# Voice/Data/Video

Greenlee and Tempo have come together to offer you a complete line of industry-leading tools for datacom, telecom and fiber optic applications. Choose from a large selection of premium installation tools, tone generators and telephone test sets, network certification instruments and fiber optic test equipment. From start to finish, you know you'll get the job done right with Greenlee and Tempo.



AT8L LAN Toner 2

page **218** 

page **225** 

PM-400K PairMapper® Wiremap Kit



PE830 Tele-Mate® Pro Test Set

page **237** 

page **261**  262A – 1310/1550 Dual Wavelength Laser Source



#### **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-resi	stant hlack	oxide finish			

#### Cable Cutter, 8 AWG



- Designed to cut solid, stranded wire up to 8 AWG (10 mm²) and multiconductor 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 230 for details on our Professional Installation Kit.

#### **Cable Cutter**



- Easily cuts heavier copper and aluminum cables up to 2/0 (70 mm²).
- 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

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International Tel: +1.815.397.7070 Fax: +1.815.397.9247



#### **Cable Splicer's Knife and Electrician's Scissors**



- 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 Scissors
PT-C01	08702	Two-Pocket Leather Pouch

#### **Wire Strippers/Cutter**



- 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.

1916 31891 20-10 AWG (0.8 to 2.6 mm dia.) Solid Wlre	
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**





- 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 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 212)



#### 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

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



Typically used for F-type connectors (See page 213). Frame accepts only 2 level cartridges.





· Designed to provide precise, repeatable strips consistently.

• Prepares RG58, RG59, RG62, RG6 and many other types of coax cable.

KWIK STRIPPER Coax Stripper - 2 Level

KWIK STRIPPER Coax Stripper - 3 Level

Replacement Cartridge - 2 Level

- Strips braid and dielectric to 1/4" (6.4 mm).
- Blades are easily replaced in the field.
- Blade adjustment for cutting depth.

UPC NO.

45576

45577

45040

CAT. NO. 45576

45577

45040

Frame accepts both 2 and 3 level cartridges.

· Replaceable and interchangeable blade cassettes.

DESCRIPTION

45039	45039	Replacement Cartridge - 3 Level
	[2]	23 - 23 - (5.9) (5.9)
		335

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#### **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
	The state of the s	45570
		45579 Typically used for Modular Plug Connectors (See page 212)

#### **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 ¼" (6.4 mm).
- Included with the tool, the RG11/RG7 cartridge strips cable jacket and dielectric to ¼" (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	Replacement Cartridge RG6/RG59
45581	45581	Replacement Cartridge RG11/RG7

# **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; yellow 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 ¼" (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	Replacement Cartridge UTP
45580	45580	Replacement Cartridge RG6/RG59
45581	45581	Replacement Cartridge RG11/RG7

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#### **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	Replacement 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
1901	45823	Pocket Cable Stripper
07915	07915	Replacement Cutting Blade

#### **Coax Connector Insertion Tool**



- 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 injury on 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
45516	45516	Coax Connector Insertion Tool with F-style Connector Bit
45517	45517	Replacement Bit F-style Connector
45518	45518	Replacement Bit BNC-style Connector

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#### **Punchdown Tool**



- 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**





- 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 227 for details.

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#### **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 212).



#### 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 229 for details on our Voice and Category 5 Data



#### 45575

Typically used for Modular Plug Connectors (See page 212). Our Telephone Ratchet Crimper was designed with a compact head to fit into tight spaces and ergonomic handles for operator comfort.

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#### **Gator® Plus Terminal Crimping Tool**





- Totally new hydraulic pump design results in an extremely compact, batterypowered crimping tool for crimping terminals and DSV 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 195, 210 and 211).
- Two batteries, battery charger, and carrying case included.
- Choice of 120 volt, 230 volt, or 12 volt battery charger.

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	CAT. NO.	UPC NO.	DESCRIPTION
, , , ,	EK21011	02024	1.5-Ton Battery-Powered Crimping Tool w/120 volt charger
EK21022 02026 1.5-Ton Battery-Powered Crimping Tool w/230 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 Replacement 9.6 V Ni-Cd Battery	RAM1	01975	Replacement 9.6 V Ni-Cd Battery
KK35SGL 02019 Replacement Carrying Case	KK35SGL	02019	Replacement Carrying Case

#### SPECIFICATIONS

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



See our comprehensive line of connectors on pages 212 to 214.



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

				CRIMP PROFILE						CAT.	UPC	CAT	UPC
		DESCRIPTION			8	& DIME	NSION		ITER	NO.	NO. OL	NO.	NO.
	CABLE TYPE	CONNECT	ION		BRAID	CRIMP			TACT	WITH		DIE (	ONLY
<b>(1)</b>	RG58/RG59/ RG59TFE/RG6	BNC/TNC Cambridge/ AIM, 2-piece		0.320	0.210	0.185	Ç	Ç	Ç			45562	45562
4)	Belden 1694A	BNC/TNC		0.315	<b>\tilde{\rightarrow}</b>	Ş	Ç	0.068	<b>Č</b>			45563	45563
	RG22B/U Twinax & others	Twinax		0.429	Ç	<b>\rightarrow</b>	Ŏ	0.075	0.075			45574	45574
4	RG58/RG174/8218	BNC/TNC 50 and 75 OHM		\triangle \triangle	0.213	0.178	<b>Ç</b>	0.068	<b>♦</b>	45544	45544	46826	46826
4	RG6/RG59 & 8281	BNC/TNC & F, 50 and 75 OHM. Also 1695, 1505, 9259 and 9231		0.324	0.255	<b>\frac{1}{2}</b>	Ŏ	<b>\rightarrow</b>	0.042	45545	45545	46830	46830
<b>(3)</b>	RG58/RG59/62AU	BNC/TNC		0.256	0.213	<b>\Q</b>	<b>Ö</b>	0.068	Ç	46800	46800	46824	46824
<b>(1)</b>	RG59, RG6	CATV F		0.360	0.324	0.255	Ŏ	Ş	Ç	46801	46801	46808	46808
4	RG58, RG59 Plenum & Non-Plenum Thinwire	BNC/TNC 50/75 OHM			0.213	0.190	Ç	0.068	<b>♦</b>			45556	45556
4	RG6, RG174, 8281, AT&T 728	BNC/TNC/F		0.324	0.178	<b>\Q</b>	<b>\Q</b>	<b>\rightarrow</b>	0.068	45582	45582	45557	45557
43	RG58/141/142/58 Teflon/ 58 Thinney/RG59	BNC/TNC/F		<b>\_</b>	0.255	0.213	<b></b>	0.100 0.068	<b>Č</b>			45558	45558
43	RG58/59/62 Teflon	BNC/TNC from Cambridge/AIM		0.325	0.215	<b>\sqrt</b>	<b></b>	0.065	<b>Ģ</b>			45559	45559

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

		DESCRIPTION					UPC NO.
	CONNECTION		FEATURES	TOOL W	ITH DIE	DIE ONLY	
43	22-10 AWG (0.3 TO 6 MM <sup>2</sup> )		Open barrel, non-insulated terminals, ring tongue, spade and slide-on style			45508	45508

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

		DESCR	IPTION	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
	CONNECTION		FEATURES	TOOL W	ITH DIE	DIE ONLY	
7	RJ11 2-, 4- and 6-position		Western Electric and Stewart style connectors	46120	46120	46116	46116
	RJ45 8-position		AMP modular plug connectors	45540	45540	46117	46117
43	RJ11 4- and 6-position		AMP modular plug connectors	45541	45541	46118	46118
	RJ45 10-position		Modular plug connectors			45571	45571
7)	Hand set plug 4-position					45566	45566

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

		DESCR	IPTION	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
	CONNECTION		FEATURES	TOOL WITH DIE		DIE (	ONLY
43	22-10 AWG		Color coded nests for easy identification Standard insulated terminals, ring tongue, spade lug, slide on and butt splices	45500	45500	45509	45509
<b>(1)</b>	22-10 AWG		Color coded nests for easy identification For fully insulated slide-on syle connectors AMP Ultrafast™ style	45501	45501	45570	45570
4	26-16 AWG	50 (CD D=0 ==0	For mini insulated terminals with smaller wire barrels. Ring tongue, spade, slide on and butt splices			45565	45565
<b>(1)</b>	22-8 AWG		For non-insulated terminals and splices	45505	45505	45507	45507

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#### **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						RECOMMEN	IDED TOOL		
					STRIPPER		CRIMPER		COMBO	
CONNECTOR TYPE	CABLE TYPE	QUANTITY	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 46119	45504 w/die 46119		
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	Round Cable Solid Wire	25/Pack 50/Pack 100/Pack	45747 45760 45780	45747 45760 45780	45579	45579			45553 45575	45553 45575

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# **F-Style Coaxial Connectors System**

• Nickel plated for corrosion resistance

#### F-STYLE CONNECTORS

DESCRIPTION					RECOMMENDED TOOL				
	DESCRIPTION					STRI	PPER	CRIN	/IPER
CONNE	CTOR TYPE	CABLE TYPE	QUANTITY	CAT. NO.	UPC NO.	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		
71	'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
Tel	'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 TY	PE	QUANTITY	CAT. NO.	UPC NO.
10	'F' Female Adapter	5/Pack	45325	45325
	'F' Terminator	5/Pack	45326	45326

For the best tools to use with our F-style connectors, see pages 203 to 206 for stripping and pages 208 and 209 for crimping.

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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			
	DE	SONIF HON				STRI	STRIPPER		/IPER
CONNECTOR TY	PE	CABLE TYPE	QUANTITY	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.	CAT. NO.	UPC NO.
<del></del>	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
<b>=</b>	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 203 to 206 for stripping and pages 208 and 209 for crimping.

#### **BNC TERMINATORS**

	DESCRIPTION	·		
ADAPTER TYPE		QUANTITY	CAT. NO.	UPC NO.
-00	BNC Terminator 93 OHM	1/Pack	45726	45726

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#### **VS1 Series Splitters**



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)

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.

#### **Accessories**

Mounting screws included

ELECTRICAL I SPECIFICATIONS	Frequency - Range (MHz) 5-47	VS1-2, 2-Way 3.6	VS1-3, 3-Way 4.0-7.2	VS1-4, 4-Way 7.5
Insertion Loss	47-470	4.0	4.1-7.8	8.0
In-Out	470-750	4.3	4.3/8.2	8.5
(max dB)	750-1000	4.5	4.5/8.5	8.5
Return	5-47	15.0	15.0	15.0
Loss In	47-470	16.0	17.0	17.0
	470-750	15.0	15.0	15.0
(min dB)	750-1000	15.0	15.0	15.0
Return	5-47	15.0	15.0	15.0
Loss Out	47-470	16.0	17.0	17.0
	470-750	15.0	15.0	15.0
(min dB)	750-1000	15.0	15.0	15.0
Isolation	5-47	20.0	20.0	20.0
Out-Out	47-470	21.0	21.0	21.0
	470-750	20.0	20.0	20.0
(min dB)	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)	109" (48mn
HEIGHT:		0.6" (15mm)	0.6" (15mm)	0.6" (15mm
HOUSING:		Nick	el Plated Zinc D	ie Cast
RF CONNECTOR	F-Type Female 750HM			НМ

# **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

	CAT. NO.	UPC NO.	DESCRIPTION
- 1	77CS	08686	Leather Belt Holster for Classic 77 Series Tone Generators
	77CS		

#### **Classic 77 Series Tone Generators**

77HP	77HP / 6A	77HP / 6AC
✓	✓	✓
$\checkmark$	✓	✓
✓	✓	✓
$\checkmark$	✓	✓
✓	✓	✓
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✓	✓	✓
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	✓ ✓ ✓ ✓	

# **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	Replacement Piercing Clips

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



#### **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

#### **AdapToner Modular Breakout Tone Generator**



- The AT 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

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247

### **LAN Toner with HUB Blink**



- 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	

#### **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

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



#### **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

#### **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

#### SPECIFICATIONS

# Electrical Output Power +9dBm Output Signal Frequency 877/982 Hz alternating Output Impedence 3,500 ohms minimum, 25kHz to 1.1 MHz Mechanical Length 140 mm (5.5 inches) Depth 25 mm (1.0 inches) Width 57 mm (2.25 inches) Weight 0.17 kg (0.38 pounds)

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247

### **200 Series Inductive Amplifiers**

<b>V V</b>	✓ ✓ ✓	√ √
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✓		✓
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		✓

# **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.

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

**USA** Tel: 800.435.0786 Canada Tel: 800.435.0786 Fax: 800.451.2632 Fax: 800.524.2853

International Tel: +1.815.397.7070 Fax: +1.815.397.9247



#### **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.
- With three types of noise filtration, the Filter Probe virtually eliminates power-related noise from the tone-and-probe operation.
- 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.

#### **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 and 200FP probes.
- RPT-1 comes with two pencil-style tips and two spade-style tips.

CAT. NO.	UPC NO.	DESCRIPTION
RPT-1	08711	Replacement Plastic Tips for 200B, 200EP, 200FP
RPT-2	60561	Replacement 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	Replacement Metal Tips for 200B and 200EP Probes

#### **Classic Tone and Probe Kit**



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

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.

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.

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.

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

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



#### **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 polyester carrying case.

#### **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.
- 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

# **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 polyester pouch.

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

**Canada** Tel: 800.435.0786 Fax: 800.524.2853

International Tel: +1.815.397.7070 Fax: +1.815.397.9247

# **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 polyester.
- Fits belts up to 5" wide.

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

#### **Tone and Probe Carrying Case**



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

CAT. NO.	UPC NO.	DESCRIPTION
700C	08683	Tone and Probe Carrying Case

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



#### PairMapper® Wiremap Kit



PM-400K

- Use to identify various wiring faults found in 10 BASE-T and other fourpair, 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
46060	46060	Sure Signal Line Verifier and Patch Cord Tester
46070	46070	Sure Signal Remote
45276	45276	Carrying Case
46065	46065	Sure Signal Accessory Kit

# Wiremap Tester



- 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-tounderstand 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
468	08661	Wiremap Tester
468C	60382	Carrying Case for the Wiremap Tester

#### **Voice Tagger**



The Voice Tagger allows for simultaneous tracing or identification of up to 9 wires.

The Voice Tagger provides a numbered voice signal for eight lines, plus a standard warble tone trace signal on alligator clip leads. When connected to the Voice Tagger multiple wires can be identified or traced using any standard wire tracing tone probe. The signals are compatible with voice twisted pair, category 5 or 6 data cable, coaxial cable and non-energized electrical wiring.

- · Voice-identified wire tagging.
- · Simultaneous tracing of nine individual circuits.
- Works with any standard tone probe.
- Single 9 VDC battery operation.
- Labor saving during cable installation and maintenance.

DESCRIPTION

- Compatible with a wide range of wiring and cable.
- Rugged reliable construction.

UPC NO.

CAT. NO.

OAI. NO.	01 0 110.	DESCRIPTION
1185-5001	60518	Voice Tagger
SPECIFICATION	ONS	
Electrical		
Range	9 c	able miles
Warble Tone Signal	460	0/920 Hz alternating
Power Sourc	<b>e</b> On	e 9 VDC battery (NEDA1604 or 6LR61)
Mechanical		
Length	140	0 mm (5.5 inches)
Height	32	mm (1.25 inches)
Width	70	mm (2.75 inches)

#### **Coaxial Cable Tester**



- 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	
45055	45055	Coaxial Cable Tester	

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



# 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 contei	nts may be pu	rchased 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.

UPC NO. DESCRIPTION

CAT. NO.

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



- 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
Vit conto	nto mou ho ni	urahaaad aanarataluu
KIL COILLE	ints may be pu	ırchased 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, 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 conte	nts may be p	urchased 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
45781	45781	BNC-style Coax Connectors for RG58 Thinnet Plenum Cable
		(Qty. 20)
45760	45760	Category 5 Connectors RJ45, 8 Position (Qty. 50)
45478	45478	Carrying Case

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



### **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
45469	45469	Voice and Category 5 Data Termination Kit
Kit conte	ents may be	e 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	
45470	45470	Category 5 Data Termination and Test Kit	
KIT COU	tents may be pu	rchased 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	

- Includes all the tools, connectors and testers for installing and maintaining
  most types of communications cabling including voice, data and 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 conten	ts may be purchas	ed 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 Thinnet 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 polyester 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	

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

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#### **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 conte	nts may be <sub>l</sub>	ourchased separately:
45482	45482	Cable Cutter
46023	46023	Punchdown Tool with 110 Blade
46022	46022	66 Style Punchdown Blade
PT-T02	08708	Electrician's Scissors

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	Insulated Screwdrivers, 6-piece Set, 1000V Rating
45487	45487	Carrying Case

#### Tracker II



CAT. NO.	UPC NO.	DESCRIPTION
501	08662	Tracker II

- 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' test leads (2.4 m) 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.

#### **SPECIFICATIONS**

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

#### **Buried Line Locator**



CAT. NO.	UPC NO.	DESCRIPTION	
BLL-200	07796	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'.
- Transmitter can be connected to live lines up to 600V.
- Lifetime limited warranty.
- Molded carrying case included.

#### SPECIFICATIONS

	<u>Transmitter</u>	<u>Receiver</u>		
Operating Volta	age 0-600VAC,	Depth Ran	ge Measures:	0-15 ft.
	0-300 VDC		Traces:	0-20 ft.
Current	13mA (open line)		±(10% readir	ng + 0.2 ft.)
150	OmA (live or shorted line)	Depth Res	olution - 0.1 ft.	increments
Frequency	33.3kHz	Passive Trace Frequency - 12Hz-24kHz		
Operating Temperature 0°F to 120°F		Operating Temperature - 0°F to 120°F		
	(-17°C to 50°C)		(-17	7°C to 50°C)
Size	7.5" x 4" x 2.1"	Size	4.1" x 8.5" x 38" (1	04.1 mm x
(190.5 r	nm x 101.6 mm x 53 mm)		215.9 mm x	965.2 mm)
Power	6 VDC (4 AA batteries)	Power	6 VDC (4 A	A batteries)
Weight	15 oz. (425 g)	Weight	1 lb. 12	oz. (794 g)
(v	vith batteries and clamp)			

#### **Pulser Fault 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 is included).
- · Molded carrying case included.
- 1-year limited warranty.

CAT. NO. UPC NO.	DESCRIPTION
PE2003 08666	Pulser
SPECIFICATIONS	
Power Requirements	Transmitter: (1) 12V rechargeable battery Receiver: (1) 9V battery
Battery Life	Transmitter: 23 hours per charge; Receiver: 200 hours
Transmitter Power	2400VDC peak
Voltage Protection	240VAC/400VDC
Construction	Transmitter – aluminum housing in polyethylene case Receiver – powder coated aluminum
Dimensions	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 x 8 mm) on A-Frame
Weight	12.5 lbs. complete

#### 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.
- · 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.

CAT. NO.	UPC NO.	DESCRIPTION
508S	08678	Wire Finder/Mini Locator
SPECIFICAT	TIONS	

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

#### **Marker-Mate®**



- Designed to locate buried electronic markers, including Omni Marker<sup>™</sup>, and Uni Marker<sup>™</sup>
- 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

UPC NO.

- Large-character display is easy to read
- Bar graph, numeric & audible signal strength indicators

DESCRIPTION

- 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.

EML100	60798	Marker-Mate Electronic Marker Locator				
0140-0022	60778	361 Headphone set				
SPECIFICATIO	INS					
Electrical:	Twelve AA batteries Battery Life: 20 hours typical					
Environmen	Environment:					
Operating	j Tempera	ture: -4°F to 122°F (-20°C to 50°C)				
Storage T Weather	emperatu Resistant	re: -40°F to 158°F (-40°C to 70°C)				
Physical:						
Length:		30.7 in. (780 mm)				
Width		7.8 in. (198 mm)				

#### Omni Marker™



- · Electronically marks and relocates buried facilities.
- Unique design produces a uniform, spherical RF field in every direction.

12.8 in. (325 mm)

4.5 lbs. with batteries (2 kg)

- 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.

Height:

Weight:

APPLICATION	COLOR	FREQUENCY	CAT NO.	UPC NO.
Power	Red	169.8kHz	160	60765
Water	Blue	145.7kHz	161	60766
Sanitary	Green	121.6kHz	162	60767
Telephone	Orange	101.4kHz	163	60768
Gas	Yellow	83.0kHz	164	60769
Cable TV	Orange/Black	77.0kHz	165	60770
Non-Potable Water	Purple	66.35 kHz	168	11050

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### **Uni Marker**<sup>™</sup>



- 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	170	60771
Water	Blue	145.7kHz	171	60772
Sanitary	Green	121.6kHz	172	60773
Telephone	Orange	101.4kHz	173	60774
Gas	Yellow	83.0kHz	174	60775
Cable TV	Orange/Black	77.0kHz	175	60776
Non-Potable/Gen1	Purple	66.35kHz	178	11059

# CABLE & SERVICE TESTING

### **PE 900 Series Telephone Test Sets**



- 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 cordset 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 Cordset
PE902	60493	Replacement Cordset

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



- · 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 cordset with telco-style clips.

CAT. NO.	UPC NO.	DESCRIPTION
PE810	60298	Tele-Mate Communication Test Set

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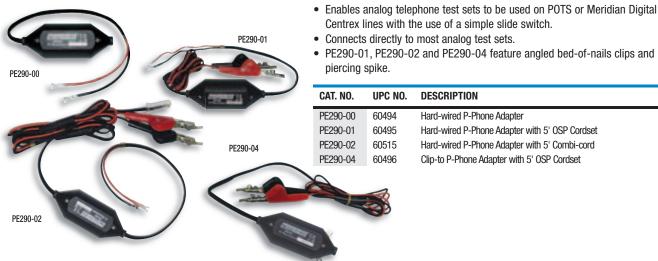
### **Tele-Mate® Pro Telephone Test Set**



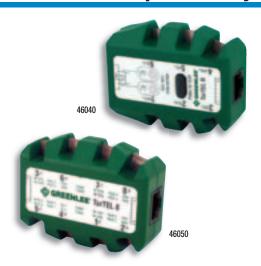
- The Tele-Mate Pro Telephone Test Set will help you deal with the increasing complexity of telecom installation and maintenance.
- Complete telephone set with ringer
- Phone-to-phone intercom
- Modular or alligator clip connection
- LCD Display in English, Spanish or French
- Caller ID with name display
- 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
PE830	60299	Tele-Mate Pro Telephone Test Set

### **P-Phone Adapters**



## **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
- 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

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#### 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.

#### **SPECIFICATIONS**

Dimensions	10.75" x 4.25" x 2.5"	DC Voltage	0 to 100 volts DC
Weight	2 lbs.	AC Voltage	0 to 200 Vrms
Resistance	Rx1: Reads 0 to 2000 $\Omega$ ;	Stress Test	0 to 82 dBrnC
	Rx1K: Reads 0 to 2 $M\Omega$	Operating Temp.	-20°C to +60°C
Leakage	Rx10K: Reads 0 to 20 $\text{M}\Omega$	Power	Four AA batteries

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

### **Sidekick T&N**



CAT. NO.	UPC NO.	DESCRIPTION
	00500	011111 = =011
1137-5002	60526	Sidekick T&N

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

#### **SPECIFICATIONS**

Dimensions	10.75" x 4.25" x 2.5"	Stress Test	0 to 82 dBrnC
Weight	2 lbs.	Loop Current	0 to 100 mA
Resistance	Rx1: Reads 0 to 2000 $\Omega$	Circuit Noise	0 to 75 dBrnC
	Rx1K: Reads 0 to 2 $M\Omega$	Circuit Loss	-15 to +1 dB
Leakage	Rx10K: Reads 0 to 20 $\mbox{M}\Omega$	Power Influence	50 to 100 dBrnC
DC Voltage	0 to 100 volts DC	Operating Temp.	-20°C to +60°C
AC Voltage	0 to 200 Vrms	Power	Four AA batteries
		•	

#### **Sidekick T&ND**



CAT. NO.	UPC NO.	DESCRIPTION
1144-5000	60853	Sidekick T&No Test Set

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

#### **SPECIFICATIONS**

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

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### 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.

**DESCRIPTION** 

- Single set-up for testing Tip-Ring, Tip-Ground, and Ring-Ground with ground connection.
- Field replaceable leads.

CAT. NO.

Softcase with adjustable hook.

UPC NO.

· Low Battery indicator light.

1143-5000	60527 Sidekick V.O.C.
SPECIFICATION	NS
Dimensions	10.75 x 4.25 x 2.5 inches
Weight	2 lbs.
Resistance	Rx1: Reads 0 to 2000 $\Omega$ Rx1K: Reads 0 to 2 Megohms
Leakage	Rx10K: Reads 0 to 20 Megohms
DC Voltage	0 to 100 Volts DC
AC Voltage	0 to 200 Vrms
Stress Test	0 to 82 dBmC
Operating Ten	<b>1p.</b> -20°C to +60°C
Power	Four AA batteries

### **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
- 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.

**DESCRIPTION** 

1-year warranty.

CAT. NO.

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

UPC NO.

177	08657	Precision Tone Generator
SPECIFICA	TIONS	
Power Req	uirements	One 6V lantern battery
Battery Life		40 hours nominal
Transmitter		577.5Hz pulsed at 1Hz, crystal controlled
Frequency		
Output Voltage		0.1 to 80Vp-p
Output Signal Level		0 to +30dBm
Construction		High impact ABS plastic in woven polyester case
Dimensions		7.25" x 5.5" x 4.5" in case
Weight		3 lbs. with battery

#### **Load Coil Detector**



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-vear warrantv.

CDE	CILI	CATI	2MNI

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

#### **TelScout® TS100**

08656

88



- Twisted Pair and Coax Testing in a Single Unit (optional)
- · One-Step Setup
- Automatic and Manual Instrument Control Mode
- 15 km Fault Location Capability
- Rugged Survives 2 m Drop
- Splash and Drip Proof
- · Powered from AC Mains or 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 Storage for 20 Waveforms and Notes
- Serial Printer Output for Stored or Displayed Waveforms
- Accurate (±3 ft. at 10,000 ft.)
- On-line Tutorials

**Physical** 

Large Backlit Display

CAT.	NO.	UPC NO.	DESCRIPTION
TS100	)-01	60520	TelScout TS100-01 Metallic TDR

Battery Operation -

Operating Time: 8 hrs. continuous.

#### **SPECIFICATIONS**

#### **Environmental**

Temperature -

Operating: -15° C to +60° C. Non-operating: -20° C to +65° C.

Humidity – 95% RH, non-condensing. Shock (test specification) – Survives drop of 2 m to

concrete in standard soft case.

EMI Emissions – FCC part 15, subpart J, class A; VFG243 and EN55022.

#### Power

Mains Operation -

Voltage Ranges: 110 V, 220 V, 240 V with appropriate AC to DC adapter.

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

Battery Saver: Selectable for 5 to 30 minutes or disabled.

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#### **TelScout® TS90**



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

#### SPECIFICATIONS

#### **Environmental**

Temperature — Operating: 0° C to +45° C. Non-operating: -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**

mm	in.	
141	5.6	
211	8.3	
43	1.8	
ka	lb.	
1	2.2	
	141 211	141 5.6 211 8.3 43 1.8 kg lb.

### CableScout™ TV90



- High performance easiest 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.)
- Includes rechargeable battery pack
- Includes twisted pair adapter and test probe

CAT. NO.	UPC NO.	DESCRIPTION
TV90	_	TV90 CableScout TDR

#### **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:  $-0^{\circ}$  C to  $+45^{\circ}$  C Non-Operating:  $-20^{\circ}$  C to  $+60^{\circ}$  C

Durability: Survives Drop test of 2 meters 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

#### 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	_	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 feet
- 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:  $-10^{\circ}$  C to  $+40^{\circ}$  C Non-Operating:  $-20^{\circ}$  C to  $+60^{\circ}$  C

Durability: Survives Drop test of 2 m to concrete in soft case

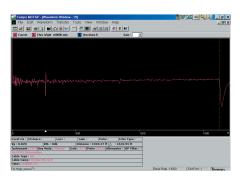
Power: 110 V, 220 V, 240 V with appropriate power adapter

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 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's. 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

## **T-Bug® Digital Signal Identifier**



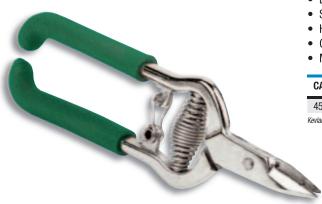
- Used to detect digital signals on twisted pair cables, identify and isolate digital pairs for special handling and help technicians avoid accidentally putting pairs out of service.
- Operation is non-invasive and does not involve metallic contact so there's no risk of service interruption.
- Simple 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



# 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 register	red 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

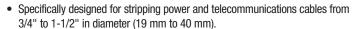
## **Pocket Cable Stripper**



- 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	Replacement Cutting Blade

### **Pocket Cable Stripper**



- · 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	Replacement 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

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



### **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" Crimper Frame with 45637 die set

DESCRIPTION		CAT. NO.	UPC NO.
CONNECTION	FEATURES	T00L	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		UPC NO.
CONNECTION	I 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



45468 Fiber Optic Installation 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 228 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".
- 70 durometer.

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

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



### **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<sup>™</sup> 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	Replacement Reel Set, 2/Package
945/1	60570	Replacement 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



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

CAT. NO	D. UPC NO.	DESCRIPTION
45655	45655	Fiber Optic Hand Tools Kit
Kit conte	ents may be purcl	hased separately:
45586	45586	Kevlar® Shears
1955	06857	Pro-Plus Wire Stripper, 10-18 AWG
45589	45589	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"
45644	45644	Zipper Case

# **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 conte	Kit contents may be purchased separately:				
45586	45586	Fiber Optic Kevlar® Shears			
1955	06857	Stripper for Cable Jackets			
45589	45589	Fiber Optic Buffer Stripper			

# **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

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

50 Sheets Polishing Paper, 1 micron	10 Syringes
50 Sheets Polishing Paper, 5 micron	10 Needle Tips
10 ml (0.34 oz.) Opticure Adhesive	100 Lint-free Wipes
26 ml (0.9 oz.) Opticure Primer	10 Alcohol Wipes

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



# **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 cont	ents may be purc	chased separately:
45586	45586	Kevlar® Shears
1955	06857	Stripper for Cable Jackets
45589	45589	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"
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	

## **Optical Loss Test Sets**

MODEL NO.	523B-13/15	105202K	6052B2K	60556MT	253B+557B
PACKAGE	Handheld	Handheld	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 (P0F)					✓
Talk Function	056 I				
	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 display 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 and crushing.
- · 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 PCcompatible 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 263 and 264). Source output is directly compatible with PC connectors. For APC use hybrid cable approach (See page 267).

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



## 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-toend 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				
Basic Sing	Basic Single-mode Test Sets					
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				
Deluxe Single-mode Test Sets						
Deluxe Sing	gle-mode Test S	Sets				
Deluxe Sing 11520E2	gle-mode Test \$ 60618	Deluxe SM Test Set E2000-PC				
11520E2	60618	Deluxe SM Test Set E2000-PC				
11520E2 115202K	60618 60615	Deluxe SM Test Set E2000-PC Deluxe SM Test Set, FC-PC				
11520E2 115202K 115203K	60618 60615 60616	Deluxe SM Test Set E2000-PC Deluxe SM Test Set, FC-PC Deluxe SM Test Set, ST-PC				
11520E2 115202K 115203K 115206K	60618 60615 60616 60617	Deluxe SM Test Set E2000-PC Deluxe SM Test Set, FC-PC Deluxe SM Test Set, ST-PC Deluxe SM Test Set, SC-PC				





To accommodate other connector types, see our SOC/UCI adapters on pages 263 and 264 and reference cables on page 267.



### 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
MM 50/125		BASIC MULTIMODE TEST SETS	MM 5	0/125	DELUXE MULTIMODE TEST SETS
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



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

- 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.

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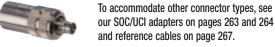


## **Optical Power Meters**

PACKAGE	Handheld			556MT	557B	558B
DETECTOR TVDE	Handileid	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 InGaA
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	+27 to -53dBm	+3 to -60dBm	+3 to -40dBm	+3 to -60dBm	+27 to -30dBm
MEASUREMENT UNITS	dB, dBm, mW	dB, dBm, mW	dB, dBm	dB, dBm	dB, dBm	dB, dBm
OPTICAL POWER METER INTERFACE TYPE	SOC Universal	SOC Universal	SOC Universal	SOC Universal	SOC Universal	SOC Universal
User-selectable Auto Shutoff	✓	✓	✓	✓	✓	✓
Storage Capability	000 005 le	DYS Le	W 3334			
	522R	522R-HP		556MT	557B	558B

### **Advanced Optical Power Meters**





- Designed for insertion loss and link loss measurements using an external light source.
- Large, backlit LCD display 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 and crushing.
- 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 PCcompatible 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

 $Requires \ one \ Snap-On \ Connector \ (SOC) \ interface \ (See \ pages \ 263 \ and \ 264). \ Compatible \ with \ both \ PC \ and \ APC \ connectors.$ 





- Suitable for power measurements on both laser and LED based singlemode 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 and crushing.
- 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/adapter is available for prolonged or benchtop use.

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

Requires one Snap-On Connector (SOC) adapter (See pages 263 and 264). 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 and crushing.
- · 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/adapter 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 120 V (one required per handheld unit)

Requires one T13A2 for MT-RJ Snap-On Connector (SOC) adapter (See page 264). Compatible with both PC and APC connectors.

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### **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 and crushing.
- 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/adapter is available for prolonged or benchtop use.

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

Requires one Snap-On Connector (SOC) adapter (See pages 263 and 264). Compatible with both PC and APC connectors.

# **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 and crushing.
- · 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/adapter is available for prolonged or benchtop use.

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

Requires one Snap-On Connector (SOC) adapter (See pages 263 and 264). Compatible with both PC and APC connectors.

# **Fault Locators and Light Detectors**

MODEL	263LX	263MT	55446 MICROOTDR™	510 LS SENSOLITE®	T160L
TYPE	Visible Laser	Visible Laser	OTDR	Light Detector (Ge)	Visible Laser
WAVELENGTH (NM)	635nm (red)	635nm (red)	1310nm	630 to 1600nm	635nm (red)
DISTANCE	Up to 3 km (very bright)	Up to 1 km (bright)	up to 20 km		Up to 3 km (very bright)
LIFE-/ BATTERY TYPE	40 hours (2 AA)	24 hours (2 AA)	13,000 Tests (4 AA)	1 year (2 AA)	48 hours (2 AA)
OPTICAL INTERFACE TYPE	Fixed FC-PC Interface	Fixed MT-RJ Interface	Fixed ST-PC Interface	Universal Interface	2.5 MM Universal Interface
Single-mode	✓		✓		✓
Multimode	✓	✓	✓	✓	✓
					15

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

263LX



 Used to quickly locate bending loss and breaks in optical fibers, and to identify bad connectors.

510LS

T160L

- 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/adapter 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 267) or user-supplied hybrid cable (See page 267).
- 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 120 V (one required per handheld unit)

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



# MicroOTDR™ Optical Fault Locator



- Provides fast, easy and accurate identification of loss points/faults and length for multimode and single-mode fiber optic cable.
- Easy-to-use; one button controls all essential functions.
- Fast; takes less than six seconds to identify the distance to six optical events plus the cable end.
- Delivers over 13,000 tests from four AA batteries.
- Fixed ST-PC interface, use hybrid cables for other connector types.
- Uses 1310nm laser OTDR technology.
- Measures cable length to 20 km.
- · Identifies distance to seven loss points/faults.
- Distance accuracy of ±2 m.
- ST-style output connection.
- Two year warranty.

CAT. NO.	UPC NO.	DESCRIPTION
55446	47663	MicroOTDR Optical Fault Locator

### 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

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247

### **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
934-125	55456	Bare Fiber Adapter (125µm, FC-style connector)

**Canada** Tel: 800.435.0786 Fax: 800.524.2853

252B

International Tel: +1.815.397.7070 Fax: +1.815.397.9247



257MT

#### **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	✓	<b>~</b>	<b>√</b>	<b>~</b>
User-selectable Auto Shutoff	✓	✓	✓	✓
Single-mode	✓		✓	
Multimode (glass)	✓		✓	✓
Multimode (plastic)		<b>√</b>		
			H	M

253B

# **Dual Wavelength LED Source**



 Perform multimode insertion loss and link loss measurements on local area networks, premises networks and Fiber Distributed Data Interface (FDDI) installations.

255MT

- · Stable, calibrated output.
- Proven, reliable and compact design.
- Easy-to-use; three buttons control all essential functions.
- · Rubber boot protects against dropping and crushing.
- 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/adapter 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 263 and 264).

# **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 and crushing.
- 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/adapter 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 263 and 264).



To accommodate other connector types, see our SOC/UCI adapters on pages 263 and 264 and reference cables on page 267.



### **MT-RJ Dual Channel LED Sources**



- 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 and crushing.
- · 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/adapter is available for prolonged or benchtop use.

CAT. NO.	UPC NO.	DESCRIPTION
255MT	60533	MR-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)

Canada Tel: 800.435.0786 Fax: 800.524.2853

International Tel: +1.815.397.7070 Fax: +1.815.397.9247



266A

### **Laser Sources**

MODEL	262A	265A	266A
SOURCE TYPE	Fabry-Perot Laser	Fabry-Perot Laser	Fabry-Perot Laser
WAVELENGTHS (NM)	1310/1550	1310	1550
OPTICAL INTERFACE TYPE	UCI Universal	UCI Universal	UCI Universal
Continuous and Modulated Output Modes	<b>✓</b>	<b>√</b>	<b>√</b>
User-selectable Auto Shutoff	✓	✓	✓
Single-mode	✓	✓	✓

### 1310/1550 Dual Wavelength Laser Source

262A



- To accommodate other connector types, see our SOC/UCI adapters on pages 263 and 264 and reference cables on page 267.

- · 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 and crushing.

265A

- 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/adapter 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 263 and 264). For PC polished connectors only. For APC connectors, use hybrid reference cables (See page 267).

## **Single Wavelength Laser Sources**

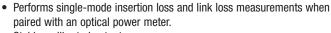


265A





To accommodate other connector types, see our SOC/UCI adapters on pages 263 and 264 and reference cables on page 267.



- Stable, calibrated output.
- · Proven, reliable and compact design.
- · Easy-to-use; two buttons control all essential functions.
- Rubber boot protects against dropping and crushing.
- Rugged and splashproof.
- 265A has a 1310nm wavelength and -7dBm output for single-mode testing.
- 266A has a 1550nm 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.
- The 266A model operates for over 80 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
266A	60544	1550nm Laser Source, SM

Requires one UCI adapter (See pages 263 and 264). For PC polished connectors only. For APC connectors, use hybrid reference cables (See page 267).

# fiberTOOLS™ Carrying Cases



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 3x Handhelds
901B	60579	Hard Carrying Case, Holds 4x Handhelds

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



### Fiber Optic Instrument Adapters – SOC and UCI

- Our SOC and UCl 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	SOC	ADAPTER		UCI ADAPTER	
DESCRIPTION		CAT. NO.	UPC NO.	CAT. N	IO. UPC N
1.25 mm Quick-Connect Universal Adapter (LC, MU, etc.)		T1026	60588	Use hybrid cable or	nly *
2.5 mm SOC Quick-Connect Adapter (E2000, FC, SC, ST, etc.)	-	T1025	60587	AU-25	50 60703
Blank Adapter (for custom applications)	-	T1001	60585		
D4	To	T1089	60597	Use hybrid cable or	nly *
DIN 47256		T1010	60586	AD-10	08 60697
E-2000		T10E2	60599	AE2-1	10 60698
EC-Radiall	100	T10E0	60598	Use hybrid cable or	nly *
FC		T1020	60576	APC-1	08 60572
HMS-0		T1050	60592	AMS-	00 60700
HMS-10/A (SMA-2.5 mm)		T1086	60595	АМТ-	10 60701
HMS-10/HP	The last	T1040	60590	AHP-	10 60699
LC	-	T10LC	60600	Use hybrid cable * or F	oPro®.x

# Fiber Optic Instrument Adapters – SOC and UCI

CONNECTOR TYPE	SOC AD	APTER		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®×
Mini-BNC		T1047	60591	Use hybrid cable only *
MT-RJ ♦		T13A2	60605♦	Use hybrid cable only *
MT-RJ Ferrule Only ♦	0)	T13AF	60606 ♦	Use hybrid cable only *
MU		T10MU	60601	Use hybrid cable * or FoPro®×
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	100	T1081	60594	Use hybrid cable only *

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



90SOC (60687)

SOC adapter tool for easy installation and removal of SOC adapters from instrument interfaces.

<sup>\*</sup> 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)

<sup>♦</sup> SOC adapter for use only with the 556MT Optical Power Meter on page 254.



### 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
956US	60695	USA/Canada Adapter Kit

# 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
956WW	60696	Worldwide Adapter Kit

# fiberSAFE™ LAN Adapter Kit — SOC and UCI



 Conveniently combines the most popular SOC, UCI and bulkhead mating adapters used for Local Area Networks. 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
956LN	60694	LAN Adapter Kit

# **Quick Reference Charts for Fiber Testing Applications**

FIBER OPTICS MEASUREMEN	ITS MATRIX					
APPLICATION		SINGLE-MODE	PAGE NO.	MULTIMODE (GLASS FIBER)	PAGE NO.	
Visual Fault Location		T160L 263LX	258, 256	T160L 263LX	258, 256	
Visual Continuity		T160L 263LX	258, 256	T160L 263LX	258, 256	
Measure Optical Power (to +3dBm) (to +27dBm)		522B / 555B 522B-HP / 558B	253, 254 255	522B / 555B / 557B	253, 254 255	
Measure Insertion Loss / Attenuation (Dual Wavelength)		262A + 555B 523B-13/15	250, 254 261	252B + 555B	254, 259	
Data Storage Capability		522B / 522B-HP 523B-13/15	250 253	522B / 522B-HP	253	

SPECIAL TEST EQUIPMENT FOR MT-RJ INTERCONNECTIONS								
APPLICATION	SINGLE-MODE	PAGE NO.	MULTIMODE (GLASS FIBER)	PAGE NO.				
Visual Fault Location	263MT	256	263MT	256				
Visual Continuity	263MT	256	263MT	256				
Measure Optical Power	556MT	254	556MT	254				
Measure Insertion Loss	262A + 556MT	254, 261	255MT / 257MT + 556MT 60576MT / 60556MT	252, 254 260				

SPECIAL TEST EQUIPMENT FOR PLASTIC OPTICAL FIBER (POF)						
APPLICATION	MULTIMODE (1 MM POF)	PAGE NO.				
Visual Fault Location	253B	260				
Visual Continuity	253B	260				
Measure Optical Power	557B	255				
Measure Insertion Loss	253B + 557B	255, 260				

**Canada** Tel: 800.435.0786 Fax: 800.524.2853 International Tel: +1.815.397.7070 Fax: +1.815.397.9247



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



 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**

Ferrule OD	2.4990 ±0.0005 mm.
Fiber to Ferrule Eccentricity	" 0.25µm (SM) and " 3µm (MM).
Insertion Loss	" 0.15dB (SM, 1310/1550nm) and " 0.25dB (MM, 850/1300nm).
Return Loss	$\geq$ 55dB (SM, 1310/1550nm) and $\geq$ 40dB (MM, 850/1300nm).
Beam Exit Angle	" 0.25° (SM) and " 0.5° (MM).
Standard Length	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		62.5/125		
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-LFM	60670	LC-PC to LC-PC	56LC-LM5	60671	56LC-LM6	60672
MU-PC to MU-PC	56MU-LFM	60673	MU-PC to MU-PC	56MU-LM5	60674	56MU-LM6	60675

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

III DI II DI	- A)						
DESCRIPTION	CAT NO.	UPC NO.	DESCRIPTION	CAT NO.	UPC NO.	CAT NO.	UPC NO.
Single-mode Reference Cables:		Multimode Reference Cables:	50/125		62.5/125		
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-LFM	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 261) with the APC-108 FC UCI Adapter (see page 263) and a Hybrid Reference Cable. Use same hybrid reference cable approach for LC-PC and MO-PC connectors.

Voice / Data / Video



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NOTES