Kwik Cycle® 9" Crimp Frame with Die Set for F-style Connectors on RG6 and RG59 Cable
45516	45516	F Connector Insertion Tool
45323	45323	F-style Crimp-on Connectors for Quad-shield RG6 (Qty. 25)
402T	60376	Cable TV Tone Generator
402R	60377	Cable TV Tone Receiver
45477	45477	Zipper Case

## Coax/Twisted Pair LAN Termination and Test Kit



- Provides the essential tools, connectors and testers necessary for maintaining a Local Area Network (LAN), twisted pair cabling and coax Ethernet (Thinnet) cabling.
- Durable Cordura Plus carrying case protects and organizes tools and includes a see-through pouch for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
45468	45468	Coax/Twisted Pair LAN Termination and Test Kit

**Kit contents may be purchased separately:**

45482	45482	Cable Cutter
45579	45579	Kwik Stripper® Twisted Pair Stripper
46023	46023	Punchdown Tool with 110 Blade
46022	46022	66 Style Punchdown Blade
45575	45575	Telephone Ratchet Crimper for 4-, 6- and 8-position Modular Plugs
45577	45577	Kwik Stripper Coax Stripper, 3 Level
46800	46800	Kwik Cycle 9" Crimp Frame with Die Set for BNC-style Connectors on Thinnet RG8 Cable
45481	45481	Center Conductor Cutter for Coax Cable
AT8	08693	AdapToner Modular Breakout Tone Generator
200EP	08671	Inductive Amplifier Probe
45760	45760	Category 5 Connectors RJ45, 8-Position (Qty. 50)
45478	45478	Carrying Case

## Voice and Category 5 Data Termination Kit



- Includes the tools and connectors necessary for installing a voice and data network.
- Durable Cordura® Plus zipper case protects and organizes tools and includes a see-through pouch for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
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45469	45469	Voice and Category 5 Data Termination Kit
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**Kit contents may be purchased separately:**

45482	45482	Cable Cutter
45579	45579	Kwik Stripper® Twisted Pair Stripper
46023	46023	Punchdown Tool with 110 Blade
46022	46022	66 Style Punchdown Blade
45575	45575	Telephone Ratchet Crimper for 4-, 6- and 8-Position Modular Plugs
45760	45760	Category 5 Connectors RJ45, 8-Position (Qty. 50)
45751	45751	Flat Cable Connectors RJ12, 6-Position, 6-Conductor (Qty. 50)
45479	45479	Zipper Case

## Category 5 Data Termination and Test Kit



- Includes the tools, connectors and testers necessary for installing a Cat 5 data network.
- Durable Cordura® Plus zipper case protects and organizes tools and includes a see-through pouch for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
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45470	45470	Category 5 Data Termination and Test Kit
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**Kit contents may be purchased separately:**

45482	45482	Cable Cutter
45579	45579	Kwik Stripper® Twisted Pair Stripper
46023	46023	Punchdown Tool with 110 Blade
45575	45575	Telephone Ratchet Crimper for 4-, 6- and 8-Position Modular Plugs
45760	45760	Category 5 Connectors RJ45, 8-Position (Qty. 50)
468T	60379	Modular Cable Tester Transmitter with Tone Generator
468R	60380	Modular Cable Tester Receiver
45485	45485	Zipper Case

## Professional Installation Kit



- Includes all the tools, connectors and testers for installing and maintaining most types of communications cabling including voice, data, cable TV and coax Ethernet networks.
- Durable Cordura® Plus carrying case protects and organizes tools and includes see-through pouches for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
45471	45471	Professional Installation Kit

**Kit contents may be purchased separately:**

45482	45482	Cable Cutter
45579	45579	Kwik Stripper® Twisted Pair Stripper
46023	46023	Punchdown Tool with 110 Blade
46022	46022	66 Style Punchdown Blade
45575	45575	Telephone Ratchet Crimper for 4-, 6- and 8-position Modular Plugs
AT8	08693	AdapToner Modular Breakout Tone Generator
200EP	08671	Inductive Amplifier Probe
PM-400K	11877	PairMapper® with Remotes 1-4
45577	45577	Kwik Stripper Coax Stripper, 3 Level
45040	45040	Kwik Stripper 2-Level Coax Cartridge
46801	46801	Kwik Cycle® 9" Crimp Frame with Die Set for F-style Connectors on RG6 and RG59 Cable
46824	46824	Kwik Cycle Die Set for BNC-style Coax Connectors on Thinnest RG58 Cable
45481	45481	Center Conductor Cutter for Coax Cable
45516	45516	F Connector Insertion Tool
45324	45324	F-style Crimp-on Connectors for Quad-shield RG6 (Qty. 50)
45760	45760	Category 5 Connectors RJ45, 8-Position (Qty. 50)
45751	45751	Flat Cable Connectors RJ12, 6-Position, 6-Conductor (Qty. 50)
45486	45486	Carrying Case

## Telecom Technician Kit



- Contains all the essential tools and testers to install and maintain the voice network.
- Durable woven nylon pouch fits any belt up to 5" wide and keeps all the tools conveniently accessible.

CAT. NO.	UPC NO.	DESCRIPTION
45472	45472	Telecom Technician Kit

**Kit contents may be purchased separately:**

46023	46023	Punchdown Tool with 110 Blade
46022	46022	66 Style Punchdown Blade
PT-T02	08708	Electrician's Scissors
PT-T01	08707	Cable Splicer's Knife
77HP	08687	Tone Generator
200EP	08671	Inductive Amplifier Probe
PE930	60487	Telephone Test Set
750C	08685	Cabling Pouch

Voice • Data • Video

USA Tel: 800.435.0786  
Fax: 800.451.2632

Canada Tel: 800.435.0786  
Fax: 800.524.2853

International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

## Telecom Field Technician Kit



- Contains all the essential tools and testers to maintain a telecommunications network.
- Top quality digital multimeter and telephone test set make troubleshooting a voice network easy.
- DMM features an industry-leading lifetime warranty.
- Insulated screwdrivers protect the technician up to 10,000V.
- Durable Cordura® Plus carrying case protects and organizes tools and includes see-through pouches for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
45473	45473	Telecom Field Technician Kit

**Kit contents may be purchased separately:**

45482	45482	Cable Cutter
46023	46023	Punchdown Tool with 110 Blade
46022	46022	66 Style Punchdown Blade
PT-T02	08708	Electrician's Scissors
PT-T01	08707	Cable Splicer's Knife
77HP	08687	Tone Generator
200EP	08671	Inductive Amplifier Probe
PE930	60487	Telephone Test Set
46040	46040	TurTEL6 Modular Adapter and Polarity Tester
DM-800	07549	Digital Multimeter
46500	46500	Pocket-Light Flashlight
1955	06857	Wire Strippers/Cutter, 10-18 AWG Solid, 12-20 AWG Stranded
47439	47439	Screwdrivers, 6-piece Set.
45487	45487	Carrying Case

International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

Canada Tel: 800.435.0786  
Fax: 800.524.2853

USA Tel: 800.435.0786  
Fax: 800.451.2632

## BURIED FACILITY LOCATING

### Tracker II



HS-1 (08695)  
Optional headset is available for use in high-traffic areas or other noisy environments.

- Traces the path and determines the depth of wires and metallic pipes on active or dead systems without having to deactivate the system.
- Lightweight receiver provides audible and visual indications of signal strength.
- Transmitter output and receiver sensitivity are fully adjustable for maximum accuracy.
- Transmitter offers three methods of connection: direct, inductive coupler and inductive antenna.
- Includes transmitter assembly, receiver assembly, inductive coupler (clamp), built-in inductive antenna, two 8' (2.4 m) test leads with heavy-duty alligator clips and durable polyethylene case.
- High frequency transmitter provides range up to 4,000' (1,219 m) and depths up to 7' (2 m).
- Receiver is 32" long (813 mm).
- Battery operated (eight AA and one 9V battery is included).
- Molded carrying case included.
- 1-year limited warranty.

CAT. NO.	UPC NO.	DESCRIPTION
501	08662	Tracker II
501T	60353	Transmitter
501R	60352	Receiver
IC1	60354	Inductive Clamp
CS16	60355	Transmitter Cord Set
500CA	60351	Case with Antenna

#### SPECIFICATIONS

<b>Power Requirements</b>	Transmitter – (8) AA batteries; Receiver – (1) 9V battery
<b>Battery Life</b>	Transmitter – 30 hours nominal; Receiver – 10 hours nominal
<b>Transmitter Frequency</b>	447.5kHz
<b>Transmitter Power</b>	40Vp-p (140mW) maximum
<b>Voltage Protection</b>	240VAC/500VDC
<b>Automatic Shut Off</b>	90 Min. Transmitter and Receiver
<b>Construction</b>	Transmitter/Receiver – powder coated aluminum Case – vacuum formed polyethylene
<b>Dimensions</b>	Transmitter – 4.25" x 3" x 3.25" (108 x 76.2 x 82.6 mm) Receiver – 32" x 2.75" x 4" (812.8 x 69.9 x 101.6 mm) Case – 33.5" x 8.25" x 3.75" (850.9 x 209.6 x 95.3 mm)
<b>Weight</b>	6.7 lbs. complete kit (3.04 kg)

### Buried Line Locator



- LED and LCD signal strength indicators make it quick and easy to find exact line location.
- Lightweight and ergonomically balanced.
- Automatic signal boost makes it easy to trace lines, even those with very weak signals.
- Receiver may be used in active or passive mode.
- Receiver locates multiple passive frequencies with a single setting.
- Receiver automatically locks out passive range when it detects a transmitter signal, reducing the chance of tracing other lines carrying weaker signals.
- Microprocessor-based circuitry delivers increased accuracy and features auto-gain control in all environments.
- Traces 20' (6 m) underground and provides depth readings up to 15' (4.57 m).
- Transmitter can be connected to live lines up to 600V.
- Lifetime limited warranty.
- Molded carrying case included.

#### SPECIFICATIONS

Transmitter		Receiver	
<b>Operating Voltage</b>	0-600VAC, 0-300 VDC	<b>Depth Range</b>	Measures: 0-15 ft. Traces: 0-20 ft.
<b>Current</b>	13mA (open line) 150mA (live or shorted line)	<b>Depth Resolution</b>	±(10% reading + 0.2 ft.) 0.1 ft. increments
<b>Frequency</b>	33.3kHz	<b>Passive Trace Frequency</b>	12Hz-24kHz
<b>Operating Temperature</b>	0°F to 120°F (-17°C to 50°C)	<b>Operating Temperature</b>	0°F to 120°F (-17°C to 50°C)
<b>Size</b>	7.5" x 4" x 2.1" (190.5 mm x 101.6 mm x 53 mm)	<b>Size</b>	4.1" x 8.5" x 38" (104.1 mm x 215.9 mm x 965.2 mm)
<b>Power</b>	6 VDC (4 AA batteries)	<b>Power</b>	6 VDC (4 AA batteries)
<b>Weight</b>	15 oz. (425 g) (with batteries and clamp)	<b>Weight</b>	1 lb. 12 oz. (794 g)

CAT. NO.	UPC NO.	DESCRIPTION
BLL-200	07796	Buried Line Locator

## Pulser Fault Locator








PE2003  
Great complement to any buried line cable locator.

- Identifies the exact location of even the smallest breaks in insulation by "pulsing" a high-voltage signal that radiates into the earth at the location of the faults. With the A-frame mounted receiver, a visual analog meter points the way to the source of the voltage.
- Multiple faults on a single wire can be identified indicating the need to replace instead of repair.
- Extra-long test leads feature heavy-duty alligator clips for use on multiple cable types.
- Includes a rechargeable transmitter, receiver, A-frame, ground stake, 120V charger and a 12V DC (cigarette lighter) adapter.
- Battery operated (one 12V and one 9V battery are included).
- Molded carrying case included.
- 1-year limited warranty.

### SPECIFICATIONS

<b>Power Requirements</b>	Transmitter: (1) 12V rechargeable battery Receiver: (1) 9V battery
<b>Battery Life</b>	Transmitter: 23 hours per charge; Receiver: 200 hours
<b>Transmitter Power</b>	2400VDC peak
<b>Voltage Protection</b>	240VAC/400VDC
<b>Construction</b>	Transmitter – aluminum housing in polyethylene case Receiver – powder coated aluminum
<b>Dimensions</b>	Transmitter – 17" x 8.5" x 6.5" (421 mm x 215 mm x 160 mm) in case Receiver – 33.5" x 21.75" x 3.25" (840 mm x 550 mm x 8 mm) on A-Frame
<b>Weight</b>	12.5 lbs. (5.7 kg) complete

CAT. NO.	UPC NO.	DESCRIPTION
PE2003	08666	Pulser
2000H	60357	 Transmitter (Includes CH1 & CH2)
2000R	60358	 Receiver
AF2	60482	 A-Frame
CH1	60360	 AC Charger
CH2	60361	 DC Charger





## Wire Finder/Mini Locator



- Traces energized or degenerated wires in walls and drop ceilings.
- Provides reliable results on buried cables to depths of 3' (1 m) and lengths up to 1000' (308 m).
- Determines the approximate depth of the wire before digging.
- Compact design and easy-to-understand operations.
- Fully adjustable transmitter and receiver for accurate locating.
- Quick change test leads for use in any industry, even international power outlets.
- Voltage protection to allow use on live AC circuits.
- Automatic shut-off to prevent accidental battery discharge.
- Housed in a durable, molded carrying case with a quick reference operation guide on the inside of the lid.
- Battery-operated: (2) 9V batteries included.
- 1-year limited warranty.

### SPECIFICATIONS

<b>Power Requirements</b>	(1) 9V each (transmitter and receiver, included)
<b>Battery Life</b>	Transmitter 35 hours nominal; Receiver 20 hours nominal
<b>Transmitter Frequency</b>	447.5kHz
<b>Transmitter Power</b>	9Vp-p (11mW)
<b>Voltage Protection</b>	240VAC/500VDC
<b>Construction</b>	Transmitter/Receiver – high-impact ABS plastic, Case – vacuum-formed polyethylene
<b>Dimensions</b>	Transmitter – 4" x 2.3" x 1" (101.6 x 58.4 x 25.4 mm), Receiver – 6" x 2.35" x 1" (152.4 x 59.7 x 25.4 mm), Case – 9.5" x 8" x 3" (241.3 x 203.2 x 76.2 mm)
<b>Weight</b>	2.6 lbs. (1.2 kg)

CAT. NO.	UPC. NO	DESCRIPTION
508S	08678	Wire Finder/Mini Locator
508ST	60363	 Transmitter
508SR	60364	 Receiver
CS14	60366	 Alligator Clip Cord set
CS15	60367	 AC Outlet Cord set

## Wire and Valve Locator



- Adjustable transmit power allows you to select the best signal for maximum performance.
- Transmitter's high power output offers extended range and use on higher resistance wire paths that other locators can't touch.
- Receiver provides both audible and visual indications of signal strength.
- Lightweight receiver wand makes it easy for you to move along quickly to locate even the longest wire path.
- Rugged headphones block ambient noise and improve "feel" for the signal.
- Includes transmitter, receiver, headset, ground stake, and complete instructions.
- Battery-operated: (8) "D" Cells and (1) 9V.
- 1-year limited warranty.

### SPECIFICATIONS

<b>Power Requirements</b>	Transmitter: (8) "D" Cell; Receiver: (1) 9V battery
<b>Battery Life</b>	Transmitter: 50 hours nominal Receiver: 100 hours nominal
<b>Transmitter Frequency</b>	1748Hz
<b>Transmitter Power</b>	750Vp-p 285Vrms
<b>Voltage Protection</b>	120VAC/250VDC
<b>Construction</b>	Powder-coated aluminum housing in polyethylene case
<b>Case Dimensions</b>	33.5" x 8.25" x 3.75"
<b>Weight</b>	12 lbs. complete

CAT. NO.	UPC NO.	DESCRIPTION
521A	86788	Wire and Valve Locator
521T	60368	Transmitter
521R	60352	Receiver
HS1	08695	Headset
GS1	60362	Ground Stake

## Marker-Mate®



- Designed to locate buried electronic markers, including Omni Marker®, and Uni Marker™
- Five+ foot depth range
- Detects up to seven different marker types
- Scan mode provides simultaneous detection of all marker types
- User-adjustable Detection Threshold
- Digital signal processor accuracy
- Large-character display is easy to read
- Bar graph, numeric & audible signal strength indicators
- Speaker volume adjust
- Headphone jack
- Battery level indicator
- Low battery warning
- Adjustable time out feature prolongs battery life (and can be turned off)
- Weather resistant
- Rugged construction
- Patent pending

CAT. NO.	UPC NO.	DESCRIPTION
EML100	60798	Marker-Mate Electronic Marker Locator

### SPECIFICATIONS

<b>Electrical:</b>	Twelve AA batteries Battery Life: 20 hours typical
<b>Environment:</b>	
<b>Operating Temperature:</b>	-4°F to 122°F (-20°C to 50°C)
<b>Storage Temperature:</b>	-40°F to 158°F (-40°C to 70°C)
<b>Weather Resistant</b>	
<b>Physical:</b>	
<b>Length:</b>	30.7 in. (780 mm)
<b>Width</b>	7.8 in. (198 mm)
<b>Height:</b>	12.8 in. (325 mm)
<b>Weight:</b>	4.5 lbs. with batteries (2 kg)

= REPLACEMENT PART = ACCESSORY

## Omni Marker®



- Electronically marks and relocates buried facilities.
- Unique design produces a uniform, spherical RF field in every direction.
- Easily located up to 5' away with any modern marker locator.
- Wider field with a signal peak directly above the marker provides precise location.
- Requires no particular orientation when buried.
- Greater range than standard 4" ball markers.
- High-reliability design lasts as long as your buried plant.
- Color coded by utility application.
- Lifetime limited warranty.
- Patented.

APPLICATION	COLOR	FREQUENCY	CAT NO.	UPC NO.
Power	Red	169.8kHz	0160-0001-1	60765
Water	Blue	145.7kHz	0161-0001-1	60766
Sanitary	Green	121.6kHz	0162-0001-1	60767
Telephone	Orange	101.4kHz	0163-0001-1	60768
Gas	Yellow	83.0kHz	0164-0001-1	60769
Cable TV	Orange/Black	77.0kHz	0165-0001-1	60770
Non-Potable Water	Purple	66.35 kHz	0168-0001-1	11050

## Uni Marker™



- Electronically marks buried facilities for later relocation.
- Rugged polyethylene case ensures years of useful life.
- Small size and flat design attach easily to non-metallic utility box lids, hand holes and other buried enclosures.
- Location is simple with any modern marker locator.
- Range is 25% more than other similar-style markers.
- Signal peak ensures location within inches of the marker.
- Color coded by utility application.
- Lifetime limited warranty.

APPLICATION	COLOR	FREQUENCY	CAT NO.	UPC NO.
Power	Red	169.8kHz	0170-0001-1	60771
Water	Blue	145.7kHz	0171-0001-1	60772
Sanitary	Green	121.6kHz	0172-0001-1	60773
Telephone	Orange	101.4kHz	0173-0001-1	60774
Gas	Yellow	83.0kHz	0174-0001-1	60775
Cable TV	Orange/Black	77.0kHz	0175-0001-1	60776
Non-Potable/Gen I	Purple	66.35kHz	0178-0001-1	11059

## Kwik Cycle® Cable Tie Guns



The Standard Cable Tie Gun is for use with 5/64" to 3/16" wide cable ties (2.2 mm to 4.8 mm), and the gun is made of molded nylon.

The Heavy-duty Cable Tie Gun is for use with cable ties up to 1/4" wide (6.35 mm), and the gun is made of durable metal.

- Tension adjustment allows the user to adapt the tool to the size of the tie.
- Automatic cut-off eliminates sharp edges on ties.

CAT. NO.	UPC NO.	DESCRIPTION
45306	45306	Standard Cable Tie Gun
45300	45300	Heavy-Duty Cable Tie Gun

## CABLE & SERVICE TESTING

### PE 900 Series Telephone Test Sets



PE961

- Waterproof tested to an IEC IP67 rating, these test sets are so impervious to water they can actually withstand submersion.
- The PE961 features our DigAlert™ over-voltage alarm and lock-out function to eliminate the danger of damaging or knocking out digital service lines.
- The new PE961 provides full ADSL compatibility.
- 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.
- Three year warranty.

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
PE901	60492	Ground Start Cord Set
PE902	60493	Cord Set

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

### Tele-Mate® Communication Test Set



PE810

RPC

Replacement Piercing Clips (see page 248)

- Designed for communications wiring installation and repair to quickly verify the quality of a new installation.
- Affordable
- Headset for hands-free operation.
- Rugged design for demanding use.
- Compact design and durable belt clip make it easy to carry.
- Adjustable volume.
- Built-in ringer.
- Tone/Pulse dialing.
- Last number redial.
- Line polarity indication.
- Microphone mute.
- Data safe monitor mode.
- Replaceable premium cord set with telco-style clips.

CAT. NO.	UPC NO.	DESCRIPTION
PE810	60298	Tele-Mate® Communication Test Set
PE909	60785	Belt Clip

= REPLACEMENT PART = ACCESSORY

Voice • Data • Video

USA Tel: 800.435.0786  
Fax: 800.451.2632

Canada Tel: 800.435.0786  
Fax: 800.524.2853

International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

## Tele-Mate® Pro Telephone Test Set

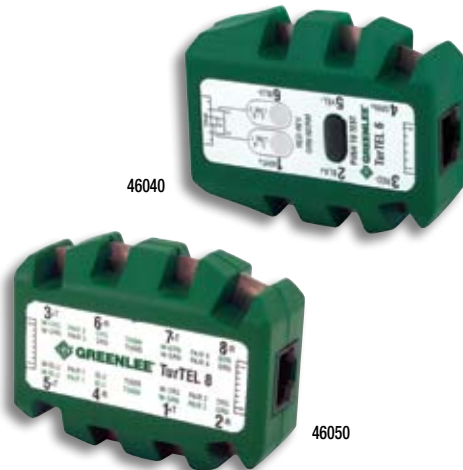


- The Tele-Mate Pro Telephone Test Set will help you deal with the increasing complexity of telecom installation and maintenance.
- Complete telephone set with ringer
- Phone-to-phone intercom
- Modular or alligator clip connection
- LCD Display in English, Spanish or French
- Caller ID with name display
- Call waiting Caller ID
- Missed call indication
- Line voltage and current display
- High voltage detect and lockout
- High current detect and lockout
- Amplified loudspeaker line monitor
- Headset or handset operation
- Tone and pulse dialing
- Large 10-location speed dialing memory
- Multi-memory redial

CAT. NO.	UPC NO.	DESCRIPTION
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PE830	60299	Tele-Mate Pro Telephone Test Set
PE909	60785	 Belt Clip

## TurTEL Modular Adapters/Polarity Tester



- 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 6 has two six-position, six-wire jacks.
- 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.
- The TurTEL 6 has an internal circuit to allow testing of polarity for either of two lines (pairs 4 to 5 or 3 to 6) – circuit allows verification of power and phone number assignments.
- Patch cord included.
- Heavy-duty stainless steel belt clip.
- Lifetime limited warranty.

CAT. NO.	UPC NO.	DESCRIPTION
----------	---------	-------------

46040	46040	TurTEL 6 Modular Adapter/Polarity Tester
46050	46050	TurTEL 8 Modular Adapter

## Sidekick® Plus Advanced Cable Maintenance Test Set



1155-5000

- Complete metering of voltage, current and resistance on copper cables
- Patented stress balance test
- Measurement of distance to opens
- Line quality tests for noise, loss and power influence
- Multimode wire tracing tone
- Resistance fault locator (RFL) and calculator
- Powerful Time Domain Reflectometer (TDR)
- Built-in loudspeaker dialing with phone book memory
- Auto-test mode with Pass/Fail
- USB download of test results and upload of software
- Analog meter or digital display selectable
- Big, easy-to-read display with backlight
- Rechargeable (included) or replaceable batteries
- Advanced cable diagnosis and troubleshooting in a single test set
- Quick testing and fast repairs
- Test data capture for sharing and records
- Easy to learn, especially for Sidekick family users
- Field upgradeable software

CAT. NO.	UPC NO.	DESCRIPTION
1155-5000	60886	Sidekick Plus Test Set

### SPECIFICATIONS

<b>Dimensions</b>	11 x 4.75 x 3 inches
<b>Weight</b>	3 lbs.
<b>Resistance</b>	100 megohm max
<b>Leakage</b>	100 megohm max
<b>DC Voltage</b>	0 to 300 Volts DC
<b>AC Voltage</b>	0 to 250 Vrms
<b>Stress Balance</b>	0 to 82 dBmC
<b>RFL</b>	20 megohm, distance to 2 megohm
<b>TDR Range</b>	33 kilofeet
<b>Operating Temp.</b>	14°F to +120°F
<b>Power</b>	Rechargeable Battery Pack or Six AA batteries

## 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.

CAT. NO.	UPC NO.	DESCRIPTION
1137-5002	60526	Sidekick T&N
1134-1002	60752	Case

### SPECIFICATIONS

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

## Sidekick® T&Nd



- 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.

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

### SPECIFICATIONS

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

## Sidekick® V.O.C.



- 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.

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

### SPECIFICATIONS

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

## Sidekick® 7B



- 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.

CAT. NO.	UPC NO.	DESCRIPTION
1134-5029	60525	Sidekick 7B
1134-1002	60752	Case

### SPECIFICATIONS

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

## Precision Tone Generator



- 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.
- 1-year warranty.
- Battery-operated (1 – 6V lantern included).

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

### SPECIFICATIONS

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

## Load Coil Detector



- Designed for the telecommunications market, the 88 Load Coil Detector will identify the presence and count the number of load coils on an active or inactive circuit.
- No complicated screens or test instructions to decipher.
- Designed to withstand the rigors of daily use, the tester speeds troubleshooting dedicated data circuits. Simply connect the test leads and turn the switch.
- While gradually turning the control, the display will “kick” to signify each coil detected on the pair.
- Accurately identifies and counts up to four load coils on the circuit under test.
- 1-year warranty.

### SPECIFICATIONS

<b>Power Requirements</b>	One 9V battery
<b>Battery Life</b>	100 hours nominal
<b>Construction</b>	High impact ABS plastic
<b>Dimensions</b>	4 x 2.25 x 1.5"
<b>Weight</b>	5.8 oz. with battery

CAT. NO.	UPC NO.	DESCRIPTION
88	08656	Load Coil Detector

## T-Bug® Digital Signal Identifier




- 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 pairs.
- 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

## TelScout® TS100



- Twisted Pair and Coax Testing in a Single Unit (optional).
- One-Step Setup.
- Automatic and Manual Instrument Control Mode.
- 45 kilofeet Fault Location Capability.
- Rugged – Survives 6 foot (2m) Drop.
- Powered from AC Mains or Rechargeable Internal Battery.
- Single-Button Zoom Function.
- Short Pulse Width Option (Includes Coax Testing Capability).
- 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).
- Internal Memory Waveform Storage and Trace Upload to PC Software (MCTAP-Option).
- Serial Printer Output for Stored or Displayed Waveforms.
- Accurate ( $\pm 3$  ft. at 10,000 ft.)
- On-line Tutorials.
- Large Backlit Display.

CAT. NO.	UPC NO.	DESCRIPTION
TS100-01	60520	TelScout TS100-01 Metallic TDR
650391700	60754	 Leads

### SPECIFICATIONS

#### Environmental

Temperature –  
 Operating: 17° F to 92° F (-15° C to +60° C).  
 Non-operating: 12° F to 97° F (-20° C to +65° C).  
 Humidity – 95% RH, non-condensing.  
 Shock (test specification) – Survives drop of 2 m to concrete in standard soft case.  
 Safety – EN 61010-1 and EN61010-031.  
 EMC – EN61326.

#### Power

Mains Operation –  
 Voltage Ranges: 110 V, 220 V, 240 V with appropriate AC to DC adapter.  
 Battery Operation –  
 Operating Time: 6 hrs. continuous.  
 Battery Saver: Selectable for 5 to 30 minutes or disabled.

#### Physical

Dimensions	in.	mm
Height	12	30
Width	10	25
Depth	3.5	9
<hr/>		
Weight	lb.	kg
Net	6.4	3

## TelScout® TS90



- 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

CAT. NO.	UPC NO.	DESCRIPTION
TS90	60522	TelScout TS90
012154500	60740	Leads
THM5BAT	60756	Rechargeable Battery Pack

### 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.

#### Physical

Dimensions	in.	mm
Height	5.6	141
Width	8.3	211
Depth	1.8	43
<hr/>		
Weight	lb.	kg
Net	2.2	1

## 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
TV90	12600	TV90 CableScout TDR
THM5BAT	60756	Rechargeable Battery Pack

### 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

Compliant: UL, FCC EMI, CAN/CSA, EN, and CE

= REPLACEMENT PART = ACCESSORY

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Canada Tel: 800.435.0786  
Fax: 800.524.2853

International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

## CableScout™ TV220TDR



- CableScout TV220: High Performance Time Domain Reflectometer for Coaxial Applications.
- The TV220 is designed to quickly locate faults that effect digital services in the Cable TV Network.
- High Frequency acquisition system exposes faults invisible to other TDR's.
- High signal-to-noise ration (SNR) allows for precision multiple fault location accuracy.

CAT. NO.	UPC NO.	DESCRIPTION
TV220	12599	CableScout TV220TDR

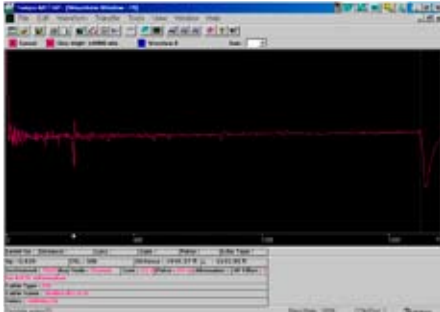
### SPECIFICATIONS

- Easy to operate with on-board Tutorials
- Automatic or manual test features
- One-button zoom control.
- Trace comparison mode
- Intermittent Fault location
- Automatic event return loss
- Input protection to 400 VDC + Peak AC
- Internal memory waveform storage and trace upload to PC Software (MCTAP- Option).
- Serial output connector - print directly from unit
- Precision accuracy to +/- 4 ft. at 12,000'
- High-resolution 1 (ns) short pulse width.
- Rugged - designed for harsh environments
- Large 7.2-in. high-resolution backlit display.
- International language and power supply options

### Environmental

- Temperature:
  - Operating: 22° F to 72°F (-10° C to +40° 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: Internal Lead Acid rechargeable. 8 hours continuous operation with adjustable battery saver modes
- Standards Compliant: UL, FCC EMI, CAN/CSA, EN and CE

## MCTAP Waveform Analysis Software for TS100/TV220



- Metallic Cable Trace Analysis Package (MCTAP) is a Windows based program for viewing and analyzing wave forms acquired by the Tempo TV220 and TS100 TDR. MCTAP may be installed on computers running Windows 95/98, Windows NT, Windows ME, 2000, XP.

CAT. NO.	UPC NO.	DESCRIPTION
MCTAP	60755	MCTAP Software

### SPECIFICATIONS

- TDR waveforms that are saved in the field can be uploaded to a computer for data management and analysis
- Waveform data can be exported as BMP, JPEG, and TIF file formats for easy communication of data
- Waveform data can be exported as text or spreadsheet compatible files for use in word processors or spreadsheet programs

## FIBER TERMINATION & TESTING

### Fiber Optic Kevlar® Shears



- Easily cuts through DuPont Kevlar or other aramid yarn.
- Serrated blade prevents slipping.
- High-leverage handles facilitate cutting.
- Cushioned-grip handle for comfortable use.
- Manufactured from hot-forged, high-carbon steel for long life.

CAT. NO.	UPC NO.	DESCRIPTION
45586	45586	Fiber Optic Kevlar Shears

*Kevlar is a registered trademark of E.I. DuPont, Inc.*

### Ceramic Kevlar® Cutter



- Quickly and precisely trims the Kevlar strength member in fiber optic cable.
- Ceramic blades never need sharpening and have a long life.
- Handle is tough and durable.

CAT. NO.	UPC NO.	DESCRIPTION
45483	45483	Ceramic Kevlar Cutter

*Kevlar is a registered trademark of E.I. DuPont, Inc.*

### Fiber Optic Carbide-Tipped Scribe



- Provides consistently good cleaves.
- 30° wedge tip is made of carbide to ensure long life.
- Made in the USA.

CAT. NO.	UPC NO.	DESCRIPTION
45593	45593	Fiber Optic Carbide-Tipped Scribe

### Pocket Cable Stripper



- Specifically designed for stripping power and telecommunications cables from 3/16" to 1-1/8" in diameter (4.5 mm to 29 mm).
- Easy blade depth adjustment.
- 90° blade rotation allows longitudinal, circular and spiral slitting of insulation.

CAT. NO.	UPC NO.	DESCRIPTION
1900	45824	Pocket Cable Stripper
07915	07915	Cutting Blade

= REPLACEMENT PART = ACCESSORY

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Fax: 800.451.2632

Canada Tel: 800.435.0786  
Fax: 800.524.2853

International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

## Pocket Cable Stripper



- Specifically designed for stripping power and telecommunications cables from 3/4" to 1-1/2" in diameter (19 mm to 40 mm).
- Strips solid conductor, stranded conductor and multiple conductor cables.
- Easy blade depth adjustment.
- Blade rotates for circular, longitudinal and spiral cuts.

CAT. NO.	UPC NO.	DESCRIPTION
1901	45823	Pocket Cable Stripper
07915	07915	<b>R</b> Cutting Blade

## Fiber Optic Buffer Stripper



- Easily removes the buffer from both 250 and 900 micron cables.
- Preset at the factory – no adjustments required.
- Cushioned-grip ergonomic handles for comfortable use.
- Will not scratch or nick glass or fiber.
- 1.0 mm diameter stripping hole strips most fiber jackets.
- Made in the USA.

CAT. NO.	UPC NO.	DESCRIPTION
45589	45589	Fiber Optic Buffer Stripper

## Pro-Plus Wire Stripper



- Strips the outer jacket off fiber optic cable.
- Extra-long, curved and cushioned handles add comfort and reduce hand fatigue.
- Lock tab protects cutting edges during storage.
- Made in the USA.

CAT. NO.	UPC NO.	DESCRIPTION
1955	06857	Pro-Plus Wire Stripper, 10-18 AWG

## Kwik Cycle® 8" Crimp Tool for Fiber Optic Connectors



- Features a smaller handle spread with a comfortable, ergonomically designed handle.
- Ideal for the hard to handle smaller connectors, such as fiber optic connectors and open barrel contacts.
- Die sets are easily interchangeable with a screwdriver.
- Includes die set.

CAT. NO.	UPC NO.	DESCRIPTION
45637	45637	8" Fiber Optic Connector Crimp Tool

		DESCRIPTION	CAT. NO.	UPC NO.
CONNECTION	FEATURES		TOOL WITH DIE	
		0.151" (3.84 mm) hex cavity 0.178" (4.52 mm) hex cavity 0.213" (5.41 mm) hex cavity universal fiber optic die	45637	45637

## Kwik Cycle® 9" Crimp Tool for Fiber Optic Connectors



- Used to manually crimp a wide variety of connectors and terminals to factory specifications.
- Frame features a precision full-cycle ratchet for accurate, repeatable crimps every cycle.
- Crimp release lever improves throughput by eliminating rejected terminations due to improper connector positioning.
- Frame features a tension adjustment preset at the factory for optimum performance.
- High-leverage force and ergonomically-designed handle provides comfortable use.
- Frame and dies are manufactured from heat-treated, hardened tool steel for superior function and long life.
- All die sets are easily interchangeable with a simple screwdriver.

CAT. NO.	UPC NO.	DESCRIPTION
45504	45504	Kwik Cycle 9" Crimp Frame
45572	45572	Fiber Optic Die Set

DESCRIPTION		CAT. NO.	UPC NO.
CONNECTION	FEATURES	DIE ONLY	
	 0-style crimp cavities with dimensions of 0.131" x 0.162" x 0.196" (3.33 mm x 4.11 mm x 4.98 mm) For AMP Optimate SMA-style fiber optic connectors	45572	45572



**45658 Fiber Optic Termination Kit**  
 This complete kit contains our Kwik Cycle® 9" Crimp Frame and all of the tools and consumables necessary for epoxy and polish connector terminations. See page 281 for more details about our Fiber Optic Termination Kit.

## Fiber Optic Co-Polymer Polishing Puck



- Used for standard ST, SC and FC connectors with 2.5 mm ferrules.

CAT. NO.	UPC NO.	DESCRIPTION
45598	45598	Fiber Optic Co-Polymer Polishing Puck

## Fiber Optic Stainless Steel Polishing Puck



- Used for standard ST, SC and FC connectors with 2.5 mm ferrules.
- Made of stainless steel to last for years of termination.
- Precision hole prevents even the slightest misalignment.
- Grooves in the puck's surface eliminate "sticking" during wet polishes.

CAT. NO.	UPC NO.	DESCRIPTION
45599	45599	Fiber Optic Stainless Steel Polishing Puck

## Fiber Optic Polishing Pad



- Resilient pad is perfect for PC (physical contact) pre-radiused ferrules.
- 3" x 8" (7.6 x 203.2 mm)
- 70 durometer.

CAT. NO.	UPC NO.	DESCRIPTION
45612	45612	Fiber Optic Polishing Pad

## Fiber Optic Inspection Microscope





- High-powered microscope is used to check a connector's endface for excess epoxy, core or cladding chips or other irregularities that degrade optical performance of the connector.
- Laser safety filter protects eyesight.
- Rubber eyecup for comfortable use.
- Rugged aluminum housing.
- 200X magnification.
- Universal adapter works with ST, SC or FC connectors.
- Includes padded nylon carrying case.

CAT. NO.	UPC NO.	DESCRIPTION
45651	45651	Fiber Optic Inspection Microscope

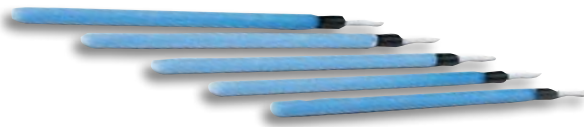
## Connector Cleaning Systems



- Special lint-free fabric-on-a-reel quickly cleans ferrule endfaces of dust, oil and other contaminants.
- Cleaning system is completely self-contained.
- No need for alcohol.
- A single cleaning reel can be used for over 400 ferrule cleanings.
- ReelCleaner™ can be used on all connector types including MTP and MT-RJ.

CAT. NO.	UPC NO.	DESCRIPTION
948	60692	ReelCleaner Connector Cleaning System
948/2	10792	 Reel Set, 2/Package
945/ESD/1	24053	 Reel Set, 1/Package

## Adapter Cleaning Wands



- Specially-created, lint-free materials clean hard-to-reach fiber optic interfaces, bulkhead adapters and ferrule alignment sleeves.

CAT. NO.	UPC NO.	DESCRIPTION
946	60571	2.5 mm Cleaning Wands, 10/Package
946K	60689	2.5 mm Cleaning Wands, 200/Box
947	60690	1.25 mm Cleaning Wands, 10/Package
947K	60691	1.25 mm Cleaning Wands, 200/Box

## Fiber Optic Consumables Kit



- Contains the most commonly used consumables for epoxy and polish fiber optic terminations.

CAT. NO.	UPC NO.	DESCRIPTION
45656	45656	Fiber Optic Consumables Kit

## Fiber Optic Hand Tools Kit



- Contains the most commonly used fiber optic termination tools in a durable Cordura® Plus zipper case.

CAT. NO.	UPC NO.	DESCRIPTION
45655	45655	Fiber Optic Hand Tools Kit

**Kit contents may be purchased separately:**

45586	45586	Fiber Optic Kevlar® Shears
1955	06857	Pro-Plus Wire Stripper, 10-18 AWG
45589	45589	Fiber Optic Buffer Stripper
45593	45593	Carbide-tipped Scribe
45637	45637	Kwik Cycle® 8" Crimp Frame with 0.151", 0.178", 0.213" Hex Cavities
45651	45651	Fiber Optic Inspection Microscope
45599	45599	Stainless Steel Polishing Puck
45612	45612	Resilient Polishing Pad, 3" x 8" (7.6 x 203.2 mm)
45644	45644	Zipper Case

## Fiber Optic Termination Kit



- Contains all of the tools and consumable materials necessary for epoxy and polish connector terminations.
- Durable Cordura® Plus carrying case protects and organizes tools and includes see-through pouches for storing connectors.
- Outside pockets provide convenient storage of instruction manuals or worksite documents.

CAT. NO.	UPC NO.	DESCRIPTION
45658	45658	Fiber Optic Termination Kit

**Kit contents may be purchased separately:**

45586	45586	Fiber Optic Kevlar® Shears
1955	06857	Pro-Plus Wire Stripper, 10-18 AWG
45589	45589	Fiber Optic Buffer Stripper
45593	45593	Carbide-Tipped Scribe
45637	45637	Kwik Cycle® 8" Crimp Frame with 0.151", 0.178", 0.213" Hex Cavities
45651	45651	Fiber Optic Inspection Microscope
45599	45599	Stainless Steel Polishing Puck
45612	45612	Resilient Polishing Pad, 3" x 8" (7.6 x 203.2 mm)
45639	45639	Carrying Case

**Kit includes the following consumable items which are not sold separately:**

50 Sheets Polishing Paper, 0.3 micron	100 Lint-free Wipes
50 Sheets Polishing Paper, 1 micron	10 Alcohol Wipes
50 Sheets Polishing Paper, 5 micron	1 Alcohol Bottle
10 ml (0.34 oz.) Opticure Adhesive	1 Water Bottle
26 ml (0.9 oz.) Opticure Primer	1 Fiber Debris Disposal Container
1 Pair Safety Glasses	10 Syringes
1 Plastic Utility Box	10 Needle Tips
1 Felt-tipped Marker	

## Fiber Optic Cut and Strip Kit



- Includes three basic tools for cutting and stripping optical fiber cables in a durable Cordura® Plus zipper case.

CAT. NO.	UPC NO.	DESCRIPTION
45657	45657	Fiber Optic Cut and Strip Kit

### Kit contents may be purchased separately:

45586	45586	Fiber Optic Kevlar® Shears
1955	06857	Pro-Plus Wire Stripper, 10-18 AWG
45589	45589	Fiber Optic Buffer Stripper

## 525-90 PON Optical Loss Test Set



- 1310/1490/1550nm.
- Automated Insertion/Return Loss measurements.
- One button AUTOTEST.
- Stores 1000 measurement results.
- Cable acceptance software for report generation and fiber optic cable management.
- Optical power meter.
- Optical return loss meter.
- Rechargeable batteries.
- Rugged package for outside plant environment.

CAT. NO.	UPC NO.	DESCRIPTION
525-90	20945	PON Optical Loss Test Set (1310/1490/1550nm)

### SPECIFICATIONS

#### AUTOTEST INSERTION LOSS

Test Port	40dB
Measurement Range	
Calibrated Wavelengths	1310, 1490, 1550nm

#### RETURN LOSS

Measurement Range	10 to 45dB
Accuracy	.5dB

#### GENERAL SPECIFICATIONS

Display Type	Graphics Liquid Crystal with Backlight
Fiber Type	Singlemode 9/125 um
Standard Connector Type	FC, SC, ST other connector options available
Laser Classification	Class 1 CFR 1040
Operating Temperature	0° C to +50° C
Storage Temperature	-20° C to +60° C
Relative Humidity	0 to 95% RH non-condensing
Size	7.6 x 4.3 x 2.3 in. (19.3 x 10.9 x 5.8 cm)
Weight	2.2 lbs. (1.0 kg)
Power	Internal rechargeable NiMH
Battery Life	> 8 hours

### SPECIFICATIONS

#### POWER METER

Detector Type	InGaAs
Display Range	+10dBm to -70 dBm
Calibrated Wavelengths	850, 980, 1300, 1310, 1490, 1550, 1625
Absolute Accuracy	<±0.25 dB
Resolution	0.01 dB
Measurement Units	dBm, dB

#### SOURCE

Center Wavelength	1310nm ±30nm	1490nm ±30nm	1550nm ±30nm
Spectral Width	<5	<5	<5
Output Power	>-10dBm	>-10dBm	>-10dBm
Output Stability	<±0.15dB/8 hrs	<±0.15dB/8 hrs	<±0.15dB/8 hrs
Connector Type	UCI-APC polish adapter 9-125 SM SOC Adapter		

## 525-60 Smart Optical Loss Test Set



- Automated bi-directional testing.
- Optical return loss measurements.
- Dual wavelength insertion loss measurements.
- Multi-mode and Single-mode models feature user settable PASS/FAIL thresholds.
- Communications between units via messaging.
- Wide dynamic range optical power meter.
- Test record storage and data management software.
- Rugged outside plant instrument package.
- Universal connector interface.

CAT. NO.	UPC NO.	DESCRIPTION
525-60-PCX	20942	1310/1550nm Smart Optical Loss Test Set - PC Connectors
525-60-APC	20943	1310/1550nm Smart Optical Loss Test Set - APC Connectors
525-60RL-APC	20944	1310/1550nm Smart Optical Loss Test Set - APC Connectors

### SPECIFICATIONS

	525-60-PCX		525-60-APC		525-60RL-APC	
Instrument Type	Singlemode Smart Loss Test Set		Singlemode Smart Loss Test Set		Singlemode Smart Loss Test Set	
Interface Connector	PC Connector Interface		APC Connector Interface		APC Connector Interface	
AUTOTEST measurements	AUTOTEST performs Insertion Loss Test and Manual Return Loss		AUTOTEST performs Insertion Loss Test and Manual Return Loss		AUTOTEST performs Insertion and Return Loss in one Test	
<b>POWER METER SPECIFICATIONS</b>						
Detector Type	InGaAs		InGaAs		InGaAs	
Display Range	+10dBm to -70dBm		+10dBm to -70dBm		+10dBm to -70dBm	
Calibrated Wavelengths	850, 980, 1300, 1310, 1550, 1480, 1625		850, 980, 1300, 1310, 1550, 1480, 1625		850, 980, 1300, 1310, 1550, 1480, 1625	
Absolute Accuracy	±0.25dB		±0.25dB		±0.25dB	
Resolution	0.01dB		0.01dB		0.01dB	
Measurement Units	dBm, dB, W		dBm, dB, W		dBm, dB, W	
Connector Type	UCI-UPC flat polish adapter 9/125SM		UCI-APC polish adapter 9/125 SM		UCI-APC polish adapter 9/125 SM	
<b>SOURCE SPECIFICATIONS</b>						
Center Wavelength	1310nm ±30nm	1550nm ±30nm	1310nm ±30nm	1550nm ±30nm	1310nm ±30nm	1550nm ±30nm
Spectral Width	<5	<5	<5	<5	<5	<5
Output Power	>-10 dBm	>-10 dBm	>-10 dBm	>-10 dBm	>-10 dBm	>-10 dBm
Output Stability	±0.15dB/ 8 hours	±0.15dB 8 hours	±0.15dB/ 8 hours	±0.15dB 8 hours	±0.15dB/ 8 hours	±0.15dB 8 hours
<b>AUTOTEST INSERTION LOSS SPECIFICATIONS</b>						
Test Port Measurement Range	40dB		40dB		40dB	
Calibrated Wavelengths	1310, 1550nm		1310, 1550nm		1310, 1550nm	
<b>RETURN LOSS SPECIFICATIONS</b>						
Measurement Range	10 to 45dB		10 to 65dB		10 to 65dB	
Accuracy	.5dB		.5dB		.5dB	
<b>GENERAL DESCRIPTIONS</b>						
Display Type	Graphics Liquid Crystal with Backlight		Graphics Liquid Crystal with Backlight		Graphics Liquid Crystal with Backlight	
Fiber Type	Singlemode 9/125 um		Singlemode 9/125 um		Singlemode 9/125 um	
Standard Connector Type	FC, SC, ST other connector options available		FC, SC, ST other connector options available		FC, SC, ST other connector options available	
Laser Classification	Class 1 CFR 1040		Class 1 CFR 1040		Class 1 CFR 1040	
Operating Temperature	0°C to +50°C		0°C to +50°C		0°C to +50°C	
Storage Temperature	-20°C to +60°C		-20°C to +60°C		-20°C to +60°C	
Relative Humidity	0 to 95% RH non-condensing		0 to 95% RH non-condensing		0 to 95% RH non-condensing	
Size	19.3 x 10.9 x 5.8 cm (7.6 x 4.3 x 2.3 in)		19.3 x 10.9 x 5.8 cm (7.6 x 4.3 x 2.3 in)		19.3 x 10.9 x 5.8 cm (7.6 x 4.3 x 2.3 in)	
Weight	1.0kg (2.2 lbs)		1.0kg (2.2 lbs)		1.0kg (2.2 lbs)	
Power	Internal rechargeable NiMH		Internal rechargeable NiMH		Internal rechargeable NiMH	
Battery Life	>8 hours		>8 hours		>8 hours	

## 525-30 Smart Optical Loss Test Set



### SPECIFICATIONS

#### POWER METER

<b>Detector Type</b>	InGaAs
<b>Display Range</b>	+10dBm to -70dBm
<b>Calibrated Wavelengths</b>	850, 980, 1300, 1310, 1550, 1480, 1625
<b>Absolute Accuracy</b>	<±0.25 dB
<b>Resolution</b>	0.01 dB
<b>Measurement Units</b>	dBm, dB, W

#### SOURCE

<b>Center Wavelength</b>	850nm ±30nm	1300nm ±30nm
<b>Spectral Width</b>	<170	<170
<b>Output Power</b>	>-21dBm	>-21dBm
<b>Output Stability</b>	<±0.10dB/8 hrs	<±0.10dB/8 hrs
<b>HOMP</b>		0.03dB to 0.80dB
<b>Connector Type</b>	UCI-APC flat polish adapter 62.5/125 SM	

- Automated bi-directional testing.
- Optical return loss measurements.
- Dual wavelength insertion loss measurements.
- Multi-mode and Single-mode models feature user settable PASS/FAIL thresholds.
- Communications between units via messaging.
- Wide dynamic range optical power meter.
- Test record storage and data management software.
- Rugged outside plant instrument package.
- Universal connector interface.

CAT. NO.	UPC NO.	DESCRIPTION
525-30-PCX	49981	850/1300nm Smart Optical Loss Test Set - PC Connectors

### AUTOTEST INSERTION LOSS

#### Test Port

<b>Measurement Range</b>	25dB
<b>Calibrated Wavelengths</b>	850, 1300nm

### GENERAL SPECIFICATIONS

<b>Display Type</b>	Graphics Liquid Crystal with Backlight
<b>Fiber Type</b>	Multimode 62.5/125 um
<b>Standard Connector Type</b>	FC, SC, ST or other connector options available
<b>Operating Temperature</b>	0° C to +50° C
<b>Storage Temperature</b>	-20° C to +60° C
<b>Relative Humidity</b>	0 to 95% RH non-condensing
<b>Size</b>	7.6 x 4.3 x 2.3 in. (19.3 x 10.9 x 5.8 cm)
<b>Weight</b>	2.2 lbs. (1.0 kg)
<b>Power</b>	Internal rechargeable NiMH
<b>Battery Life</b>	> 8 hours

## Fiber Optic Power Meter



- Easy to use - three buttons control all functions.
- Loss measurements in (dB); power measurements in (dBm).
- 0.01dB measurement resolution.
- Multi-wavelength storage - store and recall reference power levels for faster, more efficient measurements.
- Snap-On connector interface adapts to FC, SC and ST connectors.
- Long battery life.
- User selectable auto shut-off.
- Rugged and splash-proof.
- Economically priced.

CAT. NO.	UPC NO.	DESCRIPTION
560XL	84485	Fiber Optic Power Meter

### SPECIFICATIONS

#### OPTICAL

<b>Calibration Wavelengths</b>	850nm, 1300nm, 1310nm and 1550nm
<b>Power Range</b>	+3 dBm to -60 dBm
<b>Accuracy</b>	± 0.25dB
<b>Linearity</b>	
+3dBm to -3dBm	±0.5dB
-3dBm to -50dBm	±0.05dB
-50dBm to -60dBm	±0.5dB
<b>Resolution</b>	0.01dB
<b>Power Requirements</b>	Two AA size 1.5V batteries (approx. 100 hours continuous operation)
<b>Connector interface</b>	FC, SC or ST SOC Adapter

### SPECIFICATIONS

#### ENVIRONMENTAL

<b>Operating temperature</b>	-15° C to +55° C
<b>Storage temperature</b>	-35° C to +70° C
<b>Humidity</b>	0 to 95% non-condensing
<b>Dimensions</b>	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)
<b>Weight</b>	241g (8.5 oz.)
<b>CE</b>	EN61010; EN50081-1: 1992; EN55011, Group 1, Class A EN50082-1: 1992 IEC 801-2, -3, -4

## 850/1300nm LED Source



- 850/1300nm wavelengths.
- Stable calibrated output.
- Easy to use.
- Continuous wave and modulated output.
- Fixed connector interface FC, SC or ST.
- Long battery life - approx. 80 hours.
- User selectable auto shut-off.
- Rugged and splash-proof.
- Economically priced.

CAT. NO.	UPC NO.	DESCRIPTION
570XL-FC	84486	850/1300nm LED source w/FC interface
570XL-SC	84487	850/1300nm LED source w/SC interface
570XL-ST	84488	850/1300nm LED source w/ST interface

### SPECIFICATIONS

#### OPTICAL

<b>Center Wavelengths</b>	850nm	1300nm
<b>Range (typical)</b>	840nm to 880nm	1270nm to 1345nm
<b>Max. spectral width</b>	55nm	150nm
<b>Stability (1 hour)</b>	±0.05dB	±0.05dB
<b>Typical power output</b>		
<b>100/140um</b>	-13dBm	-20dBm
<b>62.5/125um</b>	-13dBm	-20dBm
<b>50/125um</b>	-14dBm	-21dBm
<b>Modulation frequency</b>	270 kHz, 1 kHz and 2 kHz	270 kHz, 1 kHz and 2 kHz
<b>Power Requirements</b>	Two AA size 1.5V batteries	Two AA size 1.5V batteries
<i>(approx. 80 hours continuous operation)</i>		
<b>Connector interface</b>	FC, SC or ST	FC, SC or ST

### SPECIFICATIONS

#### ENVIRONMENTAL

<b>Operating temp.</b>	-15° C to +55° C
<b>Storage temp.</b>	-35° C to +70° C
<b>Humidity</b>	0 to 95% non-condensing
<b>Dimensions</b>	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)
<b>Weight</b>	241g (8.5 oz.)
<b>CE</b>	EN61010; EN50081-1: 1992; EN55011, Group 1, Class A EN50082-1: 1992 IEC 801-2, -3, -4

## 1310/1550nm Laser Source



- 1310/1550nm wavelengths.
- Stable calibrated output.
- Easy to use.
- Continuous wave and modulated output.
- Fixed connect interface FC, SC or ST.
- Long battery life - approx. 80 hours.
- User selectable auto shut-off.
- Rugged and splash-proof.
- Economically priced.

CAT. NO.	UPC NO.	DESCRIPTION
580XL-FC	84489	1310/1550nm Laser source w/FC interface
580XL-SC	84490	1310/1550nm Laser source w/SC interface
580XL-ST	84491	1310/1550nm Laser source w/ST interface

### SPECIFICATIONS

#### OPTICAL

<b>Center Wavelengths</b>	1310nm	1550nm
<b>Range (typical)</b>	1280nm to 1340nm	1520nm to 1580nm
<b>Max. spectral width</b>	<5nm	<5nm
<b>Stability (1 hour)</b>	±0.05dB	±0.05dB
<b>Typical power output (9/125)</b>		
<b>Minimum</b>	-8dBm	-8dBm
<b>Typical</b>	-7dBm	-7dBm
<b>Modulation frequency</b>	270 kHz, 1 kHz and 2 kHz	270 kHz, 1 kHz and 2 kHz
<b>Power Requirements</b>	Two AA size 1.5V batteries	Two AA size 1.5V batteries
<i>(approx. 80 hours continuous operation)</i>		
<b>Connector interface</b>	FC, SC or ST	FC, SC or ST

### SPECIFICATIONS

#### ENVIRONMENTAL

<b>Operating temp.</b>	-15° C to +55° C
<b>Storage temp.</b>	-35° C to +70° C
<b>Humidity</b>	0 to 95% non-condensing
<b>Dimensions</b>	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)
<b>Weight</b>	241g (8.5 oz.)
<b>CE</b>	EN61010; EN50081-1: 1992; EN55011, Group 1, Class A EN50082-1: 1992 IEC 801-2, -3, -4
<b>CDRH Laser Class</b>	Class 1

## Visual Fault Finder



### SPECIFICATIONS

#### ENVIRONMENTAL

<b>Operating temp.</b>	-10° C to +50° C
<b>Storage temp.</b>	-40° C to +60° C
<b>Humidity</b>	0 to 95% non-condensing
<b>Dimensions</b>	Length: 22 cm (9.0 in.); Diameter: 2.54 cm (1 in.)
<b>Weight</b>	200g (7 oz.)
<b>CDRH Laser Class:</b>	Class IIIa
<b>CE</b>	IEC 60-1-2 portion of the EN50082-1 ESD immunity requirement EN50082-1: 1992 IEC 801-2, -3, -4

- Continuous wave output mode for steady fault location.
- Find breaks to 3km.
- Blinking output mode increases viewing contrast.
- Easy to use quick interface fits all 2.5mm connector interfaces (FC, SC, ST).
- 1.0mW output power.
- Ergonomic rotary switch permits easy one-handed operation.
- Rugged, compact and splash-proof aluminum design.
- Two AA batteries provide 48 hours continuous operation.
- Nylon belt holster included.

CAT. NO.	UPC NO.	DESCRIPTION
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170XL	84501	Visual Fault Finder
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### SPECIFICATIONS

#### OPTICAL

<b>Light source type</b>	635nm red laser diode
<b>Center wavelength</b>	
<b>Nominal</b>	635nm
<b>Range (typical)</b>	630nm to 640nm
<b>Spectral width (FWHM)</b>	<2nm
<b>Typical output power</b>	
<b>Max. into SMF-28 fiber</b>	1.0mW (0dBm)
<b>Min. CW output mode</b>	316uW (-5 dBm)
<b>Blink frequency in MOD mode</b>	<3hz approximate)
<b>Power Requirements</b>	Two AA size 1.5V batteries (Battery life Approx. 48 hours continuous operation)
<b>Connector interface</b>	Standard "Quick Connect" universal 2.5 mm receptacle

## Multimode Fiber Optic Test Set



- Insertion loss test set for multimode fiber.
- 850/1300nm loss measurements.
- Connector for FC, SC or ST.
- Rugged package design.
- Easy to use portable package.
- Economically priced.

CAT. NO.	UPC NO.	DESCRIPTION
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5670-FC	84492	Multimode Fiber Optic Test Set w/FC interface
5670-SC	84493	Multimode Fiber Optic Test Set w/SC interface
5670-ST	84494	Multimode Fiber Optic Test Set w/ST interface

### KIT SPECIFICATIONS

#### 5670-FC INCLUDES:

- 560XL Optical Power Meter
- 570XL-FC 850/1300nm LED Source w/FC Connector
- T1020 FC/PC SOC Adapter
- 914B Carrying Case

#### 5670-SC INCLUDES:

- 560XL Optical Power Meter
- 570XL-SC 850/1300nm LED Source w/SC Connector
- 1062 SC/PC SOC Adapter
- 914B Carrying Case

#### 5670-ST INCLUDES:

- 560XL Optical Power Meter
- 570XL-ST 850/1300nm LED Source w/ST Connector
- T1030 ST/PC SOC Adapter
- 914B Carrying Case

## Singlemode Fiber Optic Test Set



- Insertion loss test set for singlemode fiber.
- 1310/1550nm loss measurements.
- Connector for FC, SC or ST.
- Rugged package design.
- Easy to use portable package.
- Economically priced.

CAT. NO.	UPC NO.	DESCRIPTION
5680-FC	84495	Singlemode Fiber Optic Test Set w/FC interface
5680-SC	84496	Singlemode Fiber Optic Test Set w/SC interface
5680-ST	84497	Singlemode Fiber Optic Test Set w/ST interface

### KIT SPECIFICATIONS

#### 5680-FC INCLUDES:

- 560XL Optical Power Meter
- 580XL-FC 1310/1550nm Laser Source w/FC Connector
- T1020 FC/PC SOC Adapter
- 914B Carrying Case

#### 5680-SC INCLUDES:

- 560XL Optical Power Meter
- 580XL-SC 1310/1550nm Laser Source w/SC Connector
- 1062 SC/PC SOC Adapter
- 914B Carrying Case

#### 5680-ST INCLUDES:

- 560XL Optical Power Meter
- 580XL-ST 1310/1550nm Laser Source w/ST Connector
- T1030 ST/PC SOC Adapter
- 914B Carrying Case

## Multimode and Singlemode Fiber Optic Test Set



- Insertion loss test set for multimode and singlemode fiber.
- 850/1300nm Loss measurements.
- 1310/1550nm Loss measurements.
- Connector for FC, SC or ST.
- Rugged package design.
- Easy to use portable package.
- Economically priced.

CAT. NO.	UPC NO.	DESCRIPTION
5890-FC	84498	Multimode and Singlemode Fiber Optic Test Set w/FC interface
5890-SC	84499	Multimode and Singlemode Fiber Optic Test Set w/SC interface
5890-ST	84500	Multimode and Singlemode Fiber Optic Test Set w/ST interface

### KIT SPECIFICATIONS

#### 5890-FC INCLUDES:

- 560XL Optical Power Meter
- 570XL-FC 850/1300nm LED Source w/FC Connector
- 580XL-FC 1310/1550nm Laser Source w/FC Connector
- T1020 FC/PC SOC Adapter
- 915B Carrying Case

#### 5890-SC INCLUDES:

- 560XL Optical Power Meter
- 570XL-SC 850/1300nm LED Source w/SC Connector
- 580XL-SC 1310/1550nm Laser Source w/SC Connector
- 1062 SC/PC SOC Adapter
- 915B Carrying Case

#### 5890-ST INCLUDES:

- 560XL Optical Power Meter
- 570XL-ST 850/1300nm LED Source w/ST Connector
- 580XL-ST 1310/1550nm Laser Source w/ST Connector
- T1030 ST/PC SOC Adapter
- 915B Carrying Case

# 920XC Handheld Singlemode OTDR

**NEW**



- Economical
- Compact handheld design
- Easy to use
- Fast automated testing
- Up to 35db dynamic range
- Large backlight LCD display
- Measure length and defects of coiled fiber
- Fiber analysis software for data management and report generation
- RS-232/USB interface
- NiMH batteries for 5 hours continuous use

CAT. NO.	UPC NO. DESCRIPTION				
MODEL	POLISH	POWER	CONN	SUPPLY TYPE	
920XC-20C	UPC	NA	FC	89872	Singlemode 13101550nm
920XC-20C	UPC	EU	FC	89873	Singlemode 13101550nm
920XC-20C	UPC	JA	FC	89874	Singlemode 13101550nm
920XC-20C	UPC	UK	FC	89875	Singlemode 13101550nm
920XC-20C	UPC	AU	FC	89876	Singlemode 13101550nm
920XC-20C	UPC	NA	FC	89877	Singlemode 13101550nm
920XC-20C	UPC	EU	ST	89878	Singlemode 13101550nm
920XC-20C	UPC	JA	ST	89879	Singlemode 13101550nm
920XC-20C	UPC	UK	ST	89880	Singlemode 13101550nm
920XC-20C	UPC	AU	ST	89881	Singlemode 13101550nm
920XC-20C	UPC	NA	SC	89882	Singlemode 13101550nm
920XC-20C	UPC	EU	SC	89883	Singlemode 13101550nm
920XC-20C	UPC	JA	SC	89884	Singlemode 13101550nm
920XC-20C	UPC	UK	SC	89885	Singlemode 13101550nm
920XC-20C	UPC	AU	SC	89886	Singlemode 13101550nm
920XC-20C	APC	NA	FC	89887	Singlemode 13101550nm
920XC-20C	APC	EU	FC	89888	Singlemode 13101550nm
920XC-20C	APC	JA	FC	89889	Singlemode 13101550nm
920XC-20C	APC	UK	FC	89890	Singlemode 13101550nm
920XC-20C	APC	AU	FC	89891	Singlemode 13101550nm
920XC-20C	APC	NA	SC	89892	Singlemode 13101550nm
920XC-20C	APC	EU	SC	89893	Singlemode 13101550nm
920XC-20C	APC	JA	SC	89894	Singlemode 13101550nm
920XC-20C	APC	UK	SC	89895	Singlemode 13101550nm
920XC-20C	APC	AU	SC	89896	Singlemode 13101550nm

CAT. NO.	UPC NO. DESCRIPTION				
MODEL	POLISH	POWER	CONN	SUPPLY TYPE	
920XC-13A	UPC	NA	FC	89822	Singlemode 1310nm
920XC-13A	UPC	EU	FC	89823	Singlemode 1310nm
920XC-13A	UPC	JA	FC	89824	Singlemode 1310nm
920XC-13A	UPC	UK	FC	89825	Singlemode 1310nm
920XC-13A	UPC	AU	FC	89826	Singlemode 1310nm
920XC-13A	UPC	NA	ST	89827	Singlemode 1310nm
920XC-13A	UPC	EU	ST	89828	Singlemode 1310nm
920XC-13A	UPC	JA	ST	89829	Singlemode 1310nm
920XC-13A	UPC	UK	ST	89830	Singlemode 1310nm
920XC-13A	UPC	AU	ST	89831	Singlemode 1310nm
920XC-13A	UPC	NA	SC	89832	Singlemode 1310nm
920XC-13A	UPC	EU	SC	89833	Singlemode 1310nm
920XC-13A	UPC	JA	SC	89834	Singlemode 1310nm
920XC-13A	UPC	UK	SC	89835	Singlemode 1310nm
920XC-13A	UPC	AU	SC	89836	Singlemode 1310nm
920XC-13A	APC	NA	FC	89837	Singlemode 1310nm
920XC-13A	APC	EU	FC	89838	Singlemode 1310nm
920XC-13A	APC	JA	FC	89839	Singlemode 1310nm
920XC-13A	APC	UK	FC	89840	Singlemode 1310nm
920XC-13A	APC	AU	FC	89841	Singlemode 1310nm
920XC-13A	APC	NA	SC	89842	Singlemode 1310nm
920XC-13A	APC	EU	SC	89843	Singlemode 1310nm
920XC-13A	APC	JA	SC	89844	Singlemode 1310nm
920XC-13A	APC	UK	SC	89845	Singlemode 1310nm
920XC-13A	APC	AU	SC	89846	Singlemode 1310nm
920XC-15A	UPC	NA	FC	89847	Singlemode 1550nm
920XC-15A	UPC	EU	FC	89848	Singlemode 1550nm
920XC-15A	UPC	JA	FC	89849	Singlemode 1550nm
920XC-15A	UPC	UK	FC	89850	Singlemode 1550nm
920XC-15A	UPC	AU	FC	89851	Singlemode 1550nm
920XC-15A	UPC	NA	ST	89852	Singlemode 1550nm
920XC-15A	UPC	EU	ST	89853	Singlemode 1550nm
920XC-15A	UPC	JA	ST	89854	Singlemode 1550nm
920XC-15A	UPC	UK	ST	89855	Singlemode 1550nm
920XC-15A	UPC	AU	ST	89856	Singlemode 1550nm
920XC-15A	UPC	NA	SC	89857	Singlemode 1550nm
920XC-15A	UPC	EU	SC	89858	Singlemode 1550nm
920XC-15A	UPC	JA	SC	89859	Singlemode 1550nm
920XC-15A	UPC	UK	SC	89860	Singlemode 1550nm
920XC-15A	UPC	AU	SC	89861	Singlemode 1550nm
920XC-15A	APC	NA	FC	89862	Singlemode 1550nm
920XC-15A	APC	EU	FC	89863	Singlemode 1550nm
920XC-15A	APC	JA	FC	89864	Singlemode 1550nm
920XC-15A	APC	UK	FC	89865	Singlemode 1550nm
920XC-15A	APC	AU	FC	89866	Singlemode 1550nm
920XC-15A	APC	NA	SC	89867	Singlemode 1550nm
920XC-15A	APC	EU	SC	89868	Singlemode 1550nm
920XC-15A	APC	JA	SC	89869	Singlemode 1550nm
920XC-15A	APC	UK	SC	89870	Singlemode 1550nm
920XC-15A	APC	AU	SC	89871	Singlemode 1550nm

When ordering, combine Model - Polish - Power Supply - Connector Type (ie. 920xc-13a-upc-nafc)  
NA - North American EU - Europe JA - Japanese UK - United Kingdom AU - Australia

**R** = REPLACEMENT PART **A** = ACCESSORY

## 920XC Handheld Singlemode OTDR (cont.)

### SPECIFICATIONS

#### OPTICAL

	920XC-13A	920XC-15A	920XC-20C	
Fiber Type	9/125 SM	9/125 SM	9/125 SM	
Wavelength ( $\pm$ 20nm)	1310	1550	1310	1550
Dynamic Range (dB)	27	27	35	35
Event deadzone (m)	3.5	3.5	2.5	2.5
Attenuation Deadzone (m)	20	20	14	14
Emitter Type	Laser			
Pulsewidth (ns)	12ns, 25ns, 100ns, 275ns, 1us, 2.5us		5ns, 10ns, 30ns, 100ns, 300ns, 1us, 2.5us, 10us, 20us	
Selectable Ranges (km)	1.3, 2.5, 5, 10, 20, 40, 80, 120		0.3, 1.3, 2.5, 5, 10, 20, 40, 80, 120, 160, 240	
Average Time	15s/30s/1 min/2 min/3 min			
Distance measurement accuracy	$\pm(1m + 5 \times 10^5 \times \text{distance} + \text{sampling space})$			
Linearity	<0.03 dB/dB			
Connector Type	PC or APC (interchangeable FC, SC, ST)			

#### VISUAL FAULT LOCATOR (920XC-20C ONLY)

Wavelength	n/a	650 nm
Peak power output	n/a	3 mw
Connector interface	n/a	(interchangeable FC, SC, ST)

#### FIBER ANALYSIS SOFTWARE


Reflection detect accuracy	$\pm 4$ dB
Attenuation detect accuracy	$\pm 0.05$ dB/dB
Measurement data storage	300 test curves
Data transmission	RS-232/USB port

#### GENERAL


Power Supply	NiMH chargeable battery/AC adapter
Battery Life	Support over 5 hours operating on one charge or over 20 hours standby
Operating Temperature	-10° to 50° C
Storage Temperature	-20° to 60° C
Relative Humidity	0 to 95% (non-condensing)
Weight	1.9 lbs. (0.87 kg)
Dimensions	7.7" H x 3.9" W x 2.4" L (196mm x 100mm x 64mm)

## Optical Loss Test Sets


MODEL NO.	523B-13/15	105202K	6052B2K	60556MT	253B+557B
PACKAGE	Handheld	Palm-sized	Palm-sized	Palm-sized	Palm-sized
SOURCE TYPE	Laser	Laser	LED	LED	LED
CALIBRATION WAVELENGTHS (nm)	1310/1550	1310/1550	850/1300	850/1300	650
MEASUREMENT RANGE	+3 to -75dBm	+3 to -60dBm	+3 to -60dBm	+3 to -60dBm	+3 to -60dBm
MEASUREMENT UNITS	dB, dBm, W	dB, dBm	dB, dBm	dB, dBm	dB, dBm
Storage Capability	✓				
Single-mode	✓	✓			
Multimode (glass)			✓	✓	
Multimode (POF)					✓
Talk Function					




523B-13/15




105202K



6052B2K



60556MT



253B + 557B

## Advanced Single-Mode Optical Loss Test Set



- Incorporates a stable dual 1310nm/1550nm laser source and optical power meter in a convenient self-contained package to perform insertion loss and link loss testing.
- Large, backlit LCD makes it easy to view power levels and calibration wavelengths.
- Operation is simple due to the user-friendly keypad and intuitive controls.
- Remote operation permits the automation of tedious or repetitive measurements.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- Indium-gallium-arsenide (InGaAs) photodetector.
- 1310/1550nm dual laser source.
- +3dBm to -75dBm measurement range.
- PASS/FAIL testing with audible signal.
- Manual or timer-driven data logging for periods from one second to one hour.
- Data storage for 1,000 measurements.
- RS232 interface for instrument configuration and data transfer to a PC-compatible workstation or serial printer.
- Powered by a rechargeable nickel-metal hydride (NiMH) battery pack, four alkaline batteries or AC adapter.
- Built-in NiMH battery charger with external power supply.

CAT. NO.	UPC NO.	DESCRIPTION
523B-13/15	60550	Advanced Single-Mode Optical Loss Test Set

*Requires one SOC and one UCI connector adapter (See pages 306 and 308). Source output is directly compatible with PC connectors. For APC use hybrid cable approach (See page 310).*

## fiberTOOLS® Single-Mode Optical Loss Test Sets



- These conveniently packaged test sets are used to test, troubleshoot and maintain Telco, CATV, LAN and other single-mode network applications. The Basic Set can be used to measure output power and certify end-to-end attenuation on deployed fiber spans.
- Easy to use, all-in-one prepackaged kit.
- Dual wavelength 1310/1550nm source covers all requirements.
- Source has stable, calibrated output.
- Rugged, splashproof instruments.
- Water- and air-tight hard carrying case.
- Meets the link certification requirements of TIA-568B and ISO/IEC-11801.
- 0.01dB measurement resolution.
- Two AA batteries provide power for over 100 hours in the optical power meters, over 50 hours in the LED sources and over 48 hours in the visual fault finder.

**Basic Sets Include:**

- 555B Optical Power Meter plus adapter.
- 262A Dual Wavelength 1310/1550nm Laser Source plus adapters.
- Hard carrying case (900B).

**Deluxe Sets Include:**

- Basic Set contents.
- Visual fault finder T160.
- Connector cleaner.
- Cleaning wands.

CAT. NO.	UPC NO.	DESCRIPTION
<b>Basic Single-Mode Test Sets</b>		
10520E2	60611	Basic SM Test Set E2000-PC
105202K	60608	Basic SM Test Set, FC-PC
105203K	60609	Basic SM Test Set, ST-PC
105206K	60610	Basic SM Test Set, SC-PC
1052011	60607	Basic SM Test Set, DIN
<b>Deluxe Single-Mode Test Sets</b>		
11520E2	60618	Deluxe SM Test Set E2000-PC
115202K	60615	Deluxe SM Test Set, FC-PC
115203K	60616	Deluxe SM Test Set, ST-PC
115206K	60617	Deluxe SM Test Set, SC-PC
115201U	60614	Deluxe SM Test Set, DIN
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)



To accommodate other connector types, see our SOC/UCI adapters on pages 301 and 303 and reference cables on page 306.

Voice • Data • Video

USA Tel: 800.435.0786  
Fax: 800.451.2632

Canada Tel: 800.435.0786  
Fax: 800.524.2853

International Tel: +1.815.397.7070  
Fax: +1.815.397.9247

## fiberTOOLS® Multimode Optical Loss Test Sets



- These conveniently packaged test sets are used to test, troubleshoot and maintain LAN and other network applications.
- Easy to use, all-in-one prepackaged kit.
- Dual wavelength 850/1300nm LED source(s) covers all requirements.
- Rugged, splashproof instruments.
- Water- and air-tight hard carrying case.
- Meet the link certification requirements of TIA-568B and ISO/IEC-11801.
- 0.01dB measurement resolution.
- Two AA batteries provide power for over 100 hours in the optical power meters, over 24 hours in the LED sources and over 48 hours in the visual fault finder.

### Basic Sets Include:

- 555B Optical Power Meter plus adapter.
- 252B Dual Wavelength 850/1300nm LED Source plus 2x adapters.
- Hard carrying case (900B).

### Deluxe Sets Include:

- Basic Set contents.
- Visual fault finder T160L.
- Connector cleaner.
- Cleaning wands.

CAT. NO.	UPC NO.	DESCRIPTION	CAT. NO.	UPC NO.	DESCRIPTION
<b>MM 50/125</b>		<b>BASIC MULTIMODE TEST SETS</b>	<b>MM 50/125</b>		<b>DELUXE MULTIMODE TEST SETS</b>
5052BE2	60627	Basic MM Test Set, E2000-PC	5152BE2	60635	Deluxe MM Test Set E2000-PC
5052B2K	60624	Basic MM Test Set, FC-PC	5152B2K	60632	Deluxe MM Test Set, FC-PC
5052B3K	60625	Basic MM Test Set, ST-PC	5152B3K	60633	Deluxe MM Test Set, ST-PC
5052B6K	60626	Basic MM Test Set, SC-PC	5152B6K	60634	Deluxe MM Test Set, SC-PC
5052BIU	60623	Basic MM Test Set, DIN	5152BIU	60631	Deluxe MM Test Set DIN
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)	90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

## fiberTOOLS® MT-RJ Optical Loss Test Sets



- Our MT-RJ Test Sets provide all the equipment required to test, troubleshoot and certify multimode optical links.
- Easy to use, all-in-one prepackaged kit.
- Both 850 and 1300nm LED sources available.
- Rugged, splashproof instruments.
- Conveniently packaged in a water- and air-tight hard case.
- Meets the link certification requirements of TIA-568B and ISO/IEC-11801.
- 0.01dB measurement resolution.
- Two AA batteries provide power for over 100 hours in the optical power meters, over 24 hours in the LED sources and over 48 hours in the visual fault finder.

### Basic Single Wavelength Test Sets Include:

- 556MT Optical Power Meter plus MT-RJ adapter.
- 255MT (1300nm) or 257MT (850nm) LED Source.
- Hard carrying case (900B).

### Dual Wavelength Deluxe Test Sets Include:

- 556MT Optical Power Meter plus MT-RJ adapter.
- 255MT 1300nm MT-RJ LED Source.
- 257MT 850nm MT-RJ LED Source.
- MTRJ connector cleaner.
- Hard carrying case (901B).
- 263MT MT-RJ visual fault finder.
- Cleaning wands.

CAT. NO.	UPC NO.	DESCRIPTION
<b>Single Wavelength MT-RJ Test Sets</b>		
60556MT	60555	Basic MM Test Set, 1300nm
60576MT	60727	Basic MM Test Set, 850nm
<b>Dual Wavelength 850/1300nm MT-RJ Test Sets</b>		
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

## Optical Power Meters

MODEL NO.	522B	522B-HP	555B	556MT	557B	558B
PACKAGE	Handheld	Handheld	Palm-sized	Palm-sized	Palm-sized	Palm-sized
DETECTOR TYPE	1 mm InGaAs	Filtered 2 mm InGaAs	1 mm InGaAs	3 mm Ge	3 x 3.5 mm Silicon	Filtered 2 mm InGaAs
CALIBRATION WAVELENGTHS (nm)	850/980/1310/1480/1550/1625	850/980/1310/1480/1550/1625	850/1300/1310/1550	850/1300/1550	635/780/850	980/1310/1550
MEASUREMENT RANGE	+3 to -75dBm	+25 to -53dBm	+3 to -60dBm	+3 to -40dBm	+3 to -60dBm	+25 to -30dBm
MEASUREMENT UNITS	dB, dBm, mW	dB, dBm, mW	dB, dBm	dB, dBm	dB, dBm	dB, dBm
OPTICAL POWER METER INTERFACE TYPE	SOC Adapter	SOC Adapter	SOC Adapter	SOC Adapter	SOC Adapter	SOC Adapter
User-Selectable Auto Shutoff	✓	✓	✓	✓	✓	✓
Storage Capability	✓	✓				



522B



522B-HP



555B



556MT



557B



558B

## Advanced Optical Power Meters



522B



To accommodate other connector types, see our SOC/UCI adapters on pages 302 and 303 and reference cables on page 306.

- Designed for insertion loss and link loss measurements using an external light source.
- Large, backlit LCD makes it easy to view power levels and calibration wavelengths.
- Operation is simple due to the user-friendly keypad and intuitive controls.
- Remote operation permits the automation of tedious or repetitive measurements.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- 850nm, 980nm, 1310nm, 1480nm, 1550nm and 1625nm calibration wavelengths.
- InGaAs photodetector.
- +3dBm to -75dBm measurement range.
- PASS/FAIL testing with audible signal.
- Manual or timer-driven data logging for periods from one second to one hour.
- Data storage for 1,000 measurements.
- RS232 interface for instrument configuration and data transfer to a PC-compatible workstation or serial printer.
- Powered by a rechargeable nickel-metal hydride (NiMH) battery pack, four alkaline batteries or AC adapter.
- Built-in NiMH battery charger with external power supply.

CAT. NO.	UPC NO.	DESCRIPTION
522B	60548	Advanced Optical Power Meter, Medium Power to +3dBm
522B-HP	60549	Advanced Optical Power Meter, High Power to +27dBm

Requires one Snap-On Connector (SOC) interface (See pages 302 and 303). Compatible with both PC and APC connectors.

## InGaAs Optical Power Meter



- Suitable for power measurements on both laser and LED based single-mode and multimode fiber optic systems.
- Easy to use; three buttons control all essential functions.
- Multi-wavelength reference stores and recalls reference power levels for faster, more efficient measurement.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- 850nm, 1300nm, 1310nm and 1550nm calibration wavelengths.
- InGaAs detector.
- +3 to -60dBm measurement range.
- 0.01dB measurement resolution.
- Relative logarithmic dB and absolute logarithmic dBm units.
- User-selectable auto shutoff.
- Two AA batteries provide power for over 100 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
555B	60567	InGaAs Optical Power Meter
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

Requires one Snap-On Connector (SOC) adapter (See pages 302 and 303). Compatible with both PC and APC connectors.

## Ge MT-RJ Optical Power Meter



- Pair with an LED source to test insertion loss of multimode MT-RJ fiber optic cables and connectors or use independently to perform link loss testing of installed cable plants.
- Easy to use; three buttons control all essential functions.
- Multi-wavelength reference storage capability permits convenient insertion and link loss testing at different transmission windows.
- Wide area detector allows for testing of each channel individually, simultaneously or alternating between the two channels.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- 850nm, 1300nm and 1550nm NIST traceable calibration wavelengths.
- Special extra-large area germanium detector.
- +3 to -40dBm measurement range.
- -0.01dB measurement resolution.
- Relative logarithmic dB and absolute logarithmic dBm units.
- User-selectable auto shutoff.
- Two AA batteries provide power for over 100 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
556MT	60552	Ge MT-RJ Optical Power Meter
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

Requires one T13A2 for MT-RJ Snap-On Connector (SOC) adapter (See page 303). Compatible with both PC and APC connectors.

## Silicon Optical Power Meter



- Optimized for power measurements on fiber optic systems based on single-mode, multimode, plastic or large core glass optical fibers and using near-infrared or visible light sources.
- Easy to use; three buttons control all essential functions.
- Multi-wavelength reference stores and recalls reference power levels for faster, more efficient measurement.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- 635nm, 780nm and 850nm calibration wavelengths.
- 3 x 3.5 mm Silicon detector.
- +3 to -60dBm measurement range.
- 0.01dB measurement resolution.
- Relative logarithmic dB and absolute logarithmic dBm units.
- User-selectable auto shutoff.
- Two AA batteries provide power for over 100 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
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557B	60553	Silicon Optical Power Meter
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

Requires one Snap-On Connector (SOC) adapter (See pages 302 and 303). Compatible with both PC and APC connectors.



To accommodate other connector types, see our SOC/UCI adapters on pages 302 and 303 and reference cables on page 306.

## High Intensity InGaAs Optical Power Meter



- Suitable for power measurements on high power single-mode and DWDM fiber optic systems.
- Easy to use; three buttons control all essential functions.
- Multi-wavelength reference stores and recalls reference power levels for faster, more efficient measurement.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- 980nm, 1310nm and 1550nm calibration wavelengths.
- +25 to -30dBm measurement range at 1310/1550nm.
- 0.01dB measurement resolution.
- Relative logarithmic dB and absolute logarithmic dBm units.
- User-selectable auto shutoff.
- Two AA batteries provide power for over 100 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
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558B	60568	High Intensity InGaAs Optical Power Meter
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

Requires one Snap-On Connector (SOC) adapter (See pages 302 and 303). Compatible with both PC and APC connectors.

## Fault Locators and Light Detectors

MODEL	170XL	263LX	263MT	510 LS SENSOLITE®	T160L
TYPE	Visible Laser	Visible Laser	Visible Laser	Light Detector (Ge)	Visible Laser
WAVELENGTH (NM)	635nm (red)	635nm (red)	635nm (red)	630 to 1600nm	635nm (red)
DISTANCE	Up to 3 km (very bright)	Up to 3 km (very bright)	Up to 1 km (bright)		Up to 3 km (very bright)
LIFE / BATTERY TYPE	48 hours (2 AA)	40 hours (2 AA)	24 hours (2 AA)	1 year (2 AA)	48 hours (2 AA)
OPTICAL INTERFACE TYPE	2.5 MM Universal Interface	Fixed FC-PC Interface	Fixed MT-RJ Interface	Universal Interface	2.5 MM Universal Interface
Single-mode	✓	✓			✓
Multimode		✓	✓	✓	✓



170XL



263LX



263MT



510LS



T160L

## FC-PC and MT-RJ Visual Fault Finders



- Used to quickly locate bending loss and breaks in optical fibers, and to identify bad connectors.
- 635nm red laser makes fiber breaks and bending losses easily visible.
- Stable, calibrated output.
- Continuous wave output mode for steady fault illumination.
- Blinking output mode increases viewing contrast.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.
- Proven, reliable and compact design.
- Economically priced.
- Rugged and splashproof.
- 263LX model includes fixed FC-PC interface, for use with optional FoPro® Adapter Cable (See page 289) or user-supplied hybrid cable (See page 306).
- 263MT model is designed for MT-RJ duplex connectors to test both fibers simultaneously.
- LX model has a range up to 3 km. MT model has a range up to 1 km.
- More than 40 hours of continuous operation.

CAT. NO.	UPC NO.	DESCRIPTION
263LX	60538	Visual Fault Finder
263MT	60539	MT-RJ Visual Fault Finder
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

## SensoLITE® Visible/Invisible Light Detector



- Identifies live multimode and single-mode fibers.
- Helps prevent accidental eye exposure to hazardous laser radiation.
- Simple one-button test.
- Patented light baffle accepts all standard fiber optic connector types, bare fiber and even fiber loop.
- Includes both audible and visible indicators.
- Unique design permits testing in bright light conditions.
- Wide sensitivity from +25dBm to -55dBm.
- Detects visible and invisible light wavelengths from 630nm to 1600nm.
- Operates for approximately one year on two AA batteries.
- Automatic battery check.

CAT. NO.	UPC NO.	DESCRIPTION
510LS	60566	SensoLITE Visible/Invisible Light Detector

## Visual Fault Finder



- Pinpoints cable breaks and bad connections in both single-mode and multimode fiber.
- Quick connect interface adapts to all standard PC and APC polished 2.5 mm ferruled connectors without adapters.
- Both continuous and pulsed operation aid in fault detection even in high ambient lighted areas.
- Pocket-sized.
- Rugged, waterproof design.
- Ultra-bright 635nm visible laser detects fiber breaks up to 3 km away.
- Operates for over 48 hours on two AA batteries.
- Includes integral dust cap and nylon, belt-mounted carrying pouch.
- Optional snap-on adapters permit attachment to ST, SC and FC connectors.

CAT. NO.	UPC NO.	DESCRIPTION
T160L	60562	Visual Fault Finder
1630	60580	ST SOC Adapter
1662	60581	SC SOC Adapter
1620	60582	FC SOC Adapter

## Bare Fiber Adapter



- Allows temporary connection of 125 micron multimode or single-mode fiber to measuring equipment such as Sources, Optical Power Meters and Fault Locators with an FC-style connector. Connection to other common fiber optic connector styles can be accomplished with a hybrid test jumper.
- Short 5 mm minimum strip length provides easy insertion into the capillary and avoids fiber breakage.
- Reusable.
- Includes a durable 2.5 mm tungsten carbide ferrule and a ferrule cleaning tool.

CAT. NO.	UPC NO.	DESCRIPTION
55456	55456	Bare Fiber Adapter (125µm, FC-style connector)

## LED Sources

MODEL	252B	253B	255MT	257MT
SOURCE TYPE	LED	LED	LED	LED
WAVELENGTHS (NM)	850/1300	650	1300	850
OPTICAL INTERFACE TYPE	SOC Universal	SOC Universal	Fixed MT-RJ	Fixed MT-RJ
Continuous and Modulated Output Modes	✓	✓	✓	✓
User-selectable Auto Shutoff	✓	✓	✓	✓
Single-mode	✓		✓	
Multimode (glass)	✓		✓	✓
Multimode (plastic)		✓		



252B



253B



255MT



257MT

## Dual Wavelength LED Source



- Perform multimode insertion loss and link loss measurements on Local Area Networks (LAN), premises networks and Fiber Distributed Data Interface (FDDI) installations.
- Stable, calibrated output.
- Proven, reliable and compact design.
- Easy to use; three buttons control all essential functions.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- Single unit combines 850nm and 1300nm calibrated wavelengths.
- Nominal output for 62.5/125 is -13dBm for 850nm and -20dBm for 1300nm.
- Continuous and modulated output modes.
- User-selectable auto shutoff.
- TIA-568B compliant.
- Two AA batteries provide power for over 24 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
252B	60530	Dual 850/1300nm LED Source
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

Requires two Snap-On Connector (SOC) adapters (See pages 302 and 303).

## Single Wavelength 650nm LED Source



- Performs multimode insertion loss and link loss measurements when paired with an optical power meter for POF testing.
- Stable, calibrated output.
- Proven, reliable and compact design.
- Easy to use; two buttons control all essential functions.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- Nominal output into 200/230 is -15dBm.
- Continuous and modulated output modes.
- User-selectable auto shutoff.
- Two AA batteries provide power for over 24 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
253B	60531	650nm LED Source
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

Requires one Snap-On Connector (SOC) adapter (See pages 302 and 303).



To accommodate other connector types, see our SOC/UCI adapters on pages 302 and 303 and reference cables on page 306.

## MT-RJ Dual Channel LED Sources



255MT

- Test insertion loss of multimode MT-RJ fiber optic cables and connectors, or pair with an optical power meter for link loss testing of installed cable plants.
- Stable, calibrated output.
- Proven, reliable and compact design.
- Easy to use; two buttons control all essential functions.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- 255MT model has a 1300nm wavelength.
- 257MT model has an 850nm wavelength.
- Nominal output for 62.5/125 is -20dBm for both 850nm and 1300nm.
- Continuous and alternating output modes.
- Fixed MT-RJ interface.
- User-selectable auto shutoff.
- Two AA batteries provide power for over 24 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
255MT	60533	MT-RJ Dual Channel LED Source 1300nm
257MT	60536	MT-RJ Dual Channel LED Source 850nm
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

**B** = REPLACEMENT PART    **A** = ACCESSORY

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## Laser Sources

MODEL	262A	265A
SOURCE TYPE	Fabry-Perot Laser	Fabry-Perot Laser
WAVELENGTHS (NM)	1310/1550	1310
OPTICAL INTERFACE TYPE	UCI Universal	UCI Universal
Continuous and Modulated Output Modes	✓	✓
User-selectable Auto Shutoff	✓	✓
Single-mode	✓	✓



262A



265A

## 1310/1550 Dual Wavelength Laser Source



- Performs single-mode insertion loss and link loss measurements when paired with an optical power meter.
- Single output interface simplifies dual wavelength measurements.
- Stable, calibrated output.
- Proven, reliable and compact design.
- Easy to use; three buttons control all essential functions.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- Single unit toggles between 1310nm and 1550nm wavelengths.
- Fabry-Perot laser diodes.
- Calibrated output power is nominal -7.0dBm.
- Continuous and modulated output modes.
- User-selectable auto shutoff.
- Two AA batteries provide power for over 50 hours.
- Optional AC power converter/adaptor is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
262A	60564	Dual Laser Source
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

Requires one UCI adapter (See pages 301 and 303). For PC polished connectors only.  
For APC connectors, use hybrid reference cables (See page 306).



To accommodate other connector types, see our SOC/UCI adapters on pages 302 and 303 and reference cables on page 306.

## Single Wavelength Laser Sources



265A

- Performs single-mode insertion loss and link loss measurements when paired with an optical power meter.
- Stable, calibrated output.
- Proven, reliable and compact design.
- Easy to use; two buttons control all essential functions.
- Rubber boot protects against dropping.
- Rugged and splashproof.
- 265A has a 1310nm wavelength and -7dBm output for single-mode testing.
- Continuous and modulated output modes.
- User-selectable auto shutoff.
- The 265A model operates for over 36 hours on two AA batteries.
- AC power converter/adapter is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
265A	60565	1310nm Laser Source, SM
90ACK	60686	AC/Main Power Converter 120V (one required per handheld unit)

*Requires one UCI adapter (See pages 302 and 303). For PC polished connectors only. For APC connectors, use hybrid reference cables (See page 306).*



To accommodate other connector types, see our SOC/UCI adapters on pages 302 and 303 and reference cables on page 306.

## fiberTOOLS® Carrying Cases



Carry Case only



900B  
Instruments and accessories not included

Designed to hold Tempo handheld instruments and a full range of test accessories.

### 900B and 901B Hard Carrying Cases

- Top tray holds up to 3 (900B) or 4 (901B) handheld instruments and a T160L Visual Fault Finder.
- Bottom compartment of both models stores additional instruments and test accessories.
- Compact, waterproof and lockable.
- Molded from black structural foam resin.

CAT. NO.	UPC NO.	DESCRIPTION
900B	60684	Hard Carrying Case, Holds 3 Handhelds
901B	60579	Hard Carrying Case, Holds 4 Handhelds

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## Fiber Optic Instrument Adapters – SOC and UCI

- Our SOC and UCI adapters provide direct connectivity for Tempo fiberTOOLS® to a wide range of industry-standard fiber optic connectors.
- Adapter design ensures maximum accuracy and repeatability when performing critical measurements on fiber optic systems.
- Easy to clean and use.
- Single-mode and multimode compatible.
- SOC adapters are compatible with both PC and Angled APC physical contact interfaces.
- UCI adapters feature durable phosphor bronze alignment sleeve.
- SOC (Snap-On Connector) adapter is used on all power meters and 250 “B” series LED Sources.
- UCI (Universal Connector Interface) adapter is used on all 250/260 “A” Series Sources and 330 Series Variable Optical Attenuators.

## Fiber Optic Instrument Adapters – SOC and UCI

CONNECTOR TYPE DESCRIPTION	SOC ADAPTER		UCI ADAPTER	
	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
1.25 mm Quick-Connect Universal Adapter (LC, MU, etc.)		T1026 60588	Use hybrid cable only *	
2.5 mm SOC Quick-Connect Adapter (E2000, FC, SC, ST, etc.)		T1025 60587		AU-250 60703
Blank Adapter (for custom applications)		T1001 60585	N/A	
D4		T1089 60597	Use hybrid cable only *	
DIN 47256		T1010 60586		AD-108 60697
E-2000		T10E2 60599		AE2-10 60698
EC-Radiall		T10E0 60598	Use hybrid cable only *	
FC		T1020 60576		APC-108 60572
HMS-0		T1050 60592		AMS-00 60700
HMS-10/A (SMA-2.5 mm)		T1086 60595		AMT-10 60701
HMS-10/HP		T1040 60590		AHP-10 60699
LC		T10LC 60600	Use hybrid cable * or FoPro® <sup>x</sup>	

\* FoPro ferrule options include 2.5 mm, 1.57 mm (MIL-style 16AWG optical contacts) and 1.25 mm.

\* When using a Hybrid Adapter Cable, the instrument UCI adapter and one end of the Hybrid Adapter Cable should be a commonly available connector type. (i.e. FC, SC or ST)

## Fiber Optic Instrument Adapters – SOC and UCI

CONNECTOR TYPE	SOC ADAPTER		UPI-PC ADAPTER		
	DESCRIPTION	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
MIL-T-29504/4 & /5 Termini		T1038	60589	Use hybrid cable * or FoPro® <sup>x</sup>	
Mini-BNC		T1047	60591	Use hybrid cable only *	
MT-RJ †		T13A2	60605 †	Use hybrid cable only *	
MT-RJ Ferrule Only †		T13AF	60606 †	Use hybrid cable only *	
MU		T10MU	60601	Use hybrid cable * or FoPro® <sup>x</sup>	
SC		1062	60575		ASC-108 60574
SMA 905/906		T1087	60596		ASM-90 60702
ST		T1030	60577		ATS-108 60573
STRATOS 430/ HOLTEK 38000		T1057	60593	Use hybrid cable only *	
TOSLINK – Simplex		T10TB	60602	Use hybrid cable only *	
TOSLINK – Duplex (Set of 2)		T10TD	60603	Use hybrid cable only *	
Versatile Link – V/Z PIN		T10ZP	60604	Use hybrid cable only *	
VFO – Radiall		T1081	60594	Use hybrid cable only *	

\* FoPro ferrule options include 2.5 mm, 1.57 mm (MIL-style 16AWG optical contacts) and 1.25 mm.

\* When using a Hybrid Adapter Cable, the instrument UCI adapter and one end of the Hybrid Adapter Cable should be a commonly available connector type. (i.e. FC, SC or ST)

† SOC adapter for use only with the 556MT Optical Power Meter on page 298.



**90SOC (60687)**  
SOC adapter tool for easy installation and removal of SOC adapters from instrument interfaces.

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## fiberSAFE™ USA/Canada Telecom Adapter Kit — SOC and UCI



- Conveniently combines the most popular SOC, UCI and bulkhead mating adapters used in the North American telecommunications market. Enables direct connectivity for Tempo fiberTOOLS® to industry-standard fiber optic connectors.

### USA/Canada Telecom Adapter Kit includes:

- FC-PC/APC (wide key) bulkhead/mating adapter.
- ST-PC/APC bulkhead/mating adapter.
- SC-PC/APC bulkhead/mating adapter.
- E2000-PC/APC bulkhead/mating adapter.
- FC/SC hybrid bulkhead adapter.
- FC/ST hybrid bulkhead adapter.
- FC/E2000 hybrid bulkhead adapter.
- Universal 2.5 mm Quick Connect SOC adapter.

CAT. NO.	UPC NO.	DESCRIPTION
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956US	60695	USA/Canada Adapter Kit
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## fiberSAFE™ Worldwide Telecom Adapter Kit — SOC and UCI



- Conveniently combines the most popular SOC, UCI and bulkhead mating adapters used outside the USA and Canada. Enables direct connectivity for Tempo fiberTOOLS to industry-standard fiber optic connectors.

### Worldwide Telecom Adapter Kit includes:

- DIN 47256-PC/APC bulkhead/mating adapter.
- FC-PC/APC (wide key) bulkhead/mating adapter.
- SC-PC/APC bulkhead/mating adapter.
- E2000-PC/APC bulkhead/mating adapter.
- FC/DIN hybrid bulkhead adapter.
- FC/SC hybrid bulkhead adapter.
- FC/E2000 hybrid bulkhead adapter.
- Universal 2.5 mm Quick Connect SOC adapter.

CAT. NO.	UPC NO.	DESCRIPTION
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956WW	60696	Worldwide Adapter Kit
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## fiberSAFE™ LAN Adapter Kit — SOC and UCI



- Conveniently combines the most popular SOC, UCI and bulkhead mating adapters used for Local Area Networks (LAN). Enables direct connectivity for Tempo fiberTOOLS to industry-standard fiber optic connectors.

### LAN Adapter Kit includes:

- FC-PC/APC (wide key) bulkhead/mating adapter.
- ST-PC/APC bulkhead/mating adapter.
- SC-PC/APC bulkhead/mating adapter.
- SMA 905/906 bulkhead/mating adapter.
- FC/ST hybrid bulkhead adapter.
- ST/SC hybrid bulkhead adapter.
- Universal 2.5 mm Quick Connect SOC Adapter.

CAT. NO.	UPC NO.	DESCRIPTION
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956LN	60694	LAN Adapter Kit
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## Quick Reference Charts for Fiber Testing Applications

### FIBER OPTICS MEASUREMENTS MATRIX

APPLICATION	SINGLE-MODE	PAGE NO.	MULTIMODE (GLASS FIBER)	PAGE NO.
Visual Fault Location	T160L	297	T160L	297
	263LX	296	263LX	296
	170XL	285	170XL	285
Visual Continuity	T160L	297	T160L	297
	263LX	296	263LX	296
	170XL	285	170XL	285
Measure Optical Power (to +3dBm) (to +27dBm)	522B / 555B	293, 294	522B / 555B / 557B	293, 294
	522B-HP / 558B	293, 295		293
	560XL	284	560XL	284
Measure Insertion Loss / Attenuation (Dual Wavelength)	262A + 555B	300, 295	252B + 555B	298
	523B-13/15	290		
	560XL +580XL	284-285	560XL +570XL	284
Data Storage Capability	522B / 522B-HP 523B-13/15	293 290	522B / 522B-HP	293

### SPECIAL TEST EQUIPMENT FOR MT-RJ INTERCONNECTIONS

APPLICATION	SINGLE-MODE	PAGE NO.	MULTIMODE (GLASS FIBER)	PAGE NO.
Visual Fault Location	263MT	297	263MT	296
Visual Continuity	263MT	296	263MT	296
Measure Optical Power	556MT	294	556MT	294
Measure Insertion Loss	262A + 556MT	294, 300	255MT / 257MT + 556MT	299
			60576MT / 60556MT	292

### SPECIAL TEST EQUIPMENT FOR PLASTIC OPTICAL FIBER (POF)

APPLICATION	MULTIMODE (1 MM POF)	PAGE NO.
Visual Fault Location	253B	299
Visual Continuity	253B	299
Measure Optical Power	557B	295
Measure Insertion Loss	253B + 557B	295, 299

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## TIA-568B and FOTP-171A Certified Reference Cables



572J

- Ensures accurate measurements for repeatable and reproducible testing to the latest industry standards.

### Meets and/or exceeds the latest industry standards including:

- TIA/EIA-455-171 (FOTP-171A), issued June, 2001.
- TIA-568B, TIA-562-7 (OFSTP-7) and TIA-526-14 (OFSTP-14) for optical link testing.
- TIA-455-171 (FOTP-171, Attenuation) and TIA-455-8 (FOTP-8, Return Loss) for cable assembly testing.
- Corresponding IEC measurement standards.

### SPECIFICATIONS

<b>Ferrule OD</b>	2.4990 ±0.0005 mm
<b>Fiber to Ferrule</b>	≤ 0.25µm (SM) and ≤ 3µm (MM)
<b>Eccentricity</b>	
<b>Insertion Loss</b>	≤ 0.15dB (SM, 1310/1550nm) and ≤ 0.25dB (MM, 850/1300nm)
<b>Return Loss</b>	≥ 55dB (SM, 1310/1550nm) and ≥ 40dB (MM, 850/1300nm)
<b>Beam Exit Angle</b>	≤ 0.25° (SM) and ≤ 0.5° (MM)
<b>Standard Length</b>	3 m

### STANDARD REFERENCE CABLES (TYPE A TO TYPE B)

DESCRIPTION	CAT NO.	UPC NO.	DESCRIPTION	CAT NO.	UPC NO.	CAT NO.	UPC NO.	
Single-mode Reference Cables:			Multimode Reference Cables:				50/125	
FC-PC to FC-PC	562K-101	60658	FC-PC to FC-PC	562K-105	60659	562K-106	60660	
ST-PC to ST-PC	563K-101	60661	ST-PC to ST-PC	563K-105	60662	563K-106	60663	
SC-PC to SC-PC	566K-101	60664	SC-PC to SC-PC	566K-105	60665	566K-106	60666	
E2000-PC to E2000-PC	56E2-101	60667	E2000-PC to E2000-PC	56E2-105	60668	56E2-106	60669	
LC-PC to LC-PC	56LC-LSM	60670	LC-PC to LC-PC	56LC-LM5	60671	56LC-LM6	60672	
MU-PC to MU-PC	56MU-LFM	60676	MU-PC to MU-PC	56MU-LM5	60674	56MU-LM6	60675	

### HYBRID REFERENCE CABLES (FC-PC TO TYPE A)

DESCRIPTION	CAT NO.	UPC NO.	DESCRIPTION	CAT NO.	UPC NO.	CAT NO.	UPC NO.	
Single-mode Reference Cables:			Multimode Reference Cables:				50/125	
FC-PC to FC-APC	572J-101	60680						
FC-PC to SC-APC	576J-101	60681						
FC-PC to E2000-APC	57E8-101	60682						
FC-PC to LC-PC	57LC-LSM	60733	FC-PC to LC-PC	57LC-LM5	60734	57LC-LM6	60735	
FC-PC to MU-PC	57MU-LFM	60736	FC-PC to MU-PC	57MU-LM5	60737	57MU-LM6	60738	



262A

To measure attenuation of SM links with APC polished connectors, use our 262A Dual Wavelength Laser Source (see page 300) with the APC-108 FC UCI Adapter (see page 302) and a Hybrid Reference Cable. Use same hybrid reference cable approach for LC-PC and MO-PC connectors.