FLUKE networks®

Fluke Networks' CSP Solutions Catalog

Products for the installation, testing, monitoring and analysis of telecommunication networks

Welcome to the Fluke Networks CSP product catalog, the definitive resource for information on Fluke Networks industry-leading solutions for installing, testing, monitoring and analyzing enterprise and telecommunications networks.

You know that the right tool makes the job go faster and easier. Each of our tools, from simple cable strippers and knives to cable analyzers to enterprise-level analysis tools, meet and exceed industry standards, giving you confidence that you and your team of professionals will achieve your goals the first time and every time. Please review our catalog for opportunities to enhance your solution set and get ready to realize the benefits of the latest advances from Fluke Networks.

Fluke Networks is your trusted partner, striving to give you an unparalleled view into your ongoing challenges of building and maintaining mission-critical network and telecommunication services. We offer easy-to-use tools that save you precious time and money while improving the productivity of your organization.

▶▶ Fluke Networks is your trusted partner

Fluke Networks partners with you to help your organization solve today's problems and anticipate tomorrow's challenges. Our award winning solutions – portable network testers and analyzers, enterprise performance management hardware and software, datacom installation tools or telecommunications instruments and systems – give you a unique look into your enterprise or telecommunication network. It's the instant visibility you need to solve everyday network problems, and it offers the foresight required to improve network performance in the future.

▶▶ Fluke Networks Gold Support Programs

Fluke Networks' Gold membership programs ensure a high return on your investment by keeping your Fluke Networks products up-to-date and in top condition. The programs are paid annual service contracts that offer 24/7 technical support, knowledge-base access, members-only discounts, access to online training and up-to-the-minute information on your product – everything you need to reduce your total cost of ownership.

▶▶ Table of Contents

Tools and Test Kits

Fluke Networks offers a wide range of network installation tools – each one designed to streamline the network installation job

Fluke Networks offers the most reliable set of network installation tools on the market – each one designed to streamline the network installation job. We have all the essential tools you need for installation and termination of high-performance voice, data and video networks. The JackRapid™ Termination Tool saves time and increases accuracy by seating and terminating all wires at once with a simple squeeze of the handle. The Pro-Tool Kits combine all professional tools you need to cut, strip, clean and connect network phone and data lines to blocks and jacks. Our world-renowned punchdown tools, with a variety of interchangeable blades, deliver high-quality, accurate terminations on the first punch. Industry standard Electrical Contractor Telecom Kits offer all the telecommunications tools and test equipment technicians need in one durable case.

Pro3000™ Analog Toner and Probe CE

The Pro3000 Toner and Probe kit is the innovative analog toner and probe from Fluke Networks. It's your best choice for toning and tracing bare wire on non-active networks. Easily identify individual pairs with its patented SmartTone™ technology (the five different tones for exact pair identification). Angled-bed-of-nails clips allow easy access to individual wires, and the RJ-11 connector is ideal for use on telephone jacks. The large powerful speaker on the probe allows you to hear through drywall, wood or other enclosures to find wires quickly and easily. You can send tone up to 16 kilometres on most cables. Attach the nylon pouch to your belt, and you will be equipped for any wire identification job.

- Select solid or alternating tone options, indicated with solid or flashing LEDs
- Exclusive SmartTone technology generates five separate analog tones when the pair is shorted at the far end
- Works on de-energized AC wire, telephone/twisted pair wire, all voice and data category rated cable, all coax cable, speaker wire and security wire

Model	Description
26000900	Pro3000 Analog Tone and Probe Kit
26100900	Pro3000 Probe
26200900	Pro3000 Toner
26100103	Pro3000 Analog Probe replacement tip

Probe Features:
- Loud large speaker amplifies tone through walls, enclosure, wood or plaste
- Easy-to-use adjustable volume control dial
- "Quick-twist" tip for easy replacement
- Free spare tip inside Pro3000 Tone and Probe Kit

Tone Generator Features:
- SmartTone technology
- Send tone signal up to 10 miles on most cables
- Line cord features angled bed-of-nails clips and ruggedized RJ-11 plug for direct access to phone and data jacks without adapters
- External switch allows selection of solid or alternating tone options, indi¬cated with solid or flashing LEDs
- Continuity testing
- Line polarity confirmation

▶▶ TS®90 Cable Fault Finder C€

The TS90 is our easy-to-use, three-tools-in-one tester – a fault locator, a cable inventory manager and a toner with SmartTone™ technology (up to 760 metres). Easily find the distance to opens or shorts on electrical wire, telephone wire, security wire and coax. Displays distance reading rather than waveform.

- Works on any two or more conductor cable up to 760 metres
- Instantly measures distance to open or any fault from one end of any cable pair
- Patented SmartTone™ tone generator positively identifies pair
- Measures cable distance on spool
- Measures constantly while "on"

Model	Description
26500090	TS90 cable fault finder with BNC to alligator clips
26501100	TS90 line cord, BNC to alligator clip
26501160	TS90 pouch with belt clip
26501200	TS90 line cord, BNC to F (male)
26501300	TS90 line cord, BNC to F (female)
26501600	TS90 line cord, banana
26501700	TS90 line cord, BNC to banana to ABN

▶▶ TS®100 Cable Fault Finder C€

Similar to the TS90, the TS100 is three tools in one tester – a fault locator, a cable inventory manager and a toner with SmartTone™ technology (up to 900 metres). Easily find the distance to opens or shorts on electrical wire, telephone wire, security wire and coax. Displays distance reading rather than waveform.

- Works on any two or more conductor cable up to 900 metres
- Instantly measures distance to open or any fault from one end of any cable pair
- Patented SmartTone™ tone generator positively identifies pair
- Measures cable distance on spool
- Measures constantly while "on"

Model	Description
26500000	TS100 cable fault finder with BNC to alligator clips
26500500	TS100 with BNC to banana to ABN
26500610	TS100 metric cable fault finder with BNC to alligator clips
26501100	TS100 line cord, BNC to alligator clip
26501160	TS100 pouch with belt clip
26501200	TS100 line cord, BNC to F (male)
26501300	TS100 line cord, BNC to F (female)
26501600	TS100 line cord, banana
26501700	TS100 line cord, BNC to banana to ABN

▶▶ JackRapid™ Termination Tool

The JackRapid termination tool is the industry's most innovative and time-saving installation tool. JackRapid allows you to terminate jacks eight times faster than traditional impact tools – with accuracy that's unmatched. The patented jack termination tool seats and terminates all wires simultaneously with one squeeze of an ergonomic handle. The built-in blade cuts off the excess wire after it is seated in the connector, eliminating the need for a secondary trim step. Simple, one-handed operation reduces hand fatigue. With JackRapid, you'll never punch into the palm of your hand or through drywall again.
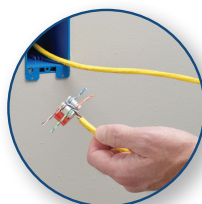
- Cuts installation time – easy-to-use handle, seats and cuts all wires at once, saving you up to two minutes installation time per jack
- High-quality, consistent terminations – no more compromised connections and wasted jacks
- Simple, one-handed operation with an ergonomically designed handle reduces hand fatigue

Get accurate terminations and clean, consistent cuts every time with the JackRapid Termination Tool.

1. Strip cable jacket with a standard cable stripper or the built-in cable stripper.
2. Determine wiring scheme. Dress all four pairs (eight wires).
3. Insert jack in JackRapid front first with IDC slots facing blades of JackRapid.

4. Ensure jack is completely and securely inserted in jack holder bed with IDC slots facing the blades.
5. Pull trigger completely and remove excess wire prior to releasing trigger.
6. Wires will be seated and cut for a solid termination.

Model	Description
JR-LEV-1	JackRapid termination tool (for Leviton 41106, 41108, 5G108)
JR-LEV-1-H	JackRapid replacement blade head (for Leviton 41106, 41108, 5G108)
JR-SYS-UNI-1	JackRapid termination tool (for Systimax MPS100E, C5,M1BH and Uniprise UNJ600/500/300)
JR-SYS-UNI-1-H	JackRapid replacement blade head (for Systimax MPS100E, C5, M1BH and Uniprise UNJ600/500/300)
JR-LEV-2	JackRapid termination tool (for Leviton 61110, 5G110, 6110G)
JR-LEV-2-H	JackRapid replacement blade head (for Leviton 61110, 5G110, 6110G)
JR-SYS-2	JackRapid termination tool (for Systimax MGS400, MGS500, MFP420, MFP520)
JR-SYS-2-H	JackRapid replacement blade head (for Systimax MGS400,MGS500, MFP420, MFP520)
JR-ORT-2	JackRapid termination tool (for Ortronics TJ5E00, TJ600, TJ610)
JR-ORT-2-H	JackRapid replacement blade head (for Ortronics TJ5E00,TJ600, TJ610)
JR-ADC-2	JackRapid termination tool (for ADC KM8, Copper Ten®)
JR-ADC-2-H	JackRapid replacement blade head (for ADC KM8, Copper Ten®)
JR-ERGOHANDLE	JackRapid ergonomic handle
JR-PAN-2	JackRapid termination tool (for Panduit NK688M)
JR-PAN-2-H	JackRapid replacement blade head (for Panduit NK688M)

▶▶ D914™S Impact Tool

SoftTouch D914S Impact Tool offers a new ergonomic design with a soft rubber handle for better grip and rounded edges to absorb more of the impact recoil. Includes built-in probe pic/spudger and torque, allowing you to choose from high-and low-impact settings.

- Industry standard, internationally accepted with lifetime warranty
- Hook and spudger tools are built into the handle
- Automatic spring handle – choose low impact for 24/26 gauge wire or high impact for 22-gauge wire
- Accepts Phillips-head or flat screwdriver blade

Model	Description
10061000	D914S Impact Tool
10061100	D914S Impact Tool with EverSharp 66 blade
10061110	D914S Impact Tool with EverSharp 110 and EverSharp 66 blade
10061501	D914S Impact Tool with EverSharp 110, EverSharp 66 blade and free screwdriver blade
10061503	D914S Impact Tool with BIX and EverSharp 66/110 cut blade
10061810	D914S Impact Tool with EverSharp 66/110 cut blade

▶▶ D914™ Impact Tool

The D914 Impact Tool is the only punchdown tool to combine torque and impact. It combines two versatile tools, the hook and spudger, into the handle. 66/110 blades available.

- Ensures clean, smooth terminations ready for optical transmission
- Industry standard, internationally accepted with lifetime warranty
- Hook and spudger tools are built into the handle
- Automatic spring handle – choose low impact for 24/26 gauge wire or high impact for 22-gauge wire
- Accept Phillips-head or flat screwdriver blade

Model	Description
10051000	D914 Impact Tool
10051100	D914 Impact Tool with EverSharp 66 blade
10051110	D914 Impact Tool with EverSharp 110 blade
10051120	D914 Impact Tool with EverSharp 110 and EverSharp 66 blade
10051501	D914 Impact Tool with EverSharp 110, EverSharp 66 blade and free screwdriver blade

▶▶ D814™ Impact Tool

The D814 Impact Tool is a deluxe, all-in-one, telecom punchdown tool and comes with the 66/110 blade. Impact wheel has high and low settings. Automatic spring mechanism provides the right impact to seat and/or terminate wires.

- Industry standard with lifetime warranty
- Accepts standard industry blades
- Lightweight and easy-to-use
- Adjustable spring impact mechanism allows low impact for 24/26 gauge wire or high impact for 22-gauge wire

Model	Description
10054000	D814 Impact Tool
10055000	D814 Impact Tool with EverSharp 66 blade
10055110	D814 Impact Tool with EverSharp 110 blade
10055200	D814 Impact Tool with EverSharp 110 and EverSharp 66 blade
10055501	D814 Impact Tool with EverSharp 110, EverSharp 66 blade and free Wood Screw Starter Punch blade
10055503	D814 Impact Tool with BIX and Eversharp 66/110 cut blade

▶▶ D-Impactor™ 5-Pair Impact Tool

The D-Impactor 5-pair impact tool easily cuts and terminates five copper pairs on a 110 block. This rugged, easy-to-use tool saves time and minimizes hand stress. The patented individually molded blades eliminate the chance of metallic shorts ensuring optimal performance of your network. Lifetime warranty.

- Single reversible blade part
- Ease of use and reversing of cutting blade
- Fewer moving parts allow for smoother push down, less hand stress

Model	Description
10059000	D-Impactor (five-pair 110 impact tool)
10059030	D-Impactor replacement blade

▶▶ EverSharp™ Blades

Fluke Networks offers three EverSharp blade designs: the EverSharp 66/110 cut blade, the EverSharp 110 blade and the EverSharp 66 blades. Through special processing of the metal, these high performance blades stay sharper longer than other competitive blades. These blades fit the D914S, D914 and D814 punchdown tools.

Model	Description
10056500	EverSharp 66 blade
10176500	EverSharp 110 blade
10178600	EverSharp 110/66 cut blade

▶▶ Blade Storage Kit

This unique blade storage case helps prevent loss, misplacement and damage of impact blades by keeping them all together in one convenient hard case. They are sized to fit neatly into shirt or pants pocket or clipped onto belt or tool pouch.

Model	Description
10979003	66 blade kit (2-66 blades, 1-630 blade, 1-Wood Screw Starter blade)
10979004	110 blade kit (2-110 blades, 1-66 blade, 1-Wood Screw Starter blade)
10979002	Blade storage case only

▶▶ Blades

Fluke Networks increases the versatility and flexibility of its line of impact tools by offering a wide variety of interchangeable blades that permit each tool to perform multiple functions. From our high-performance EverSharp blades, to our unique blade storage kit cases, Fluke Networks has the blades you need to terminate blocks and jacks quickly.

10056000	10057000	10176000	10436001	10465001	10645001
66 blade	**630 blade**	**110 blade**	**Centerpunch blade**	**3M System D blade**	**Wood screw starter punch**
10056225 **66 blade, bulk** (must be ordered in multiples of 100)		10176225 **110 blade, bulk** (must be ordered in multiples of 100)			

10565000	10565110	10665000	10051200	10051300
Cut blade, compatible with Krone/ADC	**Cut blade, compatible with Krone/ADC, 110**	**BIX blade**	**Screwdriver blade** (D914 or D914S only)	**Torque Adapter blade**

▶▶ Pro-Tool™ Kits

All the professional tools you need to cut, strip, clean and connect network phone and data lines to blocks and jacks. Bundled together in our sleek form-fitting PVC Dur-A-Grip™ tool pouch – holds your tools securely inside, even upside down. Five tool kit combinations to choose from to meet a multitude of applications.

- All kits include ergonomically designed Dur-a-Grip pouch for convenient tool storage on belt
- D914 and D814 industry standard punchdown tools make for solid terminations
- Easy-to-use cable stripper quickly rings and slits many types of cable
- Cut and strip wire cleaner and faster with the Electrician's D-Snips

▶▶ Kit Descriptions

IS60 Pro-Tool Kit
- D914S Impact tool
- Electrician's D-Snips
- Cable stripper
- Mini Maglite®
- Dur-a-Grip pouch
- EverSharp 66/110 cut blade

IS40 Pro-Tool Kit
- D814 Impact tool
- Electrician's D-Snips
- Cable stripper
- EverSharp 66/110 cut blade
- Probe pic
- Dur-A-Grip pouch

IS50 Pro-Tool Kit
- D914S Impact tool
- Electrician's D-Snips
- Cable stripper
- EverSharp 66/110 cut blade
- Dur-A-Grip pouch

Model	Description
11291000	IS40 Pro-Tool Kit
11291400	Pro-Tool Kit IS40 pouch only
11292000	IS50 Pro-Tool Kit
11292400	Pro-Tool Kit IS50 pouch only
11293000	IS60 Pro-Tool Kit
11293400	Pro-Tool Kit IS60 pouch only

▶▶ Electrical Contractor Telecom Kits

Fluke Networks Electrical Contractor Telecom Kits are comprised of industry standard telecommunications tools and test equipment. Contents include D814™ Impact Tool, cable stripper, probe pic, Electrican's D-Snips, standard 4-wire modular adapter and EverSharp™ 66/110 cut blade. Soft carrying case included for easy organization.

- Choose either Kit I with TS®30 Test Set or Kit II with Pro3000 Analog Tone and Probe
- D814 industry standard punchdown tool for reliable terminations
- EverSharp 66/110 cut blade provides flexibility for different block and jack terminations
- Cable stripper quickly rings and slits many types of cable
- Use the probe pic to check for loose or damaged connections
- Cut and strip wire cleaner and faster with the Electrician's D-Snips
- Connect to jacks for testing with the standard 4-wire modular adapter
- A soft zippered pouch keeps your tools all in one convenient place

▶▶ Kit Descriptions

Electrical Contractor Telecom Kit I
- TS®30 Test Set with angled bed-of-nails cord
- D814 Impact Tool
- EverSharp 66/110 cut blade
- Electrician's D-Snips
- Cable stripper
- Standard 4-wire modular adapter
- Probe pic

Electrical Contractor Telecom Kit II
- Pro3000™ Analog tone and probe
- D814 Impact Tool
- EverSharp 66/110 cut blade
- Electrician's D-Snips
- Cable stripper
- Standard 4-wire modular adapter
- Probe pic

Model	Description
11290000	Electrical Contractor Telecom Kit I (with TS®30 Test Set)
11289000	Electrical Contractor Telecom Kit II (with Pro3000™ Analog tone and probe kit)
11289400	Soft case, Electrical Contractor Telecom kit

Modular Crimper

Fluke Networks all-in-one crimping tool for WESS type
6- and 8-position modular telephone plugs. Crimps
8-position RJ-45 connectors and 4- and 6-position
RJ-11 and RJ-12 connectors.

- Embedded flat cable cutter and stripper

Model	Description
11212530	Modular crimper

Cable Splicing Knife

Fluke Networks cable splicing knife is the perfect tool for
splitting cable sheaths. Soft, easy-to-grip handle and cut-
lery-steel blade for durability and long-lasting blade edge.

- Short blade (4.4 cm) for strength
- Cutlery-steel blade for durability
- No slip, easy-to-grip handle
- Cuts various insulation types

Model	Description
44400000	Cable splicing knife

D-Snips™

Fluke Networks Electrician's D-Snips™ offer a unique
ergonomically-designed handle that leverages your power,
providing 1½ times the cutting force with half the effort.

- Ergonomic design provides 1½ times the cutting force with half the effort
- High-quality forged steel construction for strength and durability
- File and scraper on both blades for cleaning wire
- Notched blade for stripping 19- and 23-gauge wire
- Cuts up to 16-gauge solid and 12-gauge stranded wire

Model	Description
44300000	D-Snips

Electrician's Snips

These versatile electrician's snips feature a file and scraper
on both blades for easy wire cleaning. They also feature a
handy notched scissor blade for quickly stripping 19- and
23-gauge wire. Made to last with high-quality forged steel,
these snips are a must have for your tool bag.

- High-quality forged steel construction for strength and durability
- File and scraper on both blades for cleaning wire
- Notched blade for stripping 19- and 23-gauge wire
- Cuts up to 16-gauge solid and 12-gauge stranded wire
- Serrated blade for non-slip wire cutting

Model	Description
44500000	Electrician's snips

Cable Strippers

Fluke Networks line of cable strippers includes a double slotted cable stripper for 22/24 AWG wire installation and a coax stripper to perform 2-level and 3-level stripping of RG58/59 coaxial cables. We also offer a combo stripper that cuts and rings Teflon®, smoothly slits fiber, copper and coaxial cables, and rings 25-100 pair cable.

- Full line of cable strippers offered
- Round cable stripper for a variety of flexible round cable
- Coax strippers with two or three levels

Model	Description
11230002	Cable stripper (round cable)
44210013	Double slotted stripper with cutter, 22/24 gauge
44200013	Double slotted stripper 22/24 gauge
11231257	Coax stripper, 2-level
11231255	Coax stripper, 2 and 3-level

Need-L-Lock™ Crimping Pliers

The Need-L-Lock pliers' patented four-in-one tool combines UR/UY/UG connector crimper with needle-nose pliers so you can carry one less tool on your belt. Aligned crimping jaws come down square ensuring a solid connection. Jaws are grooved to provide a better grip on wires and feature a built-in cutter and wire stripper.

- Needle nose pliers
- UR/UY/UG connector crimper
- Wire stripper hole
- Built-in side cutter
- Rubber coated handles for non-slip grip

Model	Description
11294000	Need-L-Lock crimping pliers

Probe Pic

Fluke Networks handy, pocket-sized insulation probe is ideal for checking for loose or damaged connections or to spread apart wires for direct access. Its compact size also makes it perfect for using the pic end for tracing or pulling wires from a bunch.

- Trace and pull wires with the pic end
- Check for loose or damaged connections
- Spread apart wires for direct access
- Compact size

Model	Description
44600000	Probe pic, 105 degree

Can Wrench

Fluke Networks can wrenches allow universal access to telephone boxes and pedestals. Open telephone box fasteners and tightens nuts on binding post terminals.

- Two hex head sockets (7/16 inch and 3/8 inch)
- Color-coded socket ends for quick size identification
- Wrench body constructed of tough, impact resistant and abrasion resistant material
- Socket ends guaranteed not to split or break up to a maximum torque of 45 pounds
- Two models available with wire stripper in handle (22 or 24 gauge)

Model	Description
44007000	Can wrench, hex head
44507003	Can wrench with stripper, 22 gauge
44507004	Can wrench with stripper, 24 gauge
10660001	Security key insert

▸▸ Basic tools to get the job done quickly and accurately

While it's easy to get caught up in the technology of today's cable testers, it's important to remember that the installation starts with some very basic tools. And having the right tool can make all the difference. To begin cutting, stripping, and connecting cabling blocks and jacks, you need a punchdown tool with impact force, a cable stripper, and a pair of scissors. You only have two hands, so a durable pouch to carry these tools will be helpful for transport and ease-of-use once you are on the job.

Punchdown Tool

A punchdown tool properly terminates telecommunications cables. When any wire is punched down, force is required to seat and terminate the wire. The basic impact tool has a spring-loaded head, which you compress using the force of your hand. Once the spring reaches full compression, it's automatically released and the force is transferred to the head of the impact tool, which seats the wire.

Most impact tools accommodate a number of interchangeable blades, depending on the cabling system at your job site. The tool helps you push each wire into the IDC tower to make a permanent connection. Some punchdown tool blades have a cut side that removes the excess wire after the wire is pushed onto the connector; others require you to cut off the wire snips. Also, some punchdown tools offer a soft, rubber handle. This gives you a better grip and reduces wear and tear on your hand. Let the tool absorb some of the impact recoil and give your hand a rest!

Cable Stripper

A cable stripper with an adjustable gauge guarantees fast, easy removal of outer insulation from all unshielded twisted pair, shielded twisted pair and multicore cables. An adjustable depth gauge and a reference for checking the length to be stripped ensures repeatable results and improves work quality. Using alternative methods such as a pocket knife or scissors could result in stripping more cable sheath than necessary and damaging the cable itself.

Snips

Professional snips are important for a fast, clean, and safe cut. You'll need to cut cable and trim excess wires on every job. Some specialty tools offer a unique, ergonomically-designed handle that leverages your physical strength, providing 1½ times the cutting force with half the effort. The special "tail" on the handle that provides the added leverage also minimizes hand fatigue.

Armed with a punchdown tool, a cable stripper and pair of professional snips, you will be well on your way to a successful installation. A professional, durable pouch that holds these tools and clips to your belt will save you time and give you more freedom.
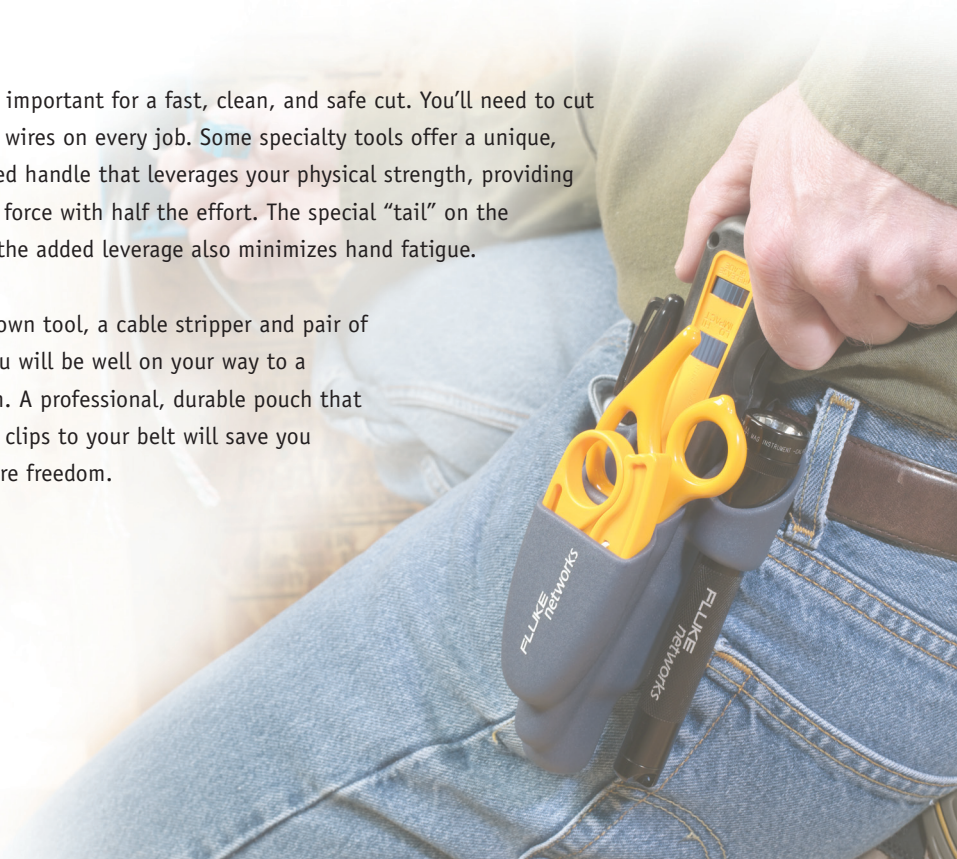
Telephone Butt-In Test Sets

Complete line of analog butt-in telephone test sets provides the view you need to ensure telecommunications services

Fluke Networks offers the most comprehensive line of telephone test sets to meet the voice and data demands of telecommunications technicians. Our DropSafe™ reliability and RainSafe™ protection ensure maximum ruggedness, even in the most extreme conditions. Our DataSafe™ technology is vital in preventing interruption of existing data traffic, and our DSL/POTS filtering technology goes one step further to allow testing on the POTS side of a line even while data is present.

We continually improve our line of butt-in test sets to ensure technicians have the right features to match their application needs – with the most flexible options for every budget.

Telephone Test Set Comparison

	TS®52 PRO	TS®44 PRO	TS®42DLX	TS®22A	TS®22	TS®25D	TS®30 / TS®120*	TS®19
Display – back lit LCD and glow-in-the-the dark keypad	✓					LCD only		
Extended range high-impedance DataSafe operation in monitor mode	✓	✓	✓			✓		
High-impedance DataSafe operation in monitor mode	✓	✓	✓	✓		✓	✓	✓
Data lockout protection	✓	✓				✓		
Data lockout override	✓	✓				✓		
DSL/POTS filtering technology	✓	✓	✓			✓		
Low/high voltage indication	✓	✓	✓			✓		
Low current (mA) indication	✓	✓	✓			✓		
Over voltage protection	✓	✓	✓	✓	✓	✓	✓	
Over current protection	✓	✓	✓	✓	✓	✓	✓	
Two-way speakerphone for true hands-free conversations	✓	✓	✓	✓				
One-way amplified speaker for hands-free monitoring	✓	✓	✓	✓	✓	✓		
Audible ringer for callbacks	✓	✓	✓	✓	✓	✓	✓	✓
Waterproof – exceeds American Military Spec. MIL-STD-810E	✓	✓	✓					
RainSafe – safe in severe weather conditions	✓	✓	✓	✓	✓		✓	
DropSafe – passes 6 metre (20 foot) drop test onto concrete	✓	✓	✓	✓	✓		✓	
Meets Bellcore specifications	✓	✓	✓	✓	✓		✓	
Tone and pulse operation	✓	✓	✓	✓	✓	✓	✓	✓
Polarity indication in talk mode	✓	✓	✓	✓	✓	✓	✓	✓
PBX pause button	✓	✓	✓	✓	✓	✓		
Stores nine 18-digit numbers in repertory dialer (speed dialing)	✓	✓	✓	✓	✓	✓		
Replaceable 9V battery for powering speaker	✓	✓	✓	✓	✓	✓		

* TS120 for outside North America only. 67/33 break/make ratio.

▶▶ TS®52 PRO LCD Test Set CE

Fluke Networks new TS®52 PRO Test Set features the latest in test set technology. Designed with a superior, radiant liquid crystal display (LCD) user interface, it allows you to see what cannot be heard in any outside plant environment. The back lit LCD and phosphorescent (glow-in-the-dark) keypad brings light to even the darkest of work environments, providing perfect line diagnostic clarity. The TS®52 PRO Test Set is also equipped with 2-way speakerphone and DataSafe™ Pro data protection technology featuring superior high-impedance monitoring, data lockout and lockout override, making you completely safe.

- **Display** – back lit LCD and glow-in-the-the dark keypad
- **DataSafe™ Pro** – superior high-impedance monitoring, lockout and override, making you completely safe in any mode
- **DropSafe™/RainSafe™** – passes 6-metre drop test and designed for use in rainy conditions
- **DSL/POTS filtering technology** – allows technicians to clip on a live DSL line to test POTS service without downing or disrupting data service
- **Two-way, hands-free speakerphone** – for true hands-free conversation
- **Test functions:**
  – Data indication: warns when data is present.
  – Voltage indication: troubleshooting feature to identify potential line problems
  – Current (mA) indication: verifies sufficient line current
  – Caller-ID: verifies service is functional
  – DTMF digit grabbing: isolate faulty customer premise equipment

Model	Description
52801001	TS52 PRO test set with piercing pin clips
52801004	TS52 PRO test set with 346A plug
52801009	TS52 PRO test set with ABN/PP clips
52801RJ9	TS52 PRO test set with ABN/PP and RJ-11 plug

Telephone/Data Room or Central Office

Cross Box or Serving Terminal

Inside or Outside the Customer Premise

Telephone Test Equipment

▶▶ TS®40 Series Test Sets

Built for the demanding professional, the TS40 Series test sets combine an ergonomic water-proof design, DropSafe™ durability and a standard 3-year warranty for unmatched reliability. The TS40 Series test sets offer speakerphone capability for true hands-free conversations, a rugged ergonomically designed waterproof case that exceeds STD-810E and are DropSafe tested to 6 metre onto concrete. Designed with superior high-impedance monitor to protect data lines, the TS40 Series offers the best DataSafe™ protection in its class. Advanced testing functions for low/high voltage and low (mA) current detection are displayed in easy-to-read LEDs. Always-on monitor mode simplifies operation and speeds testing; just clip on to the pair and it is monitoring.

• DataSafe operation with superior high impedance monitor
• Advanced testing functions for low/high voltage and low (mA) current
• Always-on Monitor Mode
• Ergonomic DropSafe case
• High fidelity, 2-way speakerphone for true hands-free conversations.
• TS®44 PRO includes Data Lockout, Lockout Override and DSL/POTS filtering

Model	Description
50801001	TS44 PRO test set with piercing pin clips
50801004	TS44 PRO test set with 346A plug
50801009	TS44 PRO test set with ABN/PP
50801RJ9	TS44 PRO test set with ABN/PP and RJ-11 plug
42801001	TS42 DLX test set with piercing pin clips
42801004	TS42 DLX test set with 346A plug
42801009	TS42 DLX test set with ABN

▶▶ TS®30 Test Set CE

The TS30 test set features the latest in test set case design, at an affordable price. The ergonomic non-slip grip handle provides improved handling of the set in all weather conditions. Includes DataSafe™ operation so technicians can clip onto a line in monitor mode, without disrupting existing data traffic.

• High impedance DataSafe operation in monitor mode
• DropSafe™ reliability passes 6 metre drop test
• RainSafe™ protection in severe weather conditions
• Mute switch
• Last number redial

Model	Description
30800009	TS30 test set with ABN
30800001	TS30 test set with piercing pin clips

▶▶ TS®22 Series Test Sets CE

The TS22 Series test sets' unique built-in, one-way amplified speaker provides three audio levels for hands-free listening and use with automated voice response systems. Multiple memories enable storage of nine 18-digit telephone numbers in repertory dialer (speed dialing) for easy access to test boards, the central office and other frequently called numbers. The last number redial feature eliminates the need to re-key your last entry. The TS22 test set offers an unbeatable combination of reliability, durability and expanded utility.

- TS22 test set has an amplified speaker for hands-free monitoring
- TS22A test set has a two-way speakerphone for true hands-free conversation
- DropSafe™ reliability passes 6 metre drop test
- RainSafe™ protection in severe weather conditions
- Stores nine 18-digit numbers in repertory dialer (speed dialing)

Model	Description
22801009	TS22A test set with ABN
22801007	TS22A test set with ground start cord
22801004	TS22A test set with 346A plug
22801001	TS22A test set with piercing pin clips
22800009	TS22 test set with ABN
22800007	TS22 test set with ground start cord
22800004	TS22 test set with 346A plug
22800001	TS22 test set with piercing pin clips

▶▶ TS®25D LCD Test Set CE

The TS25D test set features data lockout and lockout override, making you completely safe in talk or monitor mode. The DSL/POTS filtering technology allows you to safely draw dial tone without downing DSL. A built-in analog tone generator simplifies wire identification with a probe. An amplified speaker makes monitoring the line hands-free, so you can keep working. The Talk Battery function provides voltage to carry voice conversation on non-powered pairs. Also includes Caller-ID and Call-waiting Caller-ID functions. All in a compact unit with an oversized, robust liquid crystal display (LCD) that makes the intuitive, common-sense menus easy-to-read and use.

- Caller-ID and Call-waiting Caller-ID
- Amplified speakers for hands-free monitoring
- Data lockout and data lockout override
- Tone generator for wire identification
- Talk battery to power voice conversation on dry (non-powered) lines

Model	Description
25501109	TS25D test set with ABN kit (includes pouch and earpiece)
25501009	TS25D test set with ABN
25501004	TS25D test set with 346A plug
25500400	TS25D pouch only
25500300	TS25D battery door with belt clip

TS®19 Test Set CE

The TS19 test set combines all the essential test set features at an affordable price. This test set was specifically designed for in-house telecom technicians. Its high impedance monitor prevents accidental disruption of service from clipping onto a data line while in Monitor Mode, thus ensuring the integrity of critical data lines. Features such as tone (DTMF) or pulse operation, talk/monitor capabilities, polarity test button and last number redial make this test set the perfect combination of features and price.

- High impedance DataSafe™ operation in monitor mode
- Tone (DTMF) and pulse operation
- Last number redial
- Polarity indication in talk mode

Model	Description
19800009	TS19 test set with ABN
19800003	TS19 test set with banana jacks to alligator clips

In-line Modular Adapter (4, 6, and 8-wire)

In-line banjo modular adapters permit testing on working lines without disrupting service. Quickly determine whether the trouble is in the phone or in the line.

- Easily complete testing and obtain circuit access on working lines without disrupting service
- Clear circuit markings on the sides and bottom of the unit
- Test line status with the 4-wire modular adapter

Spare Modular Adapter Cords (standard and K-plugs)

In-line banjo modular adapters feature replaceable adapter cords which enable broken jack clips to be replaced without discarding the entire unit. K-plug versions have rugged jack clips.

Model	Description
10210100	4-wire in-line modular adapter
10210101	4-wire in-line modular adapter with K-plug
10220100	6-wire in-line modular adapter
10220101	6-wire in-line modular adapter with K-plug
10230100	8-wire in-line modular adapter
10230101	8-wire in-line modular adapter with K-plug
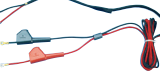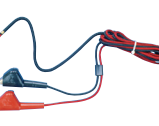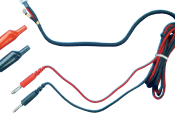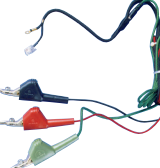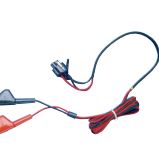
4-wire Standard Modular Adapter

Test line status with the 4-wire modular adapter. Provide a quick connect to modular telephone jacks using any standard butt-in test set equipped with spring clips.

- Easily complete testing and obtain circuit access on working lines without disrupting service
- Clear circuit markings on the sides and bottom of the unit
- Test line status with the 4-wire modular adapter

Model	Description
10113000	4-wire modular adapter

▶▶ Line Cords and Clips

P4480009	**P4480001**	**P4480004**	**P4480RJ9**	**P3218024**	**P3218028**
Line cord with Angled Bed-of-Nails Clips	Line cord with Angled Piercing Pin Clips	Line cord with 346A plug (Central Office)	Line cord with Bed-of-Nails and RJ-11 plug	Line cord with Straight Bed-of-Nails Clips	Line cord with Angled Piercing Pin Clips
Compatible with 52 & 40 Series	Compatible with 52 & 40 Series	Compatible with 52 & 40 Series	Compatible with 52 & 40 Series	Compatible with 20 Series	Compatible with 20 Series

P3218231	**P3218232**	**P3218234**	**P3080009**	**P1980001**	**P1980003**
Line cord with Boots, no Clips	Line cord with 346A Plug (Central Office)	Line cord with Angled Bed-of-Nails Clips	Line cord with Angled Bed-of-Nails Clips	Line cord with Angled Piercing Pin Clips	Line cord with Banana Jacks and Alligator Clips
Compatible with 20 Series	Compatible with 20 Series	Compatible with 20 Series	Compatible with 30 Series	Compatible with 19 Series	Compatible with 19 Series

P1980007	**P1980009**	**P3218124**	**P3218RJ9**	**P3218442**	**P2280062**
Line cord with Ground Start cord	Line cord with Angled Bed-of-Nails Clips	Line cord 471 A Plug with RJ-11 Plug	Line cord with Angled Bed-of-Nails Clips and RJ-11 plug	Line cord 471A Plug with Angled Piercing Pin Clips	Ground start cord
Compatible with 19 Series	Compatible with 19 Series	Compatible with all, requires 346A Plug cord	Compatible with the TS20 Series	Compatible with all, requires 346A Plug cord	Component for P1980007

P3218202	**P4080248**	**P4080249**	**P3218249**
Angled Bed-of-Nails, Pkg. 1 each	Standard locking belt clip	Belt clip	Belt clip
Compatible with all	Compatible with 52 & 40 series	Compatible with 52 & 40 series	Compatible with 19, 20, 30 series

Line cord boot only

P3218-418 Black Boots (Pkg. 10)

P3218-420 Red Boots (Pkg. 10)

Access Network Test Equipment

Complete line of access network test sets for the successful installation and troubleshooting of carrier Ethernet, xDSL and special services

Effective installation and maintenance solutions are essential to keep customers happy and technicians productive. Award-winning field test products from Fluke Networks earned their reputation where it matters most: on the job.

We offer test and troubleshooting solutions that address a wide range of technologies and applications, from POTS to carrier Ethernet, xDSL to IP, and more. Whether it's validating service level agreements (SLAs) for carrier-class Ethernet services, qualifying and deploying ADSL2/2+ or VDSL services, isolating cable faults, eliminating noise problems, or stress testing circuits prior to service installation, Fluke Networks powerful tools help technicians get to the solution fast.

Fiber OneShot™ Optical Test Set CE

Fiber OneShot is a pocket-sized optical test set designed to take the complexity out of single-mode fiber testing. Fiber OneShot's one-button-test capability will quickly and accurately verify if a fiber is active and find the distance to a break or end, dirty end face or reflective event – going from zero to 6,000 metres. This portable FTTx tester is designed to increase productivity and decrease training time. The Fiber OneShot allows testing anywhere in the network – central office, node, hub, drop or optical network terminal (ONT) – and is fast, affordable, lightweight and accurate.

The Fiber OneShot is built to last. The Fiber OneShot incorporates an energy-absorbing holster over an impact-resistant case to withstand drops, impacts, and the tough outside plant environment ensuring years of trouble-free operation. Together with a heavy-duty tethered end cap to protect the fiber adapter the Fiber OneShot is the test set for demanding field applications.

Testing benefits increase your productivity:

- Measure the length of your fiber quickly and accurately
- New CheckActive™ feature alerts you if an optical signal is on the fiber
- Instant on – no boot/load time
- One-button testing – expedite your fiber testing with one button in just a few seconds
- Locate fiber faults at one metre
- Test results displayed numerically – no interpretation needed

Model	Description
FIBR-1-KIT	Fiber OneShot™ Optical Test Set, SC adapter, UPC-APC, UPC-UPC 1-metre launch cords, holster, case, 22 language-QRC on CD, manual and batteries
FIBR-1-SHOT	Fiber OneShot™ Optical Test Set, SC adapter, holster, 22 language-QRC on CD, manual and batteries
FIBR-1-KIT-VF	Fiber OneShot™ Optical Test Set, SC adapter, UPC-APC, UPC-UPC 1-metre launch cords, holster, case, 22-QRC on CD, manual, batteries + VisiFault™ Visual Fault Locator with 2.5mm universal adapter
FIBR-1-KIT-PM	Fiber OneShot™ Optical Test Set, SC adapter, UPC-APC, UPC-UPC 1-meter launch cords, holster, case, 22-QRC on CD, manual, batteries + SimpliFiber® Pro Optical Power Meter; SC adapter included
FIBR-1-KIT-VFPM	Fiber OneShot™ Optical Test Set, SC adapter, UPC-APC, UPC-UPC 1-metre launch cords, holster, case, 22-QRC on CD, manual, batteries + VisiFault™ Visual Fault Locator with 2.5mm universal adapter + SimpliFiber® Pro Optical Power Meter; SC adapter included

Accessories

Model	Description
FIBR-AC-UAPC	1-metre UPC APC launch cord (Use with Fiber OneShot only, Not for OTDR use)
FIBR-AC-UUPC	1-metre UPC-UPC launch cord (Use with Fiber OneShot only, Not for OTDR use)
FIBR-AC-CH	Holster case, Fiber OneShot

▶▶ LinkRunner™ Duo CE Pocket Carrier Ethernet Test Set CE

If you're installing carrier Ethernet, you've been forced to choose between thorough testing with a dedicated performance test set or plugging it in and hoping for the best. Dedicated test sets allow your team to thoroughly test the links but they can be costly. And "plug and pray" can result in callbacks and extended troubleshooting sessions. Fluke Networks LinkRunner Duo CE Pocket Carrier Ethernet Test Set reduces your costs and increases customer satisfaction. It's designed to help technicians quickly turn up and troubleshoot carrier Ethernet, and, it works with your existing performance testers when you need more complete testing.

LinkRunner Duo CE Features:

- **Link Verification of Fiber and Copper Circuits at 10/100/1000MBps** – quickly determine if the circuit is up or not

- **Performance Testing with MetroScope and other Popular Test Sets** – use as a remote device for ProVision™, RFC 2544 and other performance tests with testers from Fluke Networks, JDSU, Sunrise, Exfo and more

- **Layer 1, 2, and 3 Loopback** – configurable loop back to filter frame type and swap MAC and/or IP addresses. Manual or DHCP IP configuration

- **Fiber Power Measurements** – make sure that the incoming signal meets requirements

- **PING Testing** – measure availability and response performance for key devices or URLs

- **VLAN Verification** – configurable VLAN and priority settings

- **Designed for the Field** – small (fits in a shirt pocket), lightweight (280g), battery operated and rugged. Operates for over three hours with a removable Li-ion battery pack, four AA batteries, AC or optional car charger (optional)

- **Document Results** – save link and ping test results and upload to a PC through the USB port

- **CPE Testing** – pinpoint problems on the customer side with port identification and 802.1x testing, cable and connectivity tests. Verify port settings and troubleshoot speed and duplex mismatch issues

- **Cable Testing** – test cabling and patch cords, including support for toning

- **Media Access** – Copper: 10BASE-T, 100BASE-TX, 1000BASE-T (IEEE 802.3); Fiber (SFP): 100BASE-FX, 1000BASE-LX, SX, ZX, BX

- **Easy Upgrades** – the mini-USB port on the LinkRunner Duo CE allows software upgrades in the field in jut minutes. And with our Gold support, you'll automatically receive upgrades at no additional charge. The LinkRunner Connect software also allows you to download reports and capture screen graphics

Model	Description
LR-DUO-CE	LinkRunner Duo Carrier Ethernet Tester
GLD-LR	1-year of Gold Support – LinkRunner Duo
WIREVIEW 1	Wiremap Adapter
Wireview2-6	Wireview Cable IDs #2-6
MS-AUTO-CHG 12V	Car Charger for LinkRunner Duo
ES2-ZX	ZX DDM SFP
MS-SX	SX DDM SFP
MS-LX	LX DDM SFP

CopperPro™ Series II Broadband Loop Tester

The CopperPro Series II is the complete test set for qualifying your local loop for ADSL, ADSL2/2+, VDSL and special services. It packs all the test, analysis and troubleshooting capabilities an OSP technician needs into one integrated, handheld tool. New features include broadband noise identification for VDSL, advanced TDR capabilities for locating short bridge taps and other VDSL-affecting impairments, and an optional ADSLx and VDSL modems for verifying service connectivity and performance. Rugged construction and easy-to-use features give your technicians the ability build, repair, install, and maintain OSP systems more efficiently with fewer repeats.

- Quickly qualify the facilities for DSL services including ADSL, VDSL, HDSL, T1 and other special services
- Easily identify and locate possible problems to ensure reliable performance
- Install new services efficiently with fewer call-backs
- Verify connectivity and network performance to ensure that next-generation services perform up to your customers' expectations

Expedite Installation and Maintenance

CopperPro Series II makes fast work of installing and maintaining service. The one-button POTS Auto-Test quickly documents status before and after work is complete. The CopperPro also gives you a clear view of all the basic tests you need to ensure top performance, including:

- AC and DC voltage
- Loop current
- Circuit noise
- Balance and leakage
- Caller-ID/ANI

Plus, you can quickly run loss and slope tests with its automated dial-up testing, and use the built-in dial set with phone number storage. You can also verify xDSL connectivity, performance and capacity up to VDSL rates with optional xDSL golden modems.

Streamline Trouble Calls

Step-by-step instructions make CopperPro Series II a breeze to set up. Use the unique TDR Auto-Test to:

- Zero in on faults such as short bridge taps and shorted or open pairs
- Count and locate load coils

| Model	Description
990DSL2+	CopperPro Next Gen Copper Loop Analyzer w/TDR & wideband spectral analysis for ADSL2+
990VDSL	CopperPro Next Gen Copper Loop Analyzer w/TDR & wideband spectral analysis for VDSL
990TL-SB/RF	RF Test lead set for 990DSL2+ or 990VDSL with spike+bed-of-nails piercing clips
990LT	990LT CopperPro™ Test Set – Next-generation loop analyzer (basic)
990LT/TDR	TDR option for the 990LT CopperPro™ Test Set
990LTD/DSL	DSL option (2.2 MHz) for the 990LT CopperPro™ Test Set
990LT/VDSL	VDSL option (17.7 MHz) for the 990LT CopperPro™ Test Set with DSL option installed
990-GM/2	ADSL/ADSL2/2+ Golden Modem Option for CopperPro Series II
990-GM/V-2	ADSL, ADSL2, ADSL2+, VDSL2 Golden Modem Option for CopperPro Series II

▸▸ 990DSL CopperPro™ Loop Tester CE

The CopperPro loop tester offers a broad range of Plain Old Telephone Services (POTS) trouble-shooting, fault location and line qualification capabilities in an affordable package. Its Wideband/TDR option adds high-frequency transmission testing and qualification functions for services like ADSL, HDSL and HDSL2, ISDN, T1, E1 and DDS. And the TDR option adds precise fault location and analysis. CopperPro is packed with test, analysis and troubleshooting capabilities integrated with an easy-to-use toolbox interface that makes identifying and locating faults as simple as pushing a button.

- Replaces up to 12 traditional test sets
- Troubleshoots and qualifies lines for POTS, ADSL and other special services
- Time Domain Reflectometer (TDR) feature allows precision fault locations

Model	Description
990 DSL	CopperPro Loop tester
990DSLWT	Loop tester with wideband and TDR
990TL-SB	Test lead set (Spike and bed-of-nails)
990-CASE	Deluxe transport bag
GLD-990DSL	1-year of Gold Support
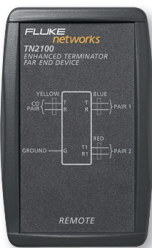
▸▸ CopperPro Terminator™ Far End Terminating Device

The CopperPro family of loop testers from Fluke Networks packs a full complement of test and troubleshooting capabilities into one rugged, integrated tool for OSP technicians. You can expand those capabilities even further with Terminator – an accessory module to the 990DSL CopperPro that lets you perform terminated transmission testing quickly, easily, single-handedly. Together, the CopperPro and Terminator are a major advance in qualifying and troubleshooting copper access network circuits, including HDSL2/4. Nothing else on the market offers a more complete and effective solution for reducing failure frequency, repeats, and chronic problems with special services circuits.

- Perform terminated transmission testing quickly, easily, single-handedly
- Optimize your workforce with "one tech out" terminated testing of out-of-service pairs
- High-speed acceptance/qualification tests, including loop attenuation – a must for HDSL2/4
- Robust error checking eliminates time-consuming false starts and assures reliable communication with the 990DSL CopperPro test set
- Sweep thousands of frequencies in seconds

Model	Description
TN2100	Enhanced Terminator far end device
TN-LEADS-B	Test lead set, bed-of-nail clip

635 QuickBERT-T1 Test Set

Compact, handheld T1 test set for construction, installation and troubleshooting applications. Instantaneous detection and display of framing, line coding, errors, alarms, level, frequency and more. In a single 4 lb (1.8 kg) package, the 635 includes all the basic T1 testing capabilities you would expect in a larger and more expensive tester. It performs bit-error tests, detects framing type, line coding and bit pattern, and displays signal level, frequency, clock slips, errors and alarms. The 635 transmits the most commonly used loop codes, including HDSL. Full, unframed and fractional (56k and 64k) T1 are supported, along with display of signaling and data bits and capture of DTMF digits. Plus, individual voice channels may be monitored on the built-in speaker or over a headset.

- Instantaneous detection and display of framing, line coding, errors, alarms, level, frequency and more
- Transmits and receives common Bit Error Rate Test (BERT) patterns and includes all common loop codes
- Compact, rugged and easy-to-use

Model	Description
635	QuickBERT-T1, carrying case, ToolPak™ hanging accessory, and necessary cables and adapters
633/635-Kit	2 Bantam-to-310 cables, 2 Bantam-to-alligator clip cables, 1 Bantam-to-RJ-48 cable
635-1	635 QuickBERT-T1 and cable kit

Voltage Detector

In just a few seconds, a technician can determine if it's safe to work around areas such as transformer cases and circuit breaker housings, power ground wires or newly-driven ground rods, mobile homes, metallic siding or metal framing, pedestals, cross boxes or conduit, street light fixtures or electrical machinery. The Voltage Detector is a proven life-saver, with more than 30 years of service in telecommunications outside plant and power utility applications.

- Helps protect against accidental electrocution
- Is fast and easy-to-use. Handy as a flashlight
- Rated to 20,000 Vac and 2,000 Vdc

Model	Description
C9970	Voltage Detector
C9973	Voltage Detector kit – includes Voltage Detector, probe cap, storage bag, temporary bond, ground cord and handbook
C9974	Voltage Detector kit with test plug

Access Network Systems

Effectively manage your broadband network to ensure high quality and rapid service delivery, trouble resolution and repair

Today's residential broadband network is more critical than ever. Customer's place high expectations on availability, performance and quality at every touch point in a service provider's organization, including customer care agents and field service technicians.

Fluke Networks offers solutions that address business needs from network qualification, service assurance and customer care to service installation, trouble resolution and proactive network maintenance.

DaVaR™ and DaVaR NetDSL™ Test Systems

The DaVaR™ and DaVaR NetDSL™ family of test solutions provides bulk records purification, VDSL qualification and single-pair testing applications. The DaVaR NetDSL System allows users to perform single-ended testing on both working and spare lines along with automatically updating the host database for DSL qualified pairs with the DaVaR NetServer. This unique ability to provide quick and accurate service level qualification on both working and spare pairs allows service providers to identify and target new customers for high-speed service, dramatically reducing customer acquisition costs and generating revenue faster.

- Bulk pair ADSL, ADSL2, ADSL2+ and VDSL qualification
- Qualifies spare and working lines
- Real-time upstream and downstream bandwidth estimates
- Test for capacitive and resistive faults, splices, splits, impulse noise and load coils
- Single-end testing for wideband noise and longitudinal balance
- Easy integration with existing DaVaR programs
- Compatible with existing DaVaR NetServer

Model	Description
D9290NT-PKG	DaVaR NetTest Single Engine Package – single test engine bulk VDSL records verification - includes DaVaR single engine (one test head), one ETAM II (200 pair), rugged laptop, DaVaR software for records verification and a printer
D9290DSL-SE-PKG	NetDSL Single Engine Package – single test engine bulk VDSL qualification and records verification - includes NetDSL VDSL Wideband Dual Engine (one test head), one ETAM II (200 pair), rugged laptop, NetDSL software for VDSL qualification and records verification and a printer
D9290NSD-PKG	Super DaVaR + Dual engine bulk records verification - includes Super DaVaR + POTS dual engine (2 test heads), two ETAM II (200 pair), rugged laptop, super DaVaR software for records verification and a printer
D9290DSL-PKG	NetDSL Package – dual engine bulk VDSL qualification and records verification - includes NetDSL VDSL wideband dual engine (two test heads), two ETAM II (200 pair), rugged laptop, NetDSL software for VDSL qualification and records verification and a printer
D7012	ETAM II – 100 pair access for DaVaR and NetDSL systems
D9912-01	AccessView Response Unit – number identification responder. Dual channel to support two calls at the same time
D9290DSLEU-PKG	NetDSL Expansion Unit Package – dual engine bulk VDSL qualification and records verification - includes NetDSL VDSL wideband dual engine (two test heads) and two ETAM II (200 pair). *Note: requires NetDSL base unit and Net DSL software license

▶▶ NetTech Test System

The NetTech family of xDSL plant qualification and test solutions provides all technicians working in the outside plant a full complement of testing, fault locating and qualification capabilities in a single, rugged, hand¬held test platform. The NetTech platform performs single pair xDSL qualification testing, stores test results for documentation and sends results back to the DaVaR NetServer to complete the DSL conditioning process.

- **DaVaR NetServer**™ — Centralize server interfaces with the loop records database, performs automatic database correction updates, generates web reports and facilitates management of the overall program.

- **DaVaR NetDSL**™ **Field Controllers** — Performs high-speed bulk pair testing and DSL qualification of the local loop from either the main distribution frame, cross-box or pedestal. Performs VDSL Qualification and Records Verification .

- **NetTech Fault Location Tool** — Downloads fault pair reports from the NetServer and facilitates pair troubleshooting to perform single pair DSL Qualification testing

Model	Description
NETTECH-1	NetTech Single Engine with One CopperPro™ II – includes one CopperPro™ Series II VDSL tester, rugged laptop and NetTech software. Add additional CopperPro™ Series II for second test engine. *Note: compatible with DaVaR NetServer for results storage and records database updates
NETTECH-2	NetTech Dual Engine with Two CopperPro™ II – includes two CopperPro™ Series II VDSL testers, rugged laptop and NetTech software. *Note: compatible with DaVaR NetServer for results storage and records database updates

▶▶ AccessView System

The AccessView System provides on-demand, comprehensive parametric testing and diagnostic capabilities. The compact, environmentally rugged design eliminates the installation problems for testing remote switches, digital loop carriers, or fiber-to-the node systems where space is premium.

Our unique compact, modular platform lowers costs, improves technician productivity and enhances customer satisfaction as you build and optimize your changing copper-based network.

The Key benefits of AccessView are:

- Reduces time to troubleshoot customer issues and maximizes efficiency of dispatches
- Reduces turn-up issues and minimizes expenses
- Reduces repeats, improves productivity and ensures service quality
- Allows enterprise-wide management, bulk testing and DSL qualification

Model	Description
AccessView-RU	AccessView Response Unit (RU) - provides switch interface to legacy Class 5, DLCs and soft switches for test unit routing, telephone number identification, technician line conditioning and drop battery application. A single RU can control (route) requests to multiple AccessView Test Unit (TU).
AccessView-TU	AccessView Test Unit (TU) - provides accurate copper loop line testing for voice (POTS) testing and ADSL query and rate prediction. Modular, small form factor and temperature hardened for easy installation in the exchange or remote cabinets.
AccessView-BU	AccessView Bus Unit (BU) - the AccessView Bus Expansion Unit is used to connect an AccessView Test Unit to multiple switch or DLC Test Busses. The BU provides connection to 24 two-wire test busses or 12 four-wire test busses in TMMX mode or connection to 4 nine-wire DLC ports in TPE mode. Multiple BUs may be daisy chained to handle large sites.
AccessView-Tray	AccessView Tray - 1U Mounting Tray to accommodate up to three Access-View units. Integrated power supply and cabling system for easy installation and mounting in the central office exchange.

Network Forensics

Find Network and Application Problems Faster with Application-Centric Network Forensics Analysis

By taking you from the broad application level to the packet level, our solutions help you get to the root cause of the toughest application problems the first time they occur. This saves downtime, helps improve user productivity and customer satisfaction, enhances service level agreement performance, and frees IT staff to work on more value-added tasks.
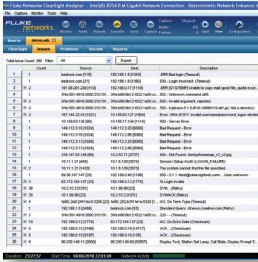
ClearSight™ Analyzer

Application-centric analysis software that gives quick answers to application performance problems without looking at packets.

ClearSight Analyzer (CSA) is a powerful network monitoring and application analysis solution. CSA provides deep network insight and visibility required for today's complex and multi-protocol networks. CSA's intuitive and easy-to-use interface provides a comprehensive view of the network plus the ability to drill down to lower layers of the network stack. Its real-time protocol analysis capabilities make it a powerful monitoring and troubleshooting tool. With support of third-party decode engines, such as Wireshark, CSA can decode about 1,000 protocols. It operates with most NDIS-compatible Network Interface Cards (NICs) supporting line speeds up to 1 Gbps.

- Application-centric summary view displays the health of the most commonly used applications, giving you an instant view of performance
- Real-time monitoring provides 7-layer statistics and automatic problem/issue identification
- Multi-segment analysis provides quick visibility on how applications progress through up to 4 segments of the network without the need to look at decodes - speeding root cause diagnosis of application problems
- Reconstruction and playback of application content such as audio/video, web pages and email from real-time traffic or trace files
- Seamlessly integrate 3rd party decode engines, such as Wireshark for customized decode views

Model	Description
CSN/CSA-1000	ClearSight Analyzer Software
CSN/CSA-1000CD	ClearSight Analyzer Software on CD
CSN/CSA-1045	CSA W/IP Multicast/History Rprt/Packet Gen
CSN/CSA-1045CD	CSA W/IP Multicast/History Rprt/Packet Gen on CD
CSN/OPT-3045	IP Multicast Visualization, Hist Reporter, and Packet Gen for CSA

Part of
OptiView Management Suite

MACRO VIEWS

REMOTE VIEWS

PORTABLE VIEWS

MICRO VIEWS
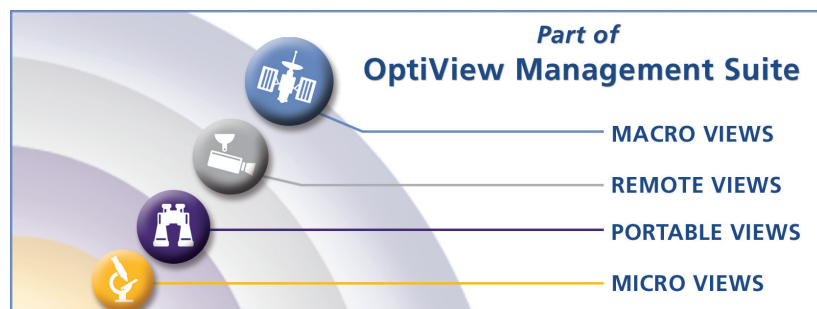
▶▶ Network Time Machine™

High-performance critical link analysis, storage for data forensics and back-in-time troubleshooting with application-centric analysis.

Network Time Machine's multiple monitor ports interface with multiple critical 1/10G links for traffic monitoring. Stream-to-disk technology records all packets for extended periods. Built-in deep packet inspection and analysis provides the ability to monitor enterprise network performance. The Atlas option can quickly analyze large amounts of captured traffic through a special indexing mechanism. All analysis and packet decodes are done on board without needing to pull data across the network – saving valuable bandwidth even when up to 4 remote users are analyzing data.

- Capture traffic through multiple ports on 10/100/1000 Mbps and 10 Gbps Ethernet interfaces at up to full line rate
- High performance stream-to-disk hardware captures, stores, archives and recalls up to 60 TBs of live traffic
- Multiple hardware platforms – from portable to rack mounted – suit different deployment needs
- Atlas Option facilitates the mining of application, network and data link data by drilling down from areas of interest in order to view related trending charts, flow data, and packet data
- Best-in-class real-time Video/VoIP metrics and troubleshooting for enterprise networks. Integrated with ClearSight Analyzer for content playback, deep packet analysis and decodes

Model	Description
CSN/NTM-EX3	Network Time Machine Express, four 1GB SFP interfaces, 1 TB storage
CSN/NTM-ST3-4TB	Network Time Machine Standard3, four 1GB SFP interfaces, 4 TB storage, SATA RAID 0
CSN/NTM-ST3-8TB	Network Time Machine Standard3, four 1GB SFP interfaces, 8 TB storage, SATA RAID 0
CSN/NTM-ST3-8TB-FUG	Network Time Machine Standard3, 8 TB SATA RAID 0 (field upgrade)
CSN/NTM-ST3-EA	Network Time Machine Standard3, four 1GB SFP interfaces, 20 TB storage, SATA RAID 5
CSN/NTM-ST3-EA-UGD	Additional Network Time Machine Standard external storage array, 20 TB SATA RAID 5 (factory installed)
CSN/NTM-ST3-EA-FUG	Additional Network Time Machine Standard external storage array, 20 TB SATA RAID 5 (field upgrade)
CSN/NTM-PR3-S5	Network Time Machine Premium3, two 10GB XFP interfaces, 6.1 TB storage SAS RAID 5
CSN/NTM-PR3-S5-UGD	Additional Network Time Machine Premium3 external storage array, 6.1 TB SAS RAID 5 (factory installed)
CSN/NTM-PR3-S5-FUG	Additional Network Time Machine Premium3 external storage array, 6.1 TB SAS RAID 5 (field upgrade)
CSN/NTM-PO1-1G	Network Time Machine Portable1, four 1GB SFP interfaces, 1.2 TB storage
CSN/NTM-PO2-1G	Network Time Machine Portable2, four 1GB SFP interfaces, 1.7 TB storage
CSN/NTM-PO2-10G	Network Time Machine Portable2, two 10GB XFP interfaces, 1.7 TB storage
Options	
CSN/NTM-ATLAS	Network Time Machine Atlas Software Module
CSN/NTM-REMSW-CD	Network Time Machine Remote Viewer License for NTM Portable with CD
CSN/ACC-9022	10G Singlemode XFP, quantity 2
CSN/ACC-9032	10G Multimode XFP, quantity 2
CSN/ACC-9050	1G Singlemode SFP Transciever Kit,, quantity 2
CSN/ACC-9051	1G Multimode SFP Transceiver Kit., quantity 2
CSN/ACC-9055	1G Singlemode SFP Transceiver Kit, quantity 2
FTAP-9-50	10/100/1000BASET SFP, copper, quantity 2

Corporate

Headquartered in Everett, Washington, Fluke Networks has over 600 employees worldwide and distributes its products in more than 50 countries and are used by 98 of the Fortune 100 companies

Fluke Networks provides installation, maintenance, testing and support solutions at every point of customer impact. Our tools and sophisticated service assurance solutions allow telecom providers to improve service on a lasting basis and cut costs at the same time.

Fluke Networks provides unique vision into your enterprise or telecommunications network, helping you meet today's technology challenges and anticipate tomorrow's by providing more ways to look at the network, developing solutions that give customers views into their networks they can't get anywhere else and delivering the right solution for the right user.

▶▶ **Communication Service Providers**

Fluke Networks helps many of the world's leading communications service providers to build, manage and maintain their networks for high efficiency and performance. Our tools and systems are in service around the world, assisting with broadband network conditioning, facility maintenance and repair, troubleshooting, and the installation and maintenance for voice, video and data services.

Why are we different?

Only Fluke Networks brings together the deployment, maintenance, installation and operating support system solutions that deliver the business-transforming results you need to address the challenges ahead. We work closely with communication service providers to reduce operating expenses and maximize workforce productivity so they take maximum advantage of their investment in new technologies and services.

Solutions

Conditioning for Broadband Deployment

Fluke Networks is the world leader in network conditioning. Our NetDSL systems play a pivotal role in accelerating circuit qualification for ADSL and VDSL service deployment at the world's leading telecommunications service companies. And NetDSL ties that testing information back to central data systems, making it easy to market and deliver these new services to customers.

Access Network Maintenance

Our CopperPro and NetTech products help field technicians to troubleshoot and locate access network problems quickly and easily. Whether it's isolating cable problems, eliminating noise problems, or stress testing circuits prior to service installation, Fluke Networks has powerful tools to help technicians get to the solution fast.

Service Installation

Look at the tool belt of any technician and you are sure to find Fluke Networks installation tools and test sets. From market-leading dial sets to durable punchdown tools, Fluke Networks delivers professional quality to assure technicians can get the job done right...the first time.

Operating Support Systems

Fluke Networks is unique in its ability to tie together and automate the far-flung elements of today's access network. Solutions include automated job planning, trouble handling, records verification and centralized testing.

▶▶ **Product Offerings**

- DaVaR and NetDSL
- CopperPro Loop Testers/Analyzers
- CopperPro Series II VDSL/ADSL2 Golden Modems
- NetTech xDSL Field Verification
- Telephone Test Sets

- Punchdown Tools
- TDRs
- Toners/Probes
- Automated Trouble Handling
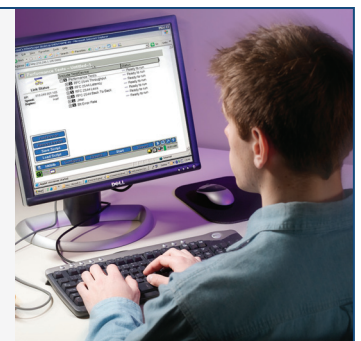
▶▶ Fluke Networks Gold Support

Our Gold Support Program ensures a better return on your investment by lowering your cost of ownership. You'll minimize downtime with a loaner or exchange equipment and unlimited 24x7 telephone technical assistance. You'll get repairs and software/firmware upgrades at no charge – now and for as long as your membership is valid.

Ask your local distributor for a Gold support quote.

Software and Firmware Upgrades

Your product will never be out of date. You'll receive access to all software upgrades via "MyAccount" on **www.flukenetworks.com**, giving you the latest functionality and improving technical efficiency and troubleshooting. Upgrades also include Management Information Base (MIB) library updates for applicable products.

Unlimited 24x7 Technical Support

Extend the expertise of your staff. Gold support includes priority access to our world-class technical assistance center (TAC) via members-only phone numbers. Our centers in Eindhoven (Netherlands), Beijing, Washington, DC and Seattle employ a full staff of highly-trained technical experts that are on call, during weekends and through the night when most network changes are implemented, to answer complex troubleshooting questions.

Annual Calibration/Performance Verification and Factory Refresh

Gold support includes one calibration (if applicable – see your owner's manual for instructions) and factory refresh per year at no charge. You unit will be precisely calibrated using the full battery of proprietary Fluke Networks test procedures, adjusted/repaired as necessary with genuine repair parts, software and firmware updates applied, all accessories tested and replaced if defective, then cleaned and performance verified.

Accessory Replacement

Some accessory parts are essential to your Fluke Networks unit. The normal warranty on accessories is 90 days, but faulty or defective parts and accessories will be replaced free of charge during the term of your Gold Support contract (some accessories are limited to 1 set per year – see website for further details).

Repairs and Loaner Equipment

As a Gold Support member, you will receive a loaner unit – delivered via next-day services and all shipping costs covered – to keep you up an running. Out-of-warranty units will either undergo a fee-based inspection prior to receiving Gold Support or the user must wait 30 days before taking advantage of any service or repair benefit.

Unlimited Access to our Knowledge Base

You'll have an open door to valuable proprietary information we've gathered from helping customers over the years. It also includes helpful technical articles written by our experts.

Members-Only Promotions

Your membership qualifies you for "Members Only" promotions and programs. This includes product discounts, access to reconditioned equipment at special prices and other incredible values.

Training Opportunities

As a Gold Support member, you will have access to many online training materials, including on-demand webcasts via MyAccount at **www.flukenetworks.com/myaccount.** OptiView Gold Support customers may attend our 2-Day OptiView Network Troubleshooting course at no charge. See **www.flukenetworks.com/training** for more information and class schedules.

▶▶ **Professional Services and Training Opportunities**

No one understands the challenges and environments of networking professionals like Fluke Networks. That's why we've created a suite of training solutions from custom on-site training and instructor-led courses to self-guided online training and webinars to match the varying needs, work models and experience levels of each user. Visit **www.flukenetworks.com/training** for full details.

Maximize your Return On Investment

Fluke Networks professional services and training programs mean maximum flexibility while increasing your return on investment in equipment and people. From our one-day on-site training and certification program to improve installer skills in testing, certifying, and troubleshooting copper and fiber optic cabling systems to our on-site professional services engagements to assist in design and installation of our tools, or troubleshooting existing stubborn network issues, Fluke Networks professional services and training opportunities help your company get the most out of your network tools.

Consider a training course if you currently own or plan to purchase any Fluke Networks tools. These classes are scheduled around the world in key cities, or we can bring them to your location and customize them to meet your product mix and specific educational needs. We can also create a custom on-site class or electronic training tool to specifically cover the technology, features, and functionality your team needs to maintain your network.

Our classes are taught by specially qualified Fluke Networks experts, so your staff may earn continuing education credits such as BICSI and a certificate of completion, enhancing their skill set and increasing their value to your organization. Visit **www.flukenetworks.com/training** today to review specific course outlines and discover the local contact in your area.

Fluke Networks On-Site Certification Course

Fluke Networks helps you realize the full value of your installation and troubleshooting teams with industry-leading Certified Cabling Test Technician (CCTT) courses. This course help your department stay competitive in the installation and certification of high-speed structured cabling systems. Fluke Networks training staff offers expert classroom training and extensive hands-on experience with our latest products.

▶▶ **Professional Services and Training Benefits**

- Industry-leading courses
- Stay competitive
- Enhance team skill set
- Affordable pricing
- Onsite or offsite

- BICSI credits
- Certificate of completion
- Learn industry standards
- Understand inferior cabling
- Speed deployment times
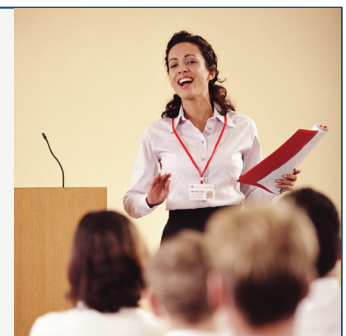
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Email: **training@flukenetworks.com**

▶▶ **For general questions, information and feedback, please visit: www.flukenetworks.com/contact**
For information on local sales offices, please visit: www.flukenetworks.com/worldwide

⏩ What's new from Fluke Networks

TS®52 PRO Test Set

- **Display** – back lit LCD and glow-in-the-the dark keypad

- **DataSafe™ Pro** – superior high-impedance monitoring, lockout and override, making you completely safe in any mode

- **DropSafe™/RainSafe™** – passes 6-metre drop test and designed for use in rainy conditions

- **DSL/POTS filtering technology** – allows technicians to clip on a live DSL line to test POTS service without downing or disrupting data service

- **Two-way, hands-free speakerphone** – for true hands-free conversation

- **Test Functions:**

  – Data indication: warns when data is present.

  – Voltage indication: troubleshooting feature to identify potential line problems

  – Current (mA) indication: verifies sufficient line current

  – Caller-ID: verifies service is functional

  – DTMF digit grabbing: isolate faulty customer prem ise equipment

LinkRunner™ Duo CE

- Link Verification of Fiber and Copper Circuits at 10/100/1000MBps – Quickly determine if the circuit is up or not.

- Performance Testing with MetroScope and other Popular Test Sets – Use as a remote device for ProVision™, RFC 2544 and other performance tests with testers from Fluke Networks, JDSU, Sunrise, Exfo, and more.

- Layer 1, 2, and 3 Loopback - Configurable loop back to filter frame type and swap MAC and/or IP addresses. Manual or DHCP IP configuration.

- Fiber Power Measurements – Make sure that the incoming signal meets requirements.

- PING Testing – Measure availability and response performance for key devices or URLs.

Your authorized Fluke Networks distributor