

## Test Equipment Catalog



CATV/RF TEST

FIBER OPTIC/FTTX TEST

VoIP/Telecom Test

NETWORK/ETHERNET TEST

ELECTRICAL/VOLTAGE TEST

SATELLITE TEST

FIBER OPTIC SPLICERS

UNDERGROUND CABLE LOCATORS

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## auestions –

## Not sure which product to use?

Call your local TVC representative. Our sales staff and technical product managers will talk you through your project, recommending the best product for your application.

Fault Locators . . . . . . . . . . . . . . . . . TE8.5

Some products presented in this catalog may not be available for world-wide sale. Please contact your local TVC representative for full details.

NOTICE: Technical specifications are direct from manufacturers. Before utilizing any product, customers should determine the suitability of the product for its intended use.

for more detailed information, visit our web site at www.tvcinc.com

Model Three™

## OUR TEST EQUIPMENT VENDORS







**CORNING** 



































## Additional TVC Service Offerings

## PRODUCT TRAINING

TVC Sales and Product Management personnel are available for product training at customer or project site locations. In addition, TVC conducts WebEx/remote training on many of our products.

## System Design and Integration

For headend and field applications, TVC can work with customers to determine the most appropriate equipment and connectivity products needed for various projects. In addition, TVC can provide on-site system integration and installation support for many applications including VoIP, VOD and Digital Transport.

## RETROFITTING

Some customers find that their unique system requirements are not met by "off-the-shelf" versions of certain products. TVC has the ability to customize certain products to meet the specific needs of its customer.

### **C**USTOM **K**ITTING

TVC works with many customers to package tools, self-installation kits for cable modems, VoIP, and HDTV related products for field technicians or construction crews. Kits can be made up of any products that TVC provides.

## **AUTOCAD ENGINEERING**

For Outside Plant and Underbridge applications, TVC has AutoCad design capability. Our engineers will work with customers to create specific mechanical or topographic oriented designs to facilitate project, application, product planning and Bill of Materials.

## FREIGHT, PACKAGING, AND LOGISTICAL SUPPORT

Our business relies on getting products to our customers in a timely, efficiently packaged and cost effective manner. TVC Freight Services continually evaluates the best methods and carriers to bring our product to our customers. In addition, customers can request packages, boxes, pallets, and truckloads to be packed, sorted and shipped to destinations in a precise manner that meets specific customer needs, including environmentally friendly solutions.

## SIGNAL LEVEL METERS

## TRILITHIC MODEL THREE™

The Model Three™ Signal Level Meter is ideal for CATV installations - featuring a wide range of tests for analog and digital channel measurements. This rugged instrument can be customized, streamlining tests and making your installations and troubleshooting more efficient.

**CATV/RF TEST** 

With the press of a single key, the meter performs a complete test of all channels in the selected user channel plan to specified limits. It can also be set to automatically perform Level, Spectrum, Tilt (Favorite), Hum, QAM, and Limit tests at programmed intervals, unattended.

- 5 MHz to 1 GHz Standard Frequency Coverage
- Full Scan, Single Channel, and Spectrum Modes
- Data Logging
- Digital Signal Measurements: Power, MER, Pre- and Post-FEC, BER (Including Deep Interleave)

P/N Descriptio

2011346010 Signal Level Meter. Range: 5 MHz to 1 GHz; Accuracy: ±50 ppm (20°C ± 5°C)

## TRILITHIC MODEL TWO

The Model Two™ signal level meter is designed to provide optimal features at a reduced cost. Amplitude measurements are fast and efficient. Carrier amplitudes are displayed individually, as a group (up to 12 "favorites"), or as a full-span display. This meter also features a single-channel spectrum mode which displays the presence of interfering beats in addition to the carrier amplitudes. The meter lets you take the direct power measurement of QAM signals, data logging, and also includes a voltmeter function.

- Verifies system performance using a complete range of measurements
- Measures analog and digital carrier levels from 5-870 MHz
- 5 to 870 MHz Spectrum Analyzer range

P/N Description

2010967003 Signal Level Meter. Range: 5 - 870 MHz; Accuracy:  $\pm$  50 ppm (20°C  $\pm$  5°C)

## TRILITHIC TR-2

The TR-2 is an economical solution ideal for your basic HFC installation needs. This simple to use meter provides fast and efficient measurements including: signal level measurement, tilt measurement to balance your system, carrier-to-noise measurements, a voltmeter function, and features an extended battery life.

Weighing less than one pound, this simple to use, rugged meter has a durable plastic case and is convenient for one-hand operation. The TR-2 is ready to use with the standard NCTA channel plan and includes a carrying strap, charger, user's manual and a spare F-type connector.

- Simple to Use
- Long Battery Life
- Cost-effective

P/N Description

2011000000 Installer's Signal Level Meter. Range: -30 to 60dBmV; Accuracy:  $\pm$  2dB (20°C  $\pm$  5°C)

## SADELCO DISPLAYMAX® 5000

The DisplayMax 5000 provides a complete test solution for today's installation workforce. The 5000 series measures analog and digital channel power as well as quality measurements such as MER, BER and C/N. Return levels are measured using a built-in DOCSIS modem, insuring sufficient headroom for reliable modem operation. Finally, shielding is verified by measuring Leakage and Ingress. All these tests from a single, low cost and easy to use field instrument. The DisplayMax 5000 is the only meter your installers need.

- Modem Return Level
- MER, BER & C/N
- Leakage & Ingress Detection
- Analog, QAM, QPSK & 8VSB
- 1000 MHz. Tuning Range Optional

P/N Description

DisplayMax 5000 Frequency Range: 5 to 872 MHz; Typical Accuracy: ± 0.5dB

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



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TR-2







CATV/RF

## CATV/RF TEST

## SIGNAL LEVEL METERS

## SADELCO DISPLAYMAX® 800 & 800CLI

The DisplayMax 800CLI is powerful enough to maintain the headend, yet simple enough for routine installation checks. With a wide range of measurement options, a technician can quickly check an individual channel, favorite channels, all channels, tilt, leakage, ingress, C/N or HUM.

Full Spectrum Display

Leakage (800CLI) & Ingress Detection

Data Recording

Auto-Calibration

Description

Without Leakage Detection, Tuning Range: 5 to 872 MHz: Typical Accuracy: ± 0.5dB DisplayMax 800 DisplayMax 800CLI With Leakage Detection, Tuning Range: 5 to 872 MHz; Typical Accuracy: ± 0.5dB

## **Sadelco**



## SENCORE

## SENCORE SLM 1475

The SLM 1475 All-Format RF Signal Analyzer enables today's RF professional to test and analyze a variety of RF signals, including terrestrial (off-air), satellite, and cable signals. The SLM 1475 also provides decoded video and program streams for all in-the-clear channels. The SLM 1475 can effortlessly identify interference issues and perform off-air antenna alignment.

- Accurately measures analog and digital signal levels
- Full-color, decoded ATSC video for quick visual quality assurance
- Digital quality measurements including MER. Noise Margin, Pre/Post BER and Average Peak Level

P/N	Description
SLM 1475	All Format RF Signal Analyzer. Digital Modulations Types: QPSK - 8PSK - 8VSB - QAN
	Frequency Range: TV: 4 to 1010 MHz (FM band included); Sat: 930-2150 MHz



**SLM 1475** 

## SENCORE SLM 1473

The SLM 1473 Analog and Digital Signal Analyzer is the ideal portable Signal Level Meter for cable installers. Customers can be assured of quality installation by using the SLM 1473 to verify signal strength, HUM, audio and video signal levels. With these capabilities, technicians will decrease re-checking, reduce repair time, and eliminate callbacks.

- Demodulated QAM signals, ANNEX A-B-C, QAM 64-128-256, downstream DOCSIS
- Interchangeable input connector: "F", "IEC", or "BNC" or ("N" optional)
- QAM digital measurements: C/N, BER, MER, SNR

P/N Description

SLM 1473 Analog and Digital Signal Analyzer. Frequency Band: 5-870 MHz

## SEBBA

**SLM 1473** 

## SENCORE SLM 1456CM

The SLM 1456CM provides everything installers and operators are looking for - analog and digital measurements, including Pre/Post BER, MER, spectral display, DOCSIS 2.0 network testing, and leakage and ingress testing capabilities - all at an affordable price. The SLM 1456CM is ideal for CATV installation and troubleshooting.

- Use the SLM 1456CM for upstream modern measurements. Ping the head-end and retrieve MAC and IP information
- Digital measurement capabilities including: Average Power, Pre/Post BER, MER, and Constellation for QAM

SLM 1456CM Signal Level Analyzer with DOCSIS. Frequency Range: 5-1000 MHz; Digital Measurement for 8 VSB, QAM 16-32-64-256 (Annex A,B,C); DOCSIS 2.0 Compliant Device



## RETURN PATH TEST

## TRILITHIC RSVP2™

The Guardian RSVP2™ Reverse Path Tester ensures return quality where it is most critical – the subscriber installation. Most return path problems begin in the subscriber's home. Errors in installation, defective cabling, or incorrectly installed or loose hardware can all disrupt return path communications or allow ingress to enter the cable system.

CATV/RF TEST

- Verifies operation headroom for critical digital services
- Quick, simple, automated testing with Pass/Fail results
- Small, rugged, lightweight and very simple to use

Description

2010814010 Reverse Path Tester: Transmit Level: +20 to +55dBmv: Return C/(N+I) Ratio: ≥ 35dB for ≥ 0dBmV input to SST



## SADELCO RT100

RT100 is a portable three-frequency Signal Generator that can be used for a wide variety of testing and troubleshooting applications. Used in conjunction with a Signal Level Meter, the gain or loss of any system component can be quickly measured. Multiple carriers allow testing in both the upstream and downstream paths.

- Troubleshoot High Modem Levels
- Verify All System Components
- Qualify Home Wiring

RT100 Return Path Tester. Standard Frequencies: 8 MHz (Return / Upstream); 34 MHz (Return /

Upstream): 60 MHz (Forward / Downstream)

## Sadelco



## Test Probes

## TRILITHIC I-STOP

The I-Stop Reverse Test Probe is a test accessory that you can use with most signal level meters to take bidirectional signal measurements with no risk of power damage. Just connect the probe into a distribution tap's unused KS port and a spring-loaded "stinger" connects a 20dB resistive test point circuit to the hardline

- Taps unused KS ports for bidirectional measurements
- Protects instruments from damage caused by line power
- Tracks reverse ingress to the nearest tap

Description Reverse Test Probe



## **TRILITHIC TP1-T**

The TP1-T Test Probe is the ideal troubleshooting and verification tool for sweeping Amplifiers, Line Extenders and most Fiber Nodes. Simply remove the existing attenuator pad and insert the test probe. This test probe can be used to check levels at any pad location and will allow measurement of the exact signal coming into the given location.

- Ideal Test Probe for Most Motorola, Phillips & Scientific Atlanta Amps, Line Extenders & Fiber Nodes
- Replaceable F-81 Connector
- Durable, Longer Lasting

Description Test Probe 2011108000



delivering products, knowledge, service and experience

for more detailed information, visit our web site at

CATV/RF

## CATV/RF TEST

## SIGNAL LEAKAGE

## TRILITHIC SEEKER LITE2™

The Seeker Lite2™ is a tough, convenient and flexible Leakage Test Tool. It assists in subscriber installs by verifying that leakage in the house is not great enough to contribute to the cable system's Cumulative Leakage Index (CLI). Seeker Lite<sup>2</sup> works by measuring ambient RF leakage in and around a subscriber's premises and can be used to identify and locate all RF leaks greater than 10  $\mu$ V/m.

- Numerical Measurement Display
- Sensitive. Stable Measurements
- Directional Antenna that Helps Locate Leaks

P/N Description

Leakage Detector. Frequency Range: 118.50 - 147.25 MHz; Level Range: 10 to 2000 µV/m. 2011002103

## TRILITHIC CT-2 / CT-3

When several cable systems operate in the same area, it is often difficult to determine which system is the source of a detected leak. The CT-2/CT-3™ solves this problem by tagging the system video carrier with low frequency modulation. Used as a system with Trilithic's leakage receivers, (including the Super Plus™, Seeker and Seeker Lite<sup>2™</sup>) the CT-2/CT-3 eliminates all "false alarm" triggers.

- The Solution to False Alarms
- Isolates Leaks in Over-Built Systems
- Compatible with Super Plus, Seeker and Seeker Lite<sup>2</sup>

P/N	Description
2010670001	CT-2 Headend Channel Tagger. Modulates on to one of the standard video carriers in the systems midband channel line-up
2010762000	CT-3 Headend Channel Tagger. Generates a tagged carrier at a customer-specified frequency. Used when a suitable video channel is not available

### TRILITHIC SEARCHER PLUS GT

Searcher Plus GT is the first Leakage Measurement Receiver built specifically for systems employing digital set top terminals that cannot tolerate "tagged" leakage carriers. The GT provides enhanced "false alarm" resistance and many of the features of the Super Plus without the use of a tagged leakage test signal.

- Testing installations for excessive leakage
- Walking down the source of leakage
- Near field preventative maintenance measurements

P/N	Description
2011233121	Searcher Plus GT, Frequency 121.2625
2011233127	Searcher Plus GT, Frequency 127.2625
2011233133	Searcher Plus GT, Frequency 133.2625
2011233139	Searcher Plus GT, Frequency 139.2500



Seeker Lite2"

**Searcher Plus GT** 

CT-2 / CT-3

## TRILITHIC SUPER PLUS

The Super Plus leakage receiver is designed for the new era of digital program services and overbuilt systems. Its high immunity to "false alarms" from other signal sources (even leaks from other systems) make the Super Plus the perfect instrument for identifying leaks in noisy or overbuilt areas. Because the Super Plus only responds to carriers that have been "tagged" by a CT-2 (Channel Tag) or CT-3 (Tagged Carrier Inserter), it rejects the effects of ignition noise and power line interference.

- Testing installations for excessive leakage
- Walking down the source of leakage
- Near field preventative maintenance measurements

P/	N	Description
20	11235121	Super Plus, Frequency 121.2625
20	11235127	Super Plus, Frequency 127.2625
20	11235133	Super Plus, Frequency 133.2625
20	11235139	Super Plus, Frequency 139.2500



**Super Plus** 

## **TDRs**

## TEMPO TV90

The TV90 is designed for ease-of-use. You'll spend less time operating the TDR and more time repairing faults. Simply select the cable type to be tested and the TV90 does the rest. Impedance, VoP, gain, pulse width and vertical position are automatically selected and adjusted as you scan the cable. Just move the cursor to the fault to pinpoint its location.

CATV/RF TEST

- Find location of damage in drops
- Find impedance mismatches
- Locate bad passive devices

P/N Description

CableScout TDR. Test Signal Output 1/2 sine.; Amplitude (into 75 Ohm) 6 ns pulse: 5 V TV90 -12 ns pulse: 6 V.

## TEMPO CABLESCOUT® TV220 TDR

The TV220 delivers high performance, yet is so easy to use that little or no training is required. This leading edge TDR can test more system bandwidth and expose faults that have been previously invisible to TDR's yet still an impairment to digital signals. The TV220 also introduces one-button testing.

- TDR for digital broadband coax
- Finds faults other cable testers can't
- One button testing
- Serial printer output for stored or displayed waveforms

Description

CableScout TDR. Test Signal Output 1/2 sine; Amplitude (into 75 Ohm) 4 V into 75 Ohm TV220

## TV220

## TEMPO MCTAP WAVEFORM ANALYSIS SOFTWARE FOR TV220

MCTAP is a PC software system that is used for viewing, analyzing and managing your stored waveform data. MCTAP is compatible with CableScout TV220 and Telescout 100 and 200 Fault Locators.

- TV220 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

P/N

MCTAP Waveform Analysis Software for TV220. Software System comes complete with CD ROM,

Null-modem Cable and Operations Manual



## **TRILITHIC TDR 2040**

The TDR 2040 provides installation technicians and anyone involved in the installation or maintenance of metallic cables with the capability to quickly find faults in cables from a distance of 0 to 2500 feet. Cables can be damaged during or after installation. Typically the damaged section is hidden from view behind walls, above ceilings, or buried below ground. Using time domain reflectometry technology, the TDR 2040 quickly identifies an open or short and provides the distance to the problem location.

- Measure Voltage up to 250V
- Trace Hidden Cable Runs
- Compatible With All Common Cables

Description

TDR 2040 Cable Fault Locato

## **TDR 2040**

**TRIPLETT** 

## TRIPLETT TDR CABLE FAULT FINDER

This TDR is a hand-held Digital Cable Length Meter/TDR Fault Locator designed to both measure the length of copper communications cables and distance to a fault.

- Find Cable Length or Distance to Fault from one end
- Low Cost Digital Cable Length Meter/TDR
- Built-in Tone Generator for Cable Tracing & Identification
- Simple Operation with Automatic Distance Display

Description

TDR Cable Fault Finder 3271



delivering products, knowledge, service and experienc

for more detailed information, visit our web site at

TE1.5

DigiGen

**CATV/RF** 

SENCORE

## SPECTRUM ANALYZERS



## SENCORE PSA 1505

The PSA1505 is a cost effective, high performance, portable Spectrum Analyzer. Advanced digital signal processing is utilized to provide bench top performance in a portable unit. The PSA1505 can be used for demanding applications like measuring spectral purity, and measuring specifications such as transmit power, frequency bandwidth, harmonic/ spurious response, satellite L-Band, adjacent channel power, and antenna directivity.

Description

PSA 1505 Portable Spectrum Analyzer. Frequency Range: 9 KHz ~ 3 GHz; Reference Frequency: 110 MHz



## VIDEO/MPEG TEST

## SENCORE HAMLET® MICROFLEX

The Hamlet® MicroFlex a multi-format, multi-standard hand-held waveform, vector, audio, picture Monitor and Test Signal Generator. Using a built-in 3.5" diagonal, high-quality VGA (640 x 480) TFT display, the MicroFlex shows the picture in 4:3 or 16:9 formats.

- Hand-held HD/SD SDI/Composite capable measuring and monitoring instrument
- Data and gamut analysis, time code logging of assigned errors

P/N Description

MicroFlex Test Signal Generator

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## SENCORE HAMI ET® DIGISCOPE DS9000

The DigiScope DS9000 is designed for the measurement and monitoring of all HD, SD and Composite signals. Embedded AES/EBU audio and external reference are included. The DigiScope DS9000 is 1U rack-mountable, low power device with DVI and XVGA outputs for use on external displays.

- Modular HD/SD SDI/Composite 1U rack measuring instrument
- Data and gamut analysis, time code logging of assigned errors

Description DS9000 Hamlet® DigiScope

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## Sencore Hamlet® MonitorScope MS9000

The MonitorScope MS9000 is designed for the measurement and monitoring of all HD. SD and Composite signals. The product includes an embedded AES audio external reference. The MonitorScope MS9000 is compact, low power On-Screen Display (OSD) device with a built in XVGA display.

- The first modular 3U half rack HD, SD, Composite measuring instrument
- High resolution quality 6.5" XVGA TFT display

Description

Hamlet® MonitorScope

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## SENCORE HAMLET® ADEPT™ A700WVA

The Hamlet Adept is a multiformat capable Video Monitoring Instrument with On Screen Display (OSD) which also has a built in generator. The Adept provides SD SDI; analog component; YC (S-video); and composite 625 and 525 multi-standard measurement and monitoring capability, including line select, bow tie and gamut indication.

Multi-format inputs : Composite, Component & SD SDI

P/N Description

Multiformat Capable Video Monitoring Instrument A700WVA

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details



## VIDEO/MPEG TEST

## SENCORE HAMLET® DIGIGEN COMPOSITE VIDEO AND AUDIO SIGNAL GENERATOR

DigiGen is a family of 1U rack-mountable multiformat video and audio signal generators. Members of the family include:

- DigiGen MultiGen...... HD and SD SDI and Composite Video and Audio Signal Generator
- DigiGen Axiom ...... HD SDI Video Signal Generator

The DigiGen MultiGen is a feature rich, simple to use, multi-format Video Generator for use in control rooms and facilities where racking is available. The unit includes HD SDI, SD SDI and composite video generation with embedded audio and either AES/EBU or analog audio outputs. 16 video test signals are available for each of the outputs in digital this can be 525 or 625 and in analog either NTSC or PAL, including pathological, overlayed circles, moving pattern path activity signal, CRC codes, audio group selection audio line up tones, with or without an ident and a 16 character alpha/numeric ident which is scrollable.

Description

HD and SD SDI and Composite Video and Audio Signal Generator DigiGen Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## **Tektronix**® TEKTRONIX MTM400A TRANSPORT STREAM MONITOR

The MTM400A provides a complete solution for real-time transmission monitoring of MPEG transport streams over RF. IP, and ASI interfaces. Powerful confidence monitoring capability and deep diagnostic measurements are both combined into a single integrated solution.

- FlexVuPlus™ user interface
- Hierarchical views of network, media and data information for diagnostics
- Unique dual-level alarming and seven day trending information
- Single scalable solution for real-time transmission monitoring of MPEG transport streams

Description

MTM400A Transport Stream Monitor

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details

## TEKTRONIX MTS400P PORTABLE MPEG TEST SYSTEM

The MTS400P is an MPEG/IP Analyzer that enables field based engineers with a cost-effective analyzer for installing, commissioning and maintaining H.264, IPTV and IP video based services that combines both IP network and MPEG measurements.

- Cross layer error correlation and diagnostic capability
- High performance line rate Gigabit Ethernet (GbE) IP connectivity and integrated cross layer analysis
- Wide range of DTV standards are supported
- Integrated cross layer fault analysis and logging

Description

MTS400P Portable MPEG Test System

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## TEKTRONIX MTS415P PORTABLE MPEG TEST SYSTEM

The MTS415 is an MPEG Analyzer with a wide range of interfaces and analysis capabilities that provide the necessary connectivity to diagnose problems anywhere in the cable network, whether that be transmission links (RF or IP layer) or content processing (TS or ES layer).

- Cross layer error correlation and diagnostic capability
- High performance line rate Gigabit Ethernet (GbE) IP connectivity and integrated cross layer analysis
- CaptureVu™ technology
- Integrated cross layer fault analysis and logging

Description

MTS415P Portable MPEG Test System

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.











for more detailed information, visit our web site at delivering products, knowledge, service and experience

TE1.6

CATV/RF

## Tones & Probes

## JDSU Resi-Tracer™ Probe

Resi-Tracer™ is a multi-function Signal Detector that locates standard generated tone signals as well as dial tone and speaker popping signals. Resi-Trace™ also features unique tone tracing capabilities for coax cable systems, both live and dark, and can be used for a number of special field applications.

- Traces network/Ethernet, telephone, coax, and audio cables
- Audible and visual tone location indicators
- Speaker phasing with built-in microphone pickup
- Traces unpowered or active coax cable with coil mode

P/N Description TT300 Resi-Tracer Probe



**JDSU** 

### JDSU TONE TRACER

The Tone Tracer is an ergonomic, high-sensitivity Probe for field service professionals. Used in conjunction with any analog tone generator, the Tone Tracer identifies wire and cable without having to make direct metallic contact with the conductor. The Tone Tracer can be used with a wearable headset or a standard cell phone headset.

- Ergonomic shape, balanced weight
- Volume control
- Recessed "on" switch
- Tip replacement without opening case
- Battery-low indicator

P/N Description

Tone Tracer Probe. Includes round probe tip, paddle-style probe tip, and 9-volt battery TT100



## JDSU TRACE-RITE™ TONE GENERATOR AND TONE TRACER

The Trace-Rite™ is an ergonomic, powerful, and accurate Tracer with highly sensitive signal reading capabilities for locating telco, network, and coax cable. With a built-in tone generator, two different tones, and auto-off feature, the Trace-Rite is a reliable, easy-to-use tool that allows installers to easily find wires behind walls, floors, and ceilings.

- Built-in tone generator with two different tones, LED indicator, and auto-off feature
- Audible tone location indication
- Adjustable volume control
- Self-powered amplified probe with on/off button prevents battery drain

Trace-Rite Tone Generator and Probe. Includes RJ11 to alligator clips cord set and four 6-volt TT250 button cell batteries



## JDSU TONAX™ COAX TONE GENERATOR

The field-proven Tonax™ Coax Tone Generator is optimized to tone on coaxial cable for phone and data cabling systems. The compact and rugged Tonax includes a high-power tone generator mode that enables tracing through ungrounded splitters or to equipment as well as tracing terminated or shorted coax cable. Probe mode is used for conventional tone tracing. The low-power tone generator mode supplies tone voltage and current comparable to common tone generators. The POTS simulator mode supports line voltage, line current, and dial tone functions with a talk battery performance that performs better than common tone generators.

- Tone and trace coax cable through splitters, wire shorts, and terminated cable to active components
- Built-in F-connector for coax cable
- Three tone outputs

P/N Description

TG455 Tonax coax tone generator with alligator clips

KP323 Tonax coax tone generator with alligator clips & Resi-Tracer probe in a pouch



## COAX MAPPERS

## JDSU COAX MAPPER

The Coax Mapper is a handheld Tester for CATV, security system, and other coax system installers and technicians who need to map coax installations. Used in conjunction with the included remote terminators, the Coax Mapper displays PASS, OPEN, or SHORT with just one test button on the main unit. One button also initiates a tone signal.

CATV/RF TEST

- Tests coax cable with F-connectors or BNC connectors
- Detects and displays OPEN or SHORT conditions
- Displays PASS when no failures are indicated for each remote

P/N Description

CX200 Coax Mapper Cable Tester. Includes set of four (1-4) coax cable test remotes, four F-connector iack to BNC iack adapters. F-connector plug to BNC iack adapter, and 6-volt battery



## JDSU TESTIFIER™ CABLE TESTER

The Testifier™ cable tester provides full cable test and tone generation in one unit for telecom, datacom, and cable installers and technicians. The easy-to-use Testifier features one-button operation to initiate telco, network, and coax modes for diagnostic tests and results. The main unit includes built-in RJ11 and RJ45 jacks for testing 6-wire and 8-wire twisted pair and F-connector for testing coax.

- · Displays tests for shorts, opens, miswires, reversals, and split pairs in wiremap format
- LCD with icon flags

P/N

Integrated jacks for telco and network connections. F-connector for coax

	,,,,,,,,
P/N	Description
TP350	Testifier Cable Tester with onboard cable test remote. Includes 30.48 cm (1 ft) RJ45 to alligator clips cable, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, nylon case, and 9-volt battery
KP321	Testifier Cable Tester with onboard cable test remote, 30.48 cm (1 ft) RJ45 to alligator clips cable, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, set of 20 RJ45 ID-only remotes, and case



## JDSU TestifierPRO™ Cable Tester

Description

The TestifierPRO™ Cable Tester provides telecom, datacom, and cable installers and technicians with cable test. length measurement, and hub blink functions in one unit. The easy-to-use TestifierPRO Cable Tester requires onebutton operation to initiate telco, network, and coax modes for diagnostic tests and results. The main unit includes built-in RJ11 and RJ45 jacks for testing six-wire and eight-wire twisted pair and F-connector for testing coax.

- Identifies cable termination on active ports by blinking port LED
- Measures cable length using patented cable capacitance method
- Displays single-ended test results in wiremap format for opens, shorts, and split pairs

.,	2 000 i p. 10 i
TP650	TestifierPRO Cable Tester with cable test remote. Includes 30.48 cm (1 ft) RJ45 to alligator clips
	cable, two 30.4 8cm (1 ft) patch cables with RJ45 connectors, #1 coax cable test
	remote, and pouch. Requires 9-volt battery (not included)
TP655	TestifierPRO Cable Tester with 8 cable test remotes. Includes 30.48 cm (1 ft) RJ45 to alligator
	clips cable, two 30.48 cm (1 ft) patch cables with RJ45 connectors, 30.48 cm (1 ft)
	coax cable, #1 thru #8 coax cable test remotes, and pouch. Requires 9-volt battery (not included



## TRIPLETT WIREMASTER COAX - LAN CABLE TEST SETS

The WireMaster Coax is an 8-way Cable Mapper, with built-in continuity beeper, and 120VAC line cross protection. BNC connectors on the main unit and the remotes allow the user to attach to BNC cables or outlets, and due to the variety of off-the-shelf BNC adapters, to numerous other connector families.

- 8 Remotes with BNC Connectors included
- Tests for Opens and Shorts
- AC/DC Overvoltage Warning LED
- 120VAC Line Cross Protection
- Real-time test helps identify intermittents

P/N Description

WireMaster Coax LAN Cable Test Sets 3274



delivering products, knowledge, service and experienc

for more detailed information, visit our web site at

## COAX MAPPERS

## TRIPLETT WIREMASTER MAPPER

- Includes 39 Remotes (BNC, F, RJ11/RJ45, and Alligator)
- Generates Warble signal for Wire Tracing (with optional Hound Tracer)
- Tests for Opens and Shorts
- AC/DC Overvoltage Warning LED and Beeper
- 120VAC Line Cross Protection and Warning
- Real-time test helps identify intermittents
- Power Latch Function Switch to prevent accidental turn-ons
- Maps lengths over 20,000 ft (RG-6/U, 7.4 Ohms per 1000ft)

P/N Description

3281 WireMaster Mapper. 8-Way Wire & Cable Mapping Kit



## dB Loss Meters

## TRIPLETT CABLERATER

- Measures dB Loss and Gain in Cable Distribution Systems
- Verify Installation before Cable TV Service is Connected
- Transmitter Simulates Frequency and Level of TV Channel 3
- Real Time measurement allows for checking for intermittents
- Efficient Transmitter permits hours of testing without replacing battery, plus built in battery test
- Receiver contains a blue backlit display which allows for testing in poorly lit areas

P/N Description

3279 CableRater dB Loss Meter



TRIPLETT

## RF TEST KIT

## TRILITHIC HOUSE DETECTIVE INSTALLATION KIT

The House Detective is a selection of instruments specifically designed to provide you with everything you need for basic installation, validation and service of modern cable television services. This group of instruments was selected based on years of experience supplying test equipment into the cable industry accompanied with a clear understanding of the tasks needed to certify a modern drop.

- Signal Level Meter
- Leakage Detector
- Cable Fault Locator
- One Easy-to-use Affordable Package

P/N	Description
2011042000	House Detective (includes a TR-2, Seeker Lite <sup>2</sup> and a TDR-2040)
2011042011	House Detective II (includes a Model Two, Seeker Lite <sup>2</sup> and a TDR-2040)





## **OTDRs**

## Noyes M700 Compact Single-mode OTDR

The M700 is a compact, full featured, single-mode OTDR that includes an integrated Visual Fault Locator (VFL), an Optical Power Meter (OPM) displaying up to three wavelengths simultaneously, and a large transflective touch screen display suitable for both indoor and outdoor operation.

The M700 OTDR supports Real Time, Full-Auto, and Expert (manual) modes, precision event analysis, dual-wavelength testing, rich file naming, and intuitive job set-up functionality. In addition to OTDR event analysis, Pass/Fail acceptance values can be set to alert the test operator of failing or marginal events. Using one of the Least Squares Approximation (LSA) loss methods, events may be added or deleted manually.

- 38 / 36 dB dynamic range @ 1310 / 1550 nm
- Integrated OPM and VFL (650 nm)

/N Description

M700-11-0901PR Single-mode OTDR. 1310/1550 nm; Test Port Adapters: SC, FC, and LC



## Noyes M650 Compact QUAD OTDR

The M650 is a compact, full-featured, QUAD OTDR with an integrated Visual Fault Locator (VFL, 650 nm), Optical Power Meter (OPM), and a large transflective touch screen display suitable for both indoor and outdoor operation. With short dead zone and intermediate range specifications, the M650 is ideal for Tier 2 testing of premises (building and campus) networks.

The M650 OTDR supports Full Auto, Expert (manual), and Real-Time test modes, precision event analysis, dual-wavelength testing, rich file naming, and an intuitive job setup functionality. In addition to OTDR event analysis, Pass/Fail acceptance values can be set to alert the test operator of failing or marginal events. Using one of the Least Squares Approximation (LSA) loss methods, events may be added or deleted manually.

- 22dB (MM), 26dB (SM) dynamic range
- Integrated OPM and VFL (650 nm)

P/N Description

M650 Compact QUAD OTDR

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



M650

## Noves OFL 200 Single-mode OTDR

The OFL 200 OTDR sets new standards for size, weight, ease-of-use, and value in a telco/broadband OTDR. Smaller than many optical loss test sets, the OFL 200 has the range, features, and price to make it the perfect OTDR for outside plant crews installing and maintaining optical fiber cables in broadband, metro, access, and FTTx networks. Unlike 'optical fault locators', which detect only reflective events, the OFL 200 is a true OTDR, which detects fiber backscatter as well as Fresnel reflections. Thus, the OFL 200 can locate reflective and non-reflective breaks, including those caused by crushed fibers. In addition, the OFL 200 provides an integrated 650 nm visual fault locator (VFL) for short distance troubleshooting and fiber tracing.

- 1550 or 1625 nm single-mode OTDR
- Locates reflective and non-reflective breaks

P/N	Description
OFL 200-1550	Single-mode OTDR. 1550 nm
OFL 200-1625	Single-mode OTDR, 1625 nm

Both models include SC, FC adapter caps (ST, LC available), universal AC power adapter, country-specific line cord, user's guide, and carry case.



### Noyes OFL 250 HANDHELD OTDR

The OFL 250 is a single-mode OTDR with an integrated Optical Power Meter (OPM), Laser Source (OLS), and Visual Fault Locator (VFL) in a handheld package weighing only 0.8 kg (1.7 lb). With short dead zone and mid-range dynamic range performance, the OFL 250 is ideal for testing optical fibers in service provider metro areas and FTTx networks.

The OFL 250 provides automatic and manual setup, precision event analysis, multiple-wavelength testing, a 12-hour battery life, internal data storage, and USB connectivity. OTDR and OPM test ports are equipped with tool-free adapters, which can be changed in seconds.

- Multiple-wavelength single-mode OTDR
- 1.5 m (typical) event dead zone

P/IN	Description	
OFL2-26-0910PR	Single-mode OTDR	1310/1550 nm
OFL2-26-0924PR	Single-mode OTDR	1310/1550/1625 nm



delivering products, knowledge, service and experience

for more detailed information, visit our web site at www.

## **OTDRs**

### **EXFO AXS-100 Access OTDR**

Powerful handheld units combining OTDR and Power Meter functionalities, optimized for FTTx PON certification and troubleshooting, as well as for premise network testing.

- Specifically designed for in-service PON troubleshooting
- Event dead zone as low as 0.8 m. for easy location and characterization of all events
- Multiple options, including Power Meter, Visual Fault Locator (VFL), Fiber Inspection Probe, Printer and IP testing
- Fault Finder mode, for quick identification/location of fiber breaks
- Smart software option providing Pass/Fail status at all wavelengths, as well as span loss, ORL, fiber length and macrobend locations in a single window

P/N	Descriptio	r

Access OTDR. Designed for single-mode OTDR troubleshooting; 1310/1550/1625 nm, 29/28/28dB Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## **EXFO AXS-110 ALL-FIBER OTDR**

Powerful handheld units combining OTDR and Power Meter functionalities, optimized for FTTx PON certification and troubleshooting, as well as for premise network testing.

- A high-performance OTDR solution for single-mode and/or multimode installations
- A convenient and cost-effective solution for all LAN/WAN and short-haul fiber networks
- Pass/Fail features that comply with industry standards such as TIA 568c and IEEE 802 3ah

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P/N	Description
AXS-110-SM	Single-mode OTDR. Ideal for FTTx/access and CATV testing; 1310/1550 nm, 32/30dB
AXS-110-MM	Multimode OTDR. Optimized for enterprise/premises/private network testing on both 50 and 62.5 $\mu$ m multimode fiber; 850/1300 nm, 24/25dB
AXS-110	All-Fiber OTDR. Combines single-mode and multimode capabilities for enterprise/campus/access
	networks: 850/1300/1310/1550 nm. 24/25/32/30dB

# AXS-110

## **EXFO FTB-150 COMPACT OTDR**

Small, lightweight OTDR-dedicated platform factory-configured to house any EXFO OTDR configuration. Takes EXFO's OTDR technology to the next level of user-friendliness.

- Small, lightweight OTDR-dedicated platform
- Tests up to four wavelengths
- The industry's fastest acquisition times
- Shortest dead zones available

P/N	Description
FTB-150-ACCESS	Single-mode OTDR. 1310/1550 nm, 37/35dB
FTB-150-LH	Single-mode OTDR. 1310/1550 nm, 45/43dB
FTB-150-FTTx	Multimode OTDR. 1310/1490/1550/1625 nm, 39/35/38/36dB
FTB-150-METRO Single-mode OTDR. 1310/1550/1625 nm, 42/41/41dB	
FTB-150-QUAD	Single-mode & Multimode OTDR. 850/1300/1310/1550 nm, 27/26/36/34dB
FTB-150-MM	Multimode OTDR. 850/1300 nm, 27/26dB



## EXFO FTB-200 COMPACT PLATFORM OTDR

The smaller, lighter platform built for the supertech. Combines single-mode and multimode fiber test functionalities, ideal for FTTx, metro/access and long-haul network testing. Accommodates two fieldinterchangeable modules ranging from OTDRs and loss testers to CWDM/OTDR's and Ethernet analyzers.

- New software functionalities for simpler, faster OTDR testing
- Designed for the field: lightweight and compact; resistant to shock, water, dust and common chemicals; door panels for extra port protection
- Battery-powered solution for OTDR, Ethernet and loss testing

P/N	Description
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TE2.2

Modular compact platform OTDR. 850/1300/1310/1490/1550/1625/1650 nm FTB-200

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## FIBER OPTIC/FTTx TEST

## **OTDRs**

## **EXFO FTB-7200D LAN/WAN OTDR**

Combines single-mode and multimode fiber test functionalities aimed at premise/private/enterprise network testing. Offers short dead zones, an easy-to-use software interface and controlled launch conditions for accurate measurements.

- Dynamic range of up to 36dB
  - Four wavelengths (12CD-23B model) combined with an optional visual fault locator
- 850, 1300, 1310 and 1550 nm wavelengths with respective dynamic ranges of 27, 26, 36 and 34dB
- Controlled launch conditions, for more accurate loss measurements

Description

FTB-7200D-12CD Multimode OTDR. 850  $\pm$  20/1300  $\pm$  20 nm: 27/26dB

FTB-7200D-12CD-23B Single-mode & Multimode OTDR. 1310  $\pm$  20/1550  $\pm$  20nm; 36/34dB

## GREENLEE HANDHELD SINGLE-MODE OTDR

- Compact hand held design
- Measures length and defect of coiled fiber
- Up to 35 dB dynamic range
- Large LCD display, backlit
- Fiber analysis software for data management and report generation

Description

920XC-20C-UPC-NAFC Single-mode OTDR.1310/1550 nm (± 20 nm); 35/35dB



## **CORNING OV-1000 OTDR**

The OV-1000 provides testing flexibility by combining a rugged platform with field-interchangeable multimode, single-mode and advanced testing modules. Designed for testing and troubleshooting of LAN, Telco, CATV and FTTx networks, all OTDR modules can be used as continuous wave (CW) light sources. A Power Meter and Visual Fault Locator (VFL) are available as options on the mainframe and the OV-1000 utilizes Windows® CE technology which allows for a fast power-up time of four seconds from sleep mode.

Description

1000BK-SD37	Basic Kits include OV-1000 Mainframe, power supply, battery, appropriate OTDR port adapters, CD
	with OTSView PC emulation software and manual, cleaning supplies and hard-shell transit case
1000DK-SD37	Deluxe Kits include OV-1000 Mainframe with power meter and VFL, power supply, battery,
	appropriate OTDR port adapters, CD with OTSView PC emulation software and manual, OTS
	Batch PC batch processing software, cleaning supplies and hardshell transit case



**CORNING** 

## **OTDR Accessories**

## Noves OTDR FIBER RINGS

Fiber Rings of 150m of fiber are ideal for premises fiber network test applications. Fiber Rings of 500m and 1km of single-mode fiber are designed for broadband, long-haul fiber network test applications

P/N	Descriptio

Standard, One Fiber - Single-mode; 150 m (492 ft) where y1 & y2 are user selected FR1-SM-150- y1- y2 connector types

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## CORNING OTDR LAUNCH FIBER, ACCESS JUMPER

Corning Cable Systems offers two OTDR launch cable solutions. Used for connecting between the OTDR and system-under-test, these solutions can also be used on the far end of the system-under-test as a receive fiber. Both options come with a wide variety of configurations depending on customer application. The first solution is a small, portable test bag (PTB) that offers a low cost, compact launch cable and can be placed inside most OTDR transit cases. The PTB also offers a carabineer for attaching to an equipment rack, belt loop, bucket lift or messenger. The second option is a portable test fiber case (PTF), which offers a ruggedized, easy-to-configure solution. The rugged construction allows for shipment of the launch cable separate from the OTDR case.



Part numbers vary to customers needs. Please check with your TVC representative or www.tvcinc.com for details.

TE2.3

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FIBER OPTIC/FTT)

## FIBER OPTIC/FTTx TEST

## OPTICAL POWER METERS

### Noves OPM1 Optical Power Meter

The OPM1 Optical Power Meter may be used to measure optical power (dBm) in Premises, Telco, or Broadband fiber optic networks. When used with an LED or Laser light source, the OPM1 can also measure the attenuation (insertion loss) of multimode or single-mode cables.

- 850, 1300, 1310, 1550 nm
- Premises (Ge) and broadband (InGaAs) models
- Displays optical power (dBm)

P/N Description

OPM 1-2C Calibrated at 850, 1300, 1310, and 1550 nm for testing LAN, Ethernet, FDDI, Token Ring, and

single-mode fiber systems such as Telco, WAN, and CATV

OPM 1-3C Operates at 850, 1300, 1310, and 1550 nm but offers greater temperature stability needed for

outside plant 1550 nm testing as with WAN, CATV, and Telco systems

## Noyes OPM4 Optical Power Meter

The OPM4 is designed for measuring optical power in Premises, Telco, or Broadband networks and for performing insertion loss measurements on multimode or single-mode fiber optic links.

- Multimode or single-mode applications
- Wave ID (auto identification & switching)
- Multiple-wavelength testing

P/N Description

Optical Power Meter, 2 x AA batteries, protective rubber boot, user's guide, and carry case

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## Noves OPM5 OPTICAL POWER METER

The OPM5 is a full-featured OPM is designed for measuring optical power in Premises, Telco, or Broadband networks and for performing insertion loss measurements on multimode or single-mode fiber optic links.

- Multimode or single-mode applications
- Wave ID (auto identification & switching)
- 270Hz, 330Hz, 1kHz, 2kHz Tone detection

Description

OPM5 Optical Power Meter, 2 x AA batteries, AC, protective rubber boot, USB cable, Windows®

compatible software and user's quide. OPM5 user's quide, and carry case Multiple configurations available. Please check with your TVC representative or www.tycinc.com for details.

## NOYES ADAPTER CAPS, TIPS, & TEST PORT ADAPTERS

These standard thread-on adapter caps are used to mate non-angled and angled single-fiber and dual-fiber connectors to optical power meter ports on our OPM, T400, T500B, and ORL 3B series test sets or OFS 300-200C and VS 300 microscopes.

P/N	Description
8800-00-0200	FC Adapter Cap
8800-00-0209	SC Adapter Cap
8800-00-0214	2.5mm Universal
8800-00-0224	1 25mm Universal

## Noves CSM1-3 Contractor Series Optical Power Meter

The CSM1 is a palm-sized, cost-effective unit is designed for measuring optical power in Premises, Telco, or Broadband fiber optic networks and for performing insertion loss measurements on multimode or single-mode fiber optic links. Weighing only 0.4 lb, this power meter is ideal for field use.

- Multimode or single-mode applications
- 270, 330, 1000, 2000 Hz Tone Detection
- Power measurements in dBm or  $\mu$ W: insertion loss in dB

P/N Description

Optical Power Meter, 2.5 mm Universal adapter cap, 2 x AA batteries, user's guide, and carry case Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.









## OPTICAL POWER METERS

### WILCOM FTTx Power Meters

The FM Series Fiber Meters are hand-held, compact, lightweight, and easy-to-use battery powered optical

FIBER OPTIC/FTTx TEST

The optical input port on the FM power meters accept any Wilcom thread-on style adapter caps. Adapter caps are required for operation and must be ordered separately.

FM8515B Optical Power Meter - FTTx. Application: Wavelengths 850, 1310, 1550;

Power Range is +5dBm to -70dBm

FM8515C Optical Power Meter - FTTx. Application: Wavelengths 850, 1310, 1550;

Power range is +23dBm to -50dBm



Wilcom



## **EXFO FPM-300 Network Testing - Optical**

The FPM-300 automatically uses the proper calibration parameters when combined with the FLS-300 or FOT-300

- Highly accurate unit offering 10 calibrated wavelengths and reference values
- No offset nulling required, reducing measurement time
- Three-year warranty and recommended calibration interval, for dramatically reduced cost of ownership

P/N	Description

Power Meter - Ge detector, Power Range: +10 to -60dBm FPM-302

Power Meter - High-power Ge detector. Power Range: +26 to -50dBm Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## **EXFO FPM-600 Network Testing - Optical**

The FPM-600 offers a memory capacity of 1000 data items and converter software, for easy data management and USB transfer to a PC. Comes with more than 40 calibrated wavelengths.

- Adapts to all network types: LAN, CWDM, DWDM, etc.
- Error-free, time-saving features: automatic wavelength recognition, and no offset nulling required
- High accuracy, wide dynamic range and high power measurement capability (up to 26 dBm)
- User-configurable Pass/Fail thresholds with LED indicator

P/N Description

Power Meter - Ge detector. Power Range: +10 to -70dBm FPM-602

Power Meter - High-power Ge detector. Power Range: +26 to -55dBm Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## **EXFO PPM-350C - PON Power Meter**

The PPM-350C is optimized for FTTx service activation and maintenance, this highly versatile handheld unit is available in one-port and two-port pass-through configurations.

- Full OLT-to-ONT communication while testing
- · Simultaneous measurement and display of voice, data and video signals on BPON, EPON and GPON architectures
- Ten user-definable threshold sets, as well as pass/fail analysis features
- Filtered measurements, providing distinct power values for each signal (1310 nm, 1490 nm and 1550 nm)

PON power meter, two ports, BPON, extended range EPON, GPON

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## G GREENLEE

FPM-600

## GREENLEE 560XL FIBER OPTIC POWER METER

Description

- Easy to use three buttons control all functions. Loss measurements in (dB) power measurements in (dBm). 0.01dB measurement resolution
- Multi-wavelength storage stores and recalls reference power levels for faster, more efficient measurements
- Snap on connector interface adapts to FC, SC and ST connectors
- Long battery life approx. 100 hours continuous operation

User selectable auto shut-off

560XL Fiber Optic Power Meter. 850/1300/1310/1550 nm; +3dBm to -60dBm resolution







## **OPTICAL LASER SOURCES**

## Noves OLS2 - Dual Laser Light Source with Wave ID

The OLS2-Dual is a handheld, rugged Laser Source designed for performing insertion loss measurements on single-mode fiber optic links when used with an Optical Power Meter. When paired with an Optical Fiber Identifier, the OLS2-Dual may be used for fiber identification.

The OLS2-Dual features 1310 nm and 1550 nm Laser output from a single output port and offers several modes of operation. Each wavelength may be transmitted individually at CW or with user selectable modulated tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS2-Dual supports transmitting pairs of wavelengths in an alternating pattern.

- Dual wavelengths from a single port
- Dual or single Wave ID. CW. Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone

P/N	Description

OLS2-Dual Optical Light Source, protective rubber boot, 2 x AA batteries, user's guide, and carry case

## Noyes OLS4 - Integrated LED and Laser Light Source with Wave ID

The OLS4 is a handheld, rugged, integrated two-port LED and Laser Light Source designed for performing insertion loss measurements on multimode or single-mode fiber optic links when used with an Optical Power Meter. When paired with an Optical Fiber Identifier, the OLS4 may be used for fiber identification.

The OLS4 features 850/1300 nm LED output from a multimode output port and 1310/1550 nm Laser output from a single-mode output port. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone (SM output). Also, each wavelength may be transmitted with Wave ID.

- Integrated LED and Laser Light Source
- Dual wavelengths from a single port
- Dual or single Wave ID, CW, Tone (SM output)

### P/N Description

OLS4 Optical Light Source, protective rubber boot, 2 x AA batteries, mandrels, user's guide, and carry case

## Noyes OLS7-FTTH & OLS7-3 Triple Wavelength Laser Sources

The OLS7-FTTH (1310/1490/1550nm) and OLS7-3 (1310/1550/1625nm) are handheld, rugged Laser sources designed for performing insertion loss measurements on single-mode fiber optic links when used with an Optical Power Meter. When paired with an Optical Fiber Identifier, both models may be used for fiber identification.

The OLS7-FTTH and OLS7-3 feature a triple wavelength Laser output from a single port and are easy to operate. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID.

- Triple wavelengths from a single port
- Triple, dual, or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone

P/N	Description
OLS7-FTTH	Optical Light Source, protective rubber boot, 2 x AA batteries, user's guide, and carry case
OLS7-3	Optical Light Source, protective rubber boot, 2 x AA batteries, user's guide, and carry case

## NOVES CSS1-SM CONTRACTOR SERIES DUAL LASER LIGHT SOURCE

The CSS1-SM is a palm-sized, cost-effective dual Laser source designed for performing insertion loss measurements on single-mode fiber optic links when used with an Optical Power Meter. When paired with an Optical Fiber Identifier, the CSS1-SM may be used for fiber identification.

The CSS1-SM features 1310 nm and 1550 nm Laser output from a single output port and is easy to operate. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. The output port is equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned.

Dual wavelengths from a single port

Description

- CW and modulated Tone
- 270, 330, 1000, 2000 Hz Tone

CSS1 SM Optical Light Source 2 x AA batteries user's guide, and earny age		·
C331-3IVI Optical Light Source 2 x AA batteries, user's guide, and carry cas	CSS1-SM	-SM Optical Light Source 2 x AA batteries, user's guide, and carry case









## **OPTICAL LASER SOURCES**

## **EXFO FLS-300 - LIGHT SOURCE**

A versatile, complete light source available with up to three single-mode wavelengths on a single port, or four wavelengths (two multimode and two single-mode) on two ports.

- · Multifunctional light source: up to three single-mode wavelengths on a single port, or four wavelengths (two multimode, and two single-mode) on two ports
- Three-year warranty and recommended calibration interval
- Can transmit with a wavelength-identification digital encrypted protocol so that any compatible unit can automatically use the proper calibration parameters

P/N	Description
LS-300	Light Source

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

# FLS-600

FIBER OPTIC/FTTx

## **EXFO FLS-600 - LIGHT SOURCE**

Offers Laser, LED and VCSEL models, as well as various wavelength options. Helps you save time by building a list of your "favorite" wavelengths, providing for a faster sweep when testing.

- Up to three single-mode wavelengths (1310, 1550, and 1490 or 1625 nm) on a single port, or four wavelengths (850/1300 nm and 1310/1550 nm) on two ports
- Error-free, time-saving test features
- Controlled multimode launching output

P/N	Description
FLS-600	Light Source

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## GREENLEE 580XL LASER SOURCE

- 1310/1550 nm wavelengths
- Stable calibrated output
- Fixed connector interface FC, ST, SC
- Continuous wave and modulated output
- Long battery life approx. 80 hours continuous operation
- User selectable auto shut-off
- Rugged and splash-proof

P/N	Description
580XL-FC	1310/1550 nm Laser Source with FC Interface
580XL-SC	1310/1550 nm Laser Source with SC Interface
580XL-ST	1310/1550 nm Laser Source with ST Interface





### FITEL ID-L LIGHT SOURCE

The Light Source ID-L used in conjunction with our LightFinder™ Fiber Optic Identifier offers you all the right tools to make your job easier. The ID-L is a light weight, hand-held unit that features a single button control to change the output mode from CW, 270Hz, 1kHz, and 2kHz. The ID-L is battery powered and includes an auto-shutdown function.

- Operates more than 16 hours by battery (auto shutdown function)
- SC, FC, ST, DIN and DIA connectors are available
- Used in conjunction with the Fitel ID-H LightFinder™ optical identifier
- 1310 nm/1490 nm/1550 nm/1610 nm outputs
- Lightweight design for easy handling
- Removable adapter for easy cleaning

P/N	Description
ID-L	Light Source





delivering products, knowledge, service and experienc for more detailed information, visit our web site at TE2.6

## **OPTICAL TEST KITS**

## Noves SLP4-6D Single-mode Test Kit

The SLP4-6D Test Kit combines the OPM4-4D Optical Power Meter and OLS2-Dual Laser Light Source and is ideally suited for testing single-mode fiber optic networks. The OLS2-Dual features 1310 nm and 1550 nm Laser output from a single output port and offers several modes of operation. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID. When transmitting with Wave ID, the OLS2-Dual supports transmitting pairs of wavelengths in an alternating pattern.

- Wave ID (auto identification & switching)
- Dual or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone

P/N Description

SLP4-6D OLS2-Dual optical light source, OPM4-4D optical power meter, AA batteries, protective rubber

boots, adapter cap, SLP4-6D test kit user's guide, and carry case



The SLP4 triple wavelength single-mode Test Kits are available in two models. SLP4-FTTH and SLP4-7. The SLP4-FTTH and SLP4-7 model combine the OPM4-4D Optical Power Meter and either OLS7-FTTH (1310/1490/1550 nm) or OLS7-3 (1310/1550/1625 nm) Laser source respectively. The OLS7-FTTH and OLS7-3 feature a triple wavelength Laser output from a single port and are easy to operate. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone. Also, each wavelength may be transmitted with Wave ID.

- Wave ID (auto identification & switching)
- Triple, dual, or single Wave ID, CW, Tone
- 270 Hz, 330 Hz, 1 kHz, 2 kHz Tone

P/N Description

SLP4-7 OLS7-3 optical light source, OPM4-4D optical power meter, AA batteries, protective rubber boots,

adapter cap, SLP4-7 test kit user's guide, and carry case

SLP4-FTTH OLS7-FTTH optical light source. OPM4-4D optical power meter. AA batteries, protective rubber

boots, adapter cap, SLP4-FTTH test kit user's guide, and carry case

## Noves SLP5 Triple Wave Test Kits

The SLP5 triple wavelength single-mode Test Kits are available in two models. SLP5-FTTH and SLP5-7. The SLP5-FTTH and SLP5-7 model combine the OPM5-4D Optical Power Meter and either OLS7-FTTH (1310/1490/1550 nm) or OLS7-3 (1310/1550/1625 nm) LASER source respectively.

- Wave ID (auto identification & switching)
- Triple, dual, or single Wave ID, CW, Tone
- 270 Hz 330 Hz 1 kHz 2 kHz Tone

SLP5-7 OLS7-3 optical light source, OPM5-4D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, Windows® compatible software and user's quide, SLP5-7 test kit user's

guide, and carry case

SLP5-FTTH OLS7-FTTH optical light source, OPM5-4D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, Windows® compatible software and user's guide, SLP5-FTTH

test kit user's guide, and carry case

## Noyes CKSM-2 Contractor Series Multimode and Single-mode Test Kit

Combining the CSM1-2 Optical Power Meter, CSS1-MM Dual LED light source, and CSS1-SM Dual Laser source, the CKSM-2 is a cost-effective test kit designed for performing insertion loss measurements on multimode as well as single-mode fiber optic links. Weighing only 0.4 lb each, units are compact and convenient for field use.

The CSS1-MM and CSS1-SM sources feature Dual output, 850 /1300 nm LED or 1310/1550 nm Laser respectively, from a single output port. Both CSS1 models offer 2 modes of operation, continuous wave (CW) and user selectable modulated Tone.

- CW and modulated Tone
- 270, 330, 1000, and 2000 Hz Tone
- Power measurements in dBm or  $\mu$ W; insertion loss in dB

## Description

CKSM-2 CSS1-MM Dual LED source, CSS1-SM Dual Laser source, CSM1-2 optical power meter, AA batteries, 2.5 mm universal adapter cap, UCI-SC connector, 50 and 62.5 µm mandrels, user's

guide, and carry case











## Noves C880 QUAD CERTIFICATION TEST KIT

**OPTICAL TEST KITS** 

Combining two C840 Certification Testers, the C880 QUAD Certification Test Kit is designed for testing and troubleshooting both multimode and single-mode fiber links. Each tester includes an integrated Visual Fault Locator (VFL, 650 nm), both single-mode (Laser 1310/1550 nm) and multimode (LED 850/1300 nm) Optical Light Sources (OLS), and an Optical Power Meter (OPM), Each tester may be used alone as a traditional Power Meter. Light Source or Visual Fault Locator.

- Integrated OPM, OLS, and VFL (650 nm)
- 850/1300 nm LED and 1310/1550 nm Laser sources
- Dual-wavelength certification Pass/Fail
- Two fibers bi-directional and single fiber testing

Description

QUAD Certification Test Kit

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.





## JDSU ORL-55 SMART OPTICAL RETURN LOSS METER

The ORL-55 Smart Optical Return Loss Meter is a high-performance, easy-to-use instrument for field, laboratory, and production use. It combines three different functions in one field-optimized instrument, including an Optical Return Loss Meter, an Optical Power Meter, and a triple-wavelength Laser Source.

- High-precision ORL testing at 2 or 3 wavelengths (single-mode 1310, 1490, 1550, 1625 nm)
- Three instruments in one: Return Loss Meter/Power Meter/Laser Source
- TRIPLEtest function for simultaneous measurements at three wavelengths in real time
- Auto-zeroing function (patent pending) for increased measurement accuracy

P/N	Description
BN 2287/21	ORL-55 Smart Optical Return Loss Meter 1310/1550 nm
BN 2287/22	ORL-55 Smart Optical Return Loss Meter 1310/1490/1550 nm
BN 2287/23	ORL-55 Smart Optical Return Loss Meter 1310/1550/1625 nm
Multiple configurations a	available. Please check with your TVC representative or www.tvcinc.com for details.



## FLUKE NETWORKS SIMPLIFIBER PRO® OPTICAL POWER METER AND FIBER TEST KITS

Simplifiber Pro is an improved Fiber Test Set that simplifies and shortens the front-line testing process by:

- Reducing the multiple steps and using a simultaneous dual-wavelength testing feature to measure the range of power levels in just half the time
- Allowing for a non-touch solution to check for a live fiber without having to plug into ports
- Enabling a network technician to do time-consuming procedures that normally require a team

SimpliFiber® Pro Optical Power Meter and Fiber Test Kits provide you with all the tools you need to help you verify proper installation and maintain fiber-optic cabling systems. Available in kits or a la carte, these tools are simple and effective and provide you with the capability to measure loss and power levels, locate faults and polarity issues, and inspect connector end-faces

/N	Description
TK2000	Basic Verification Kit (Single-mode) - Includes SimpliFiber Pro Power Meter, 1310/1550 single-mode source (SC port), and carrying case
TK1450	Complete Fiber Verification Kit: Includes SimpliFiber Pro Power Meter, 850/1300 and 1310/1500 sources (SC port), two (2) FindFiber Remote ID sources, FT500 FiberViewer Video Microscope, VisiFault VFL, LC and ST adapters, NFC-KIT-BOX cleaning equipment, and carrying case
TK1000	Basic Verification Kit (Multimode): Includes SimpliFiber Pro Power Meter, 850/1300 multimode source (SC port), and carrying case
TK1300	Full-Featured Verification Kit with FiberViewer: Includes SimpliFiber Pro Power Meter, 850/1300 source (SC port), FindFiber Remote ID source, FT120 FiberViewer Optical Microscope, VisiFault VFL, LC and ST adapters, and carrying case
TK1350	Full-Featured Verification Kit with FiberInspector Mini: Includes SimpliFiber Pro Power Meter, 850/1300 source (SC port), FindFiber Remote ID source, FT500 FiberViewer Video Microscope, VisiFault VFL, LC and ST adapters, and carrying case





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**CORNING** 

OTS-600

## **OPTICAL TEST KITS**

## CORNING OTS-600 Series Light Source and Power Meter

The OTS-600 Series is ideal for optical network certification. The unit is designed for testing and troubleshooting of various telecommunication networks, with ease of use achieved using a large color LCD screen, soft-key menus and a testing wizard. The OT-600 Series models provide source and meter in one unit to improve bi-directional testing productivity and the auto wavelength switching and detection feature cuts typical testing time in half while reducing the potential for errors.

- Source and meter in one unit
- Auto wavelength switching and detection
- USB data ports

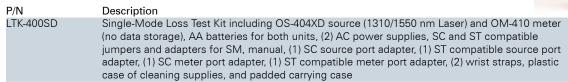
P/N	Description
OTS-600	Single-mode Test Kit with OS-404RXD (1310/1550 nm Laser) source and integrated 650 nm VFL;
	OM-610 power meter; (2) Li-lon rechargeable batteries and (2) AC power adapters; USB cable for
	data transfer; OTS-View software (1) SC source port adapter, (1) SC meter adapter,
	(1) ST compatible meter adapter, (1) LC meter adapter, (2) wrist straps, cleaning supplies, hard
	transit case and user's manual

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## CORNING LTK-400 SERIES LIGHT SOURCE AND POWER METER

The LTK-400 Series offers a complete, cost-effective solution for link-loss testing of both multimode and single-mode systems for those users who do not require data storage capabilities. The LTK offers unparalleled performance by combining a source that has one of the highest output powers in the industry with a meter that has 10 calibrated wavelengths. The units can be powered by standard AA alkaline batteries, or by the supplied AC power adapters.

- Rugged handheld design that can withstand the harshest testing environments
- Excellent cost-effective solution for testing fiber optic systems when data storage is not required
- Both the source and meter have field-interchangeable port adapters



LTK-400

### EXFO AXS-200/350 OPTICAL LOSS TEST SET

Features a Pass/Fail LED indicator and lets you set your own thresholds for loss measurements. specifically designed for first-class ease of use.

- Clear, LED-based Pass/Fail assessment
- Straightforward step-by-step loss testing wizard for error-free, semi-automated results displayed on a high-legibility color screen
- Fiber inspection probe port to prevent dirty and damaged connector problems
- Visual fiber location capabilities for quick and easy troubleshooting
- CWDM test solution features fiber inspection probe port and optional visual fiber locator and high power detector

Description

Optical Loss Test Set; 800 to 1650 nm; 10 to -75dBm

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## GREENLEE MULTIMODE AND SINGLE-MODE FIBER OPTIC TEST SET

- Insertion loss test set for multimode and single-mode fiber
- 1310/1550nm loss measurements: 850/1300 nm loss measurements
- Connector for FC, SC, or ST
- Rugged package design

TE2.10

P/IN	Description
5890-FC	Multimode and Single-mode Fiber Optic Test Set w/FC Interface
5890-SC	Multimode and Single-mode Fiber Optic Test Set w/SC Interface
5890-ST	Multimode and Single-mode Fiber Optic Test Set w/ST Interface





## MICROSCOPES AND VIDEOSCOPES

### Noyes VS 300 View Safe Inspection Scope

The VS 300 Video Fiber Scope removes concerns for eye safety while inspecting optical fiber connectors. The design eliminates the optical path to the eye by utilizing a miniature camera and a state-of-the-art microdisplay that achieves unparalleled clarity and resolution.

FIBER OPTIC/FTTx TEST

- Video Technology
- No optical path to your eye
- 400X magnification

Description

**VS 300** Inspection Scope, 2 x AA batteries, neck strap, 2.5 mm universal adapter cap,

and user's quide

## NOYES OFS 300 OPTICAL MICROSCOPE

The OFS 300 is a versatile Optical Fiber Scope with precision 200X magnification. This handheld and rugged scope is used for inspection of optical fiber connectors for scratches, dirt, or other problems normally associated with poor transmission performance.

- Laser safety filter installed
- Precision 200X zoom
- Universal adapter interface

P/N Description

Inspection Scope, 2 x AA batteries, neck strap, 2.5 mm universal adapter cap, user's guide OFS 300



## LIGHTEL VIEWCONN PLUS

ViewConn Plus enables inspection of both male and female connectors at the flip of a switch. You can even clean the patchcord connector right on the ViewConn.

- Eye-safe video viewing
- Ruggedized cover for field use
- Inspect male and female connectors

Description

ViewConn Plus Includes: ViewConn with CleanConn (CC-1), Tip for 2.5 mm PC connectors, Tip for 1.25 mm PC connectors, 4 x AA battery set, 6V DC power adapter, USB2.0 mini-B cable, CD for USB

video driver & display/capture software, Handset Probe, Tip for SC/PC in bulkhead adapters,

AA battery charger, Spare CC-1, Ruggedized cover

## LIGHTEL VC6-OPM POWER METER

- View readings on large ViewConn display screen
- Power range -60 to +10dBm
- Resolution 0.01dB
- Wavelengths 850,1300, 1310, 1490, 1550, 1625 nm
- Store readings and download later by USB interface

Description Power Meter



ViewConn Plus

## **EXFO FIP-400 FIBER INSPECTION PROBE**

Highly versatile probe to detect dirty/damaged connectors with unparalleled precision.

- Easy back-panel connector inspection
- Truly rugged and lightweight solution for the field
- Image-capture capability for report documentation

FIP-400 Fiber Inspection Probe. Standard accessories include Video inspection probe (single or dual magnification); FC-SC tip for bulkheads; U25M universal patchcord tip for 2.5 mm ferrules; Plastic case divided into various compartments for tips

Multiple configurations and adapter tips available. Please check with your TVC representative or www.tvcinc.com for details



TE2.11

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## MICROSCOPES AND VIDEOSCOPES

## JDSU FBE-S Access Kits

FBE-S Series kits are designed for the field installer who primarily encounters the more common applications in today's fiber optic networks. These kits include a FBE Series probe hardwired to a handheld video display. FBE Series probes utilize their own inspection tips (FBET Series), which will support the more common connector configurations

P/N	Description
FBE-SM1	Probe Kit. Includes 200x FBE Probe Hardwired to HD3 Display; Tips for Inspecting SC and LC Bulkheads (Female) and Patch Cords (Male); Soft Case
FBE-SM2	Probe Kit. Includes 400x FBE Probe Hardwired to HD3 Display; Tips for Inspecting SC and LC Bulkheads (Female) and Patch Cords (Male); Soft Case
FBE-SM5	Probe Kit. Includes. 400x FBE Probe Hardwired to HD3 Display with Integrated Patch Cord Inspection Module; Tips for Inspecting SC and LC Bulkheads (Female); Adapters for Inspecting SC and LC Patch Cords (Male): Hard-Sided Carrying Case



## JDSU FM-C SERIES FIBER MICROSCOPES

The FM-C200 is a ruggedized field scope with magnification of 200x and coaxial illumination. It comes with a universal 2.5mm adapter for inspecting FC, SC and ST connectors.

The FM-C400 is a ruggedized field scope with magnification of 400x and coaxial illumination. It comes with a universal 2.5mm adapter for inspecting FC, SC and ST connectors.

P/N	Description
FM-C200	C-Series Fiber Microscope 200x Coaxial Illumination, 2.5 mm Adapter
FM-C400	C-Series Fiber Microscope 400x Coaxial Illumination, 2.5 mm Adapter



## JDSU FM-DI SERIES FIBER MICROSCOPE

The FM-DI100 is a dual illumination 100x Microscope. It uses a pair of white LED's to provide both coaxial and oblique illumination. This lighting technique facilitates detecting fine scratches and precisely determining their cor the

The

oblique illumination. This lighting technique facilitates detecting fine scratches and precisely determining their location relative to the core. The Microscope includes a universal 2.5mm adapter for inspecting FC, SC and ST connectors. The DI Series accepts FMAE Series adapters, but can be configured to accept FMA adapters with the use of a coupler.	FM-DI	

1

iversal 2.5mm adapter for inspecting FC, SC and ST but can be configured to accept FMA adapters with	<b>Charlen</b>
es a pair of white LED's to provide both coaxial and	THE N
ecting fine scratches and precisely determining their iversal 2.5mm adapter for inspecting FC, SC and ST	FM-DI
but can be configured to accept FMA adapters with	100

### DI-Series Fiber Microscope 100x, Dual Illumination, 2.5 mm Adapter FM-DI100 DI-Series Fiber Microscope 200x, Dual Illumination, 2.5 mm Adapter FM-DI200

## JDSU FM-L Series Fiber Microscope

The FM-L-series Microscopes use oblique illumination to provide users with a clear view of surface debris and core condition. It is available in 100, 160, and 200X magnification models that use energy-efficient light emitting diode (LED) illumination to provide 100,000+ hours of lamp life. The FM-L microscope uses FMA-series adapters that let users inspect various connector types. Also, its durability, ergonomic design, optical performance, and ease-of-use make it the optical instrument of choice for viewing fiber terminations in sensitive installations.

- Rugged, ergonomic design for field use
- LED illumination for 100,000+ hour life
- Oblique illumination for superior view of fiber end face cleanliness and core condition

L-Series Fiber Microscope 200x Oblique Illumination, 2.5 mm Adapter FM-L200



## MICROSCOPES AND VIDEOSCOPES

## JDSU HP3-60-P4 FIBER INSPECTION & TEST SYSTEM

The JDSU HP3-60-P4 (with integrated patch cord microscope) inspection and test system combines fiber inspection and optical power measurement into a single seamless handheld device. The result is a significant increase in workflow efficiency and a decrease in total inspection and test time.

The HP3-60-P4 system, derived from the popular HD3 series, provides high-quality image resolution in a compact, portable design. The integrated power meter offers quick, easy, and convenient field measurement of optical power and attenuation. Easy push-button operation makes the device simple and straightforward, while the inspect-test process establishes optimal workflow practices.

- Inspects both sides of fiber interconnect, and accurately tests and measures optical power with one device
- Integrated functions and features eliminate switching between multiple devices
- Input for FBP series probe microscope and a dedicated patch cord microscope (PCM) let users quickly and easily inspect both sides fiber interconnects

P/N	Description
FIT-HP3-60	Handheld display with integrated Power Meter
FIT-HP3-60-P4	Handheld display with integrated Power Meter and 400X patch cord microscope
FIT-S105	KIT: Dual-mag (200/400X) fiber inspection probe microscope and tips, handheld display with integrated power meter and 400X PCM, carrying case
FIT-S105-C	KIT: Dual-mag (200/400X) fiber inspection probe microscope and tips, handheld display with integrated power meter and 400X PCM, cleaning materials, carrying case





## CORNING

### CORNING SINGLE-FIBER AND MULTIFIBER CONNECTOR CLEANING KITS

The Single-Fiber and Multifiber Connector Cleaning Kits are designed for effective cleaning and visual inspection of fiber optic connector end-faces in LAN, central office and outside plant environments, whether fully accessible or through an adapter. Whether performing a 'dry' clean, 'wet' clean or a combination of the two, each kit offers all the products recommended for cleaning connectors. Since electrostatic discharge (ESD) is a concern during a 'dry' clean, these kits contain cleaners specifically formulated to dissipate static when the end-face is pulled across a cleaner surface or a stick is inserted into an adapter. To facilitate end-face inspection prior to mating, as recommended, a 200x microscope is included in the deluxe kits.

P/N	Description
TKT-CLEAN-SFC-M	Deluxe Kits contain recommended products to effectively clean and inspect 2.5 mm and 1.25 mm single-fiber connector
TKT-CLEAN-MFC-M	Deluxe Kits contain recommended products to effectively clean and inspect multi-fiber connectors such as MT-RJ and MTP® Connectors



TKT-CLEAN-MFC-M

## - safety first -

## The Basic Rules For Safe And Efficient Testing

Thorough connector/adapter care and cleaning is where accurate testing starts, as dirt or damage can lead to erroneous test results, poor transmission and even permanent harm to the link, especially in the case of high-power transmission. So before performing a connection, ensure that connectors/ adapters are clean and exempt of any defect.

- Always turn off any laser source before inspecting or cleaning connectors, components or bulkheads. Invisible radiation can seriously damage your eyesight.
- Always wear the appropriate safety glasses whenever required in the work environment.
- Always keep a protective cap on unused connectors, and store unused protective caps in sealed container, to prevent contamination.
- Always use appropriate optical cleaning tools.
- Never use alcohol, solvent or wet cleaning without a way to ensure that it does not leave a residue on the endface, as such a residue can harm the equipment.
- Never reuse any tissue, swab or cleaning reel. Always discard used tissues and swabs properly.
- **Never** pull or twist any fiber or test jumper.

Source: Compliments of EXFO

for more detailed information, visit our web site at delivering products, knowledge, service and experienc

## **OPTICAL FIBER IDENTIFIERS**

### Noyes OFI OPTICAL FIBER IDENTIFIERS

The OFI 200D and OFI 400 Optical Fiber Identifiers are rugged, handheld, and easy-to-use fiber optic test instruments designed to detect optical signals transmitted through a single-mode fiber without disrupting traffic. During installation, maintenance, rerouting, or restoration; it is often necessary to isolate a specific fiber. By simply clamping an Optical Fiber Identifier onto a gently bent fiber, the unit will indicate if there is [No Signal], [Tone], or [Traffic] and identify signal direction.

- Rugged, handheld, lightweight
- Accepts 250  $\mu$ m, 900  $\mu$ m coated fiber, 3 mm jacketed fiber cable, and ribbon fiber
- No head swapping or adjustments

E/IN	Description
OFI 200D	Fiber Identifier. Includes User's guide and carry case
OFI 400	Fiber Identifier with relative core optical power display. Includes User's guide and carry case

# NOYES AFL Telecommunications OFI 200D OFI 400

## WILCOM OPTICAL FIBER IDENTIFIERS

Wilcom's Optical Fiber Identifiers are ruggedized and easy to use non-intrusive probes for installation and maintenance of fiber optic systems. These units are used by technicians to detect live and dark fibers, the direction of the traffic, relative core power and test tones. The units comes with 3 field easy to change adapter heads for jacketed, coated or ribbon fiber; optional 2 mm and 1.6 mm adapter heads are also available. Can be used for both single-mode and multimode. These units utilize local detection technology (non-destructive macro-bend detection); the need to open the fiber at the splice point for identification and interrupting services are eliminated. These units are a must have for any technician that is installing, maintaining, rerouting or restoring a fiber optic system.

P/N	Description
F6121A	Basic OFI w/tone and lock
F6222	Advance OFI w/digital display
F6222C	CATV OFI w/digital display
F6225	Extended Range OFI



## EXFO LFD-300 - Live Fiber Identifier/Tone Generator & TG-300 FiberFinder

Pinpoints a specific live fiber without having to disconnect it and without having to guess. The end result: no more network outages caused by inadequate fiber detection/identification, and a minimized need to access the network, helping prevent errors.

- Induces minimal loss: ≤ 1dB for any fiber and at any wavelength
- Locates a particular dark fiber using tone recognition (270 Hz, 1kHz, 2 kHz)
- Measures the power transmitted on the fiber

P/N	Description
LFD-300	Live Fiber Identifier
TG-300	Tone Generator
TK-FF	FiberFinder kit, including one TG-300, one LFD-300 and a soft carrying bag



## CORNING CHECKPOINT™ PLUS FIBER IDENTIFIER

The CheckPoint™ Plus Fiber Identifier uses non-destructive, local detection technology to ensure fiber integrity and provide reliable identification. It safely clips onto fibers in midspan to detect the presence of a signal without interrupting traffic with LEDs indicating the type of signal and transmission direction. The integral Power Meter simultaneously displays the relative core power, allowing isolation and measurement of faults and in-line components such as splitters, splices and connectors.

- Passive detection of traffic
- Supports multiple sizes
- 850 nm 1700 nm range

P/N Description

CheckPoint Plus Fiber Identifier with integral meter. Includes leather carrying pouch, operating instructions and

3 interchangeble adapters (FI-30418, FI-30419, FI-30420)

## CORNING



CheckPoint™ Plus

## OPTICAL FIBER IDENTIFIERS

## FITEL LIGHTFINDER™ ID-H/R FIBER OPTIC IDENTIFIER

The LightFinder™ ID-H/R Fiber Optic Identifier is a lightweight, handheld, easy-to-use tool to safely and effectively identify the transmission direction, fiber path, and relative core power on live optical fibers. The LightFinder™ Fiber Optic Identifier uses the super-low insertion loss local detection method of macro-bending. This allows for detection of the optical signals during installation and maintenance without disconnecting the fiber or interrupting the traffic signal.

FIBER OPTIC/FTTx TEST

- Easy to use hand-held installation and maintenance tool
- Lightweight design for handheld use
- Carrying case attaches easily to belt or tool pouch (included)

P/N Description

ID-H/R LightFinder™ Fiber Optic Identifier



## VISIBLE FAULT LOCATORS

## GREENLEE VISUAL FAULT FINDER 170XL

- Finds breaks to 3km
- Blinking output mode increases viewing contrast
- Easy-to-use quick interface fits all 2.5 mm connector interfaces (FC, SC, ST)
- 1.0mW output power

P/N Description
170XL Visual Fault Finder



## Noyes HILITE AND VFI2 VISUAL FAULT IDENTIFIERS

The HiLite and VFI2 are compact and powerful visible red laser sources designed to troubleshoot faults on fiber optic cables. Light generated by these units will escape from sharp bends and breaks in jacketed or bare fibers, as well as poorly mated connectors. They enable technicians to quickly identify faults in fiber optic jumper cables, distribution frames, patch panels, and splice trays.

- Visible red laser source, 650 nm
- High power, 1.0 mW
- Compact size

P/N	Description

VFI2 VFI2 unit, instruction card, and carrying case
HiLite HiLite unit, instruction card, and carrying case



## WILCOM F6230A VISUAL FAULT LOCATOR

The F6230A pocket Visual Fault Locator is an ideal tool for locating tight bends, bad connectors, and testing of continuity of fiber optic spans and patch cords. The unit comes with a universal connector which can connect to any 2.5 mm ferrule; an optional adapter for 1.25 mm ferrule is also available. Can be used for both single-mode and multimode. It is a must have item for every fiber optic technician.

P/N Description F6230A Visual Fault Locator



## EXFO FLS-240 POCKET PAL - VISUAL FAULT LOCATOR

Straightforward solution for identifying breaks, bends, faulty connectors or splices, as well as other causes of signal loss.

- Detects faults over distances of up to 5 km
- Bright red laser at 635 nm
- Pulsed and CW operation for up to 50 hours (typical)
- Universal connector for 2.5 or 1.25 mm ferrule

P/N Description
FLS-240 Pocket Pal Visual Fault Locator; 635 nm

FLS-230A Visual Fault Locator: 650 nm

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



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TE2.14

## FIBER OPTIC/FTTx TEST

## VISIBLE FAULT LOCATORS

## CORNING VFL-350 VISUAL FAULT LOCATOR

The VFL-350 Visual Fault Locator is a compact pen design fault locator used to check single-mode and multimode optical fiber cables and components for faults or to locate individual fibers in a bundle. By transmitting a bright beam of red light into a fiber, breaks or improper terminations can be seen as a glowing red light. This device fits all 2.5 mm connector ferrules and is ideal for field installation of UniCam® MT-RJ and LC Connectors containing the continuity test set (CTS) feature. There is an optional 1.25 mm adapter for the LC connectors. The VFL-350 operates on two AAA batteries and emits laser light of 635 nm (Laser Class 2 in accordance with IEC 825-2) with an output power less than 1.0mW. The robust and compact metal housing makes the device suitable for daily on-site use.

	us as	
-	_	

**CORNING** 

VFL-350

VFL-350 Visual Fault Locator, Includes dust cap, universal 2.5 mm adapter, 2 AAA batteries and carrying case

## FLUKE VISIFAULT VISUAL FAULT LOCATOR

The VisiFault™ Visual Fault Locator (VFL) can diagnose and repair simple fiber link problems. The laser-powered VisiFault locates fibers, verifies continuity and polarity, and helps find breaks in cables, connectors and splices. Continuous and flashing modes make for easier identification. Compatible with 2.5 mm and 1.25 mm connectors for easy connection. Ruggedly constructed for demanding field-testing. Long battery life for hours of use

- Locates faults including tight bends, breaks and bad connectors
- Accelerates end-to-end fiber checks
- Easily verifies polarity and identifies fibers

Description

VisiFault Visual Fault Locator with 2.5 mm universal adapter



## JDSU VISUAL FAULT LOCATOR

- Locate bends, breaks, or damages in fiber-optic cable
- Continuous or flashing illumination
- Class 2 Laser with 1.0 mW for 7km for single-mode and 5km for multimode
- Equipped with standard 2.5 mm interface for SC, ST, and FC connectors

24a.pp. a standard 210	
P/N	Description
FFL-100	Visual Fault Locator, Ruggedized - Includes 2.5 mm adapter
FFL-050	Visual Fault Locator, Pocket Size
FFL-U12	1.25 mm adapter for FFL-100
FFL-050-U25	1.25 mm adapter for FFL-050

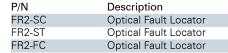


## Wilcom

## WILCOM FR2 FIBER RANGER FAULT LOCATOR

**OPTICAL FAULT LOCATORS** 

The FR2 Fiber Ranger Fault Locator is a ruggedized, light weight and easy to use Optical Fault Locator for both single-mode and multimode applications. It is designed with a reflective technology that allows you to pinpoint optical faults in the connectors, end to fiber, and clean breaks within 20 kilometers. This unit has been designed with the user in mind with easy to use features. It is a must have for testing applications in Wide Area Networks (WAN), telecommunications span of 20 kilometers, fiber to the curb, and installation and maintenance of both single-mode and multimode fiber optic systems.





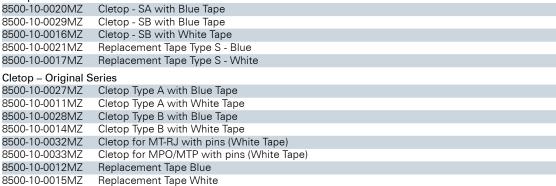
## FIBER OPTIC CLEANING SUPPLIES

## NOYES CLETOP CASSETTE CLEANER SERIES

The Cletop Connector Cleaner is a rugged palm-sized cleaner that offers exceptional performance with a proven track record. The choice of many leading manufacturers and telecom carries worldwide for nearly 20 years - Cletop is a name you can rely on.

- Cletop Series Original version (proven reliability)
- Cletop S Series Second generation cleaner offering the same Cletop cleaning pe replacement

t tape cartridge and ergonomic design that works equally well for left or right handed operators	300 (0)
Description	610
	8500-10-0017MZ
Clatara CA critic Diva Tara	





NOYES

8500-10-0016MZ

8500-10-0011MZ

### Noyes One-Click Cleaner

P/N

Cletop - S Series

The One-Click Cleaner is an easy-to-use option for cleaning connectors in adapters. Simply insert the One-Click Cleaner into an adapter and push until an audible "click" is heard. The One-Click Cleaner uses the mechanical push action to advance an optical grade cleaning tape while the cleaning tip is rotated to ensure the fiber end-face is effectively, but gently, cleaned.

- Cleans both APC and UPC connectors
- Ergonomic, comfortable design with single action cleaning
- Precise mechanical action delivers consistent cleaning results

P/N	Description
8500-05-0001MZ	Cleans SC, ST, and FC connectors in adapters and exposed 2.5mm ferrules
8500-05-0002MZ	Cleans LC and MU connectors in adapters and exposed 1.25mm ferrules

## JDSU FCR-001 CLEANCHEK CONNECTOR CLEANER

The FCR-001 CleanCheck™ Connector Cleaner is a simple solution for cleaning male fiber optic connector end-faces. CleanCheck™ is highly effective in completely removing all types of debris, dust particles, oil and grease from fiber surfaces, and eliminates the need for many other cleaning alternatives such as solvents, optical wipes, swabs or compressed gases.

P/N	Description
FCR-001	CleanChek Connector Cleaner
FCR-002	Box of 6 Replacement Reels for CleanChek





## FTTx/IP Triple-Play Test

## EXFO AXS-200/650 IP TRIPLE-PLAY TEST SET

Offers a quick, yet thorough method for deploying triple-play services - IP-based data, VoIP and IPTV - facilitated by Pass/Fail-driven automated tests.

- Simple, affordable residential IP triple-play testing with Pass/Fail indication
- IPTV and VoIP service assurance using a comprehensive range of QoS metrics
- Feature-rich, but cost-effective: Ethernet 10/100 termination and Ethernet 10/100 pass through with triple-play QoS measurements

P/N	Description
TK-AXS-650	IP Triple-Play Test Set

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.





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## WDM/OPTICAL SPECTRUM ANALYZERS

## EXFO FTB-5240S - OPTICAL SPECTRUM ANALYZER

High-resolution, high-precision optical spectrum analyzer (OSA) that covers your DWDM applications and all channel spacings, from 50 GHz DWDM to CWDM.

- Truly portable spectral characterization for DWDM network commissioning
- In-band OSNR measurement for 40 Gbit/s and ROADM deployments
- Automated channel discovery feature for easy setup and measurement
- Over 90dB dynamic range per scan

P/N Description

FTB-5240S Optical Spectrum Analyzer; 1250 to 1650 nm; 18 to -75dBm Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

### FTB-5240S

## JDSU OCC-55 SMART OPTICAL CWDM CHANNEL CHECKER

The OCC-55 is an innovative selective Power Meter for CWDM applications. The OCC-55 is a low-cost alternative solution to optical spectrum analyzers. It scans CWDM systems and automatically records all channel key measurements including wavelength, frequency and related power level.

- Measure up to 18 CWDM wavelengths specified by ITU-T G.694.2 standards
- Report generation with OFS-355 SMART Optical Reporting Software

P/N Description

BN 2277/40 OCC-55 CWDM Channel Checker

## JDSU OCC-56 SMART OPTICAL DWDM CHANNEL CHECKER

The OCC-56 SMART Optical DWDM Channel Checker is an innovative selective Power Meter for DWDM applications. The OCC-56 is a low-cost alternative solution to optical spectrum analyzers (OSA) and automatically scans power levels for channels defined in the ITU-T grid.

- Supports C-band and L-band applications
- Low-cost alternative to an OSA

P/N Description

BN 2277/41 OCC-56 C (C-band) CWDM Channel Checker BN 2277/42 OCC-56 L (L-band) CWDM Channel Checker



## DISPERSION ANALYZERS

## EXFO FTB-5700 CD/PMD - SINGLE-ENDED DISPERSION ANALYZER

Combines CD and PMD measurement into a highly automated, high-efficiency, single-ended test solution

- Single-ended PMD and CD measurements
- Complete dispersion analysis with a single module, a single connector and a one-step test setup
- Unparalleled software user-friendliness: all automated
- Testing range: up to 140km

P/N Description

FTB-5700 Single-Ended Dispersion Analyzer; 1475 to 1626 nm

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## FIBRE CHANNEL TESTERS

## EXFO FTB-8525/8535 PACKET BLAZER - FIBRE CHANNEL AND ETHERNET TEST MODULES

Deliver FC-0, FC-1 and FC-2 logical layer Fibre Channel testing for services delivered via transport protocols such as DWDM, SONET/SDH and dark fiber.

- 1x, 2x, 4x and 10x full-line-rate Fibre Channel traffic generation and BER testing
- FC-0, FC-1 and FC-2 logical layer configuration for Fibre Channel port definition, testing and performance analysis
- Round-trip latency measurement and buffer-to-buffer credit estimation
- Ethernet service performance validation through RFC 2544, BER testing and multistream generation and analysis

P/N Description

TE2.18

FTB-85xx Fibre Channel and Ethernet Test Modules

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## Inside Wire Testers

## TEMPO SIDEKICK V.O.C.

The Sidekick V.O.C. is the test set to troubleshoot twisted pair applications. This lightweight, hand-held meter quickly and accurately uncovers intermittent troubles that other test sets can't detect.

- Identifies defective inside wiring and jacks
- Identifies shorts, opens, crosses and grounds
- Measures resistance, AC/DC volts and pair balance

P/N Description 1143-5000 Sidekick V.O.C

## TEMPO SIDEKICK® PLUS

The Sidekick® Plus Advanced Cable Maintenance Test Set is a multifunction test tool that will improve any technician's testing and troubleshooting capabilities on twisted pair.

- Determines the stressed noise susceptibility of dry and working pairs
- Complete metering of voltage, current and resistance on copper cables
- Patented stress balance test
- Measurement of distance to opens

P/N Description
1155-5000 Sidekick® Plus Test Set

## TEMPO SIDEKICK T&N DELUXE TEL/COM FIELD TESTER

The Sidekick T&N combines the functions of the Sidekick 7B plus the features of transmission and noise testing. The result is an even more versatile test set that identifies frequently missed faults as well as tests and qualifies the transmission quality of POTS lines. The additional features include:

- Loop Current testing
- Circuit Loss testing
- Metallic Noise testing
- Power influence testing
- Load Coil detection

P/N Description 1137-5002 Sidekick T&N



**Tempo** 

## how to

Quick Overview on How to Use the Tempo Sidekick VOC on a New Install to Verify that there are no Inside Wiring Problems

- 1. Interview the customer on how his /her phones have been working.
- 2. Connect the red and black (ring and tip) connectors of the Sidekick to the pair of the inside wires to be tested. Connect the green connector to a ground source.
- 3. Do the AC test to confirm that there is no AC present tip to ring (T-R), ring to ground (R-G) and ring to ground (R-G).
- 4. Remove the ILEC/eMTA from the loop, perform a DC test to verify that there is no DC.
- 5. Move the green connector to another wire or another pair in the inside wire.
- 6. Rotate dial to Stress Test. Verify stress test reference ground. Final reading should be less than 20dBrnC.
- 7. Switch dial to Leakage Test and wait 15 seconds, reverse polarity, wait 15 more seconds, reverse polarity again and wait 15 more seconds. The needle should be near infinity. Do this for each of T-R, R-G and T-G.

From the time you begin with the AC test to completion should take less than 10 minutes.

Source: Compliments of Tempo

## JDSU TestifierPRO™ Cable Tester

The TestifierPRO™ Cable Tester provides telecom, datacom, and cable installers and technicians with cable test, length measurement, and hub blink functions in one unit. The easy-to-use TestifierPRO Cable Tester requires one-button operation to initiate telco, network, and coax modes for diagnostic tests and results. The main unit includes built-in RJ11 and RJ45 jacks for testing six-wire and eight-wire twisted pair and F-connector for testing coax.

- Identifies cable termination on active ports by blinking port LED
- Measures cable length using patented cable capacitance method
- Displays single-ended test results in wiremap format for opens, shorts, and split pairs

P/N

Description

TP650

TestifierPRO Cable Tester with cable test remote. Includes 30.48cm (1 ft) RJ45 to alligator clips cable (TP40), two 30.48 cm (1 ft) patch cables with RJ45 connectors (TP55), #1 coax cable test remote (TP65), and pouch. Requires 9-volt battery (not included)

TP655

TestifierPRO Cable Tester with 8 cable test remotes. Includes 30.48 cm (1 ft) RJ45 to alligator

clips cable (TP40), two 30.48 cm (1 ft) patch cables with RJ45 connectors (TP55), 30.48 cm (1 ft) coax cable (TG30), #1 coax cable test remote (TP65), and pouch. Requires 9-volt battery (not included)



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## INSIDE WIRE TESTERS

## JDSU

## JDSU TRI-PORTER™ PREMISES WIRING TESTER FOR VOICE, DATA & VIDEO

The Tri-Porter™ Premises Wiring Tester enables a full range of premises cabling tests with a single tool. It provides full diagnostic capability for network, telephone, and video systems with wiring qualification and fault diagnosis, cable tracing, location identification, and presence of service detection. Tri-Porter consists of a main unit and cable test remote/probe that enables technicians to test, troubleshoot, and qualify telco, network, and coax cable systems.

- Voice Telephony Testing including advanced function butt set
- Data Testing Ethernet Networks including port discovery and ping
- Video RF Detection and Testing including signal level measurement and TDR
- All service wire mapping

/N	Description
√T600	Network Qualification and Testing Tool



## TRIPLETT

## TRIPLETT MODEL 8455 TELCO TESTER

- Compact, Reliable, Industry Standard
- Checks Line Shorts, Opens and Multiple Ringers
- Measures DC Voltages and Resistance
- Ranges: Points 0-100; DC Volts 0-100
- Polarity-Reversing Switch
- R ÷ 10 Switch
- Reverse Switch for Line Checks

P/N	Description	
3072	Model 8455-L1 (w/ 79-619 leads & case)	
3073	Model 8455-L2 (tester only)	
3121	Model 8455-I 1 (w/ 79-662, 79-668 leads & case)	



## TRIPLETT LINE-BUG 4

- Tests standard telephone jacks and LAN jacks for connection to telephone system
- Has both RJ-11 and RJ-45 style plugs
- 4 Tri-color (Red/Green/Amber) LEDs indicate Current, Polarity, & Ringing / AC Voltage on each line
- Tests Single Line, 2 Line, 3 Line, or 4 Line jacks to USOC (telephone) standard
- Tests LAN lines and jacks (RJ-45) wired to 568A/B standard for telephone line current
- RJ-45 test plug is selectable via front panel switch for USOC (telephone) or 568 (LAN) connection

P/N	Description

Phone / LAN Line Tester

## TRIPLETT WIREMASTER XR-5 - LAN CABLE TEST SETS

- Tests 5 Types of Cables RJ-45, RJ-11, BNC, 1394, USB
- Simple One Button Test
- Ergonomic, Portable Handheld Design
- Tests Installed Wiring or Patch Cables Remote Attaches to Main Unit
- 600 ft test distance (RJ-45 / RJ-11 / BNC)
- Description 5 Cable Tester





## **BUTT SFTS**

The TS25D Test Set features data lockout and lockout override, making you completely safe in talk or monitor mode. Includes DSL/POTS filtering technology and a built-in analog tone generator. The Talk Battery function provides voltage to carry voice conversation on non-powered pairs. Also includes caller ID and call-waiting caller ID function. Large LCD makes the intuitive 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

Fluke Networks TS®25D Test Set

Tone generator for wire identification

P/N	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

## FLUKE NETWORKS TS®22 TEST SET SERIES

The TS22 Test Set Series offers an unbeatable combination of reliability, durability and expanded utility. The unique built-in amplified speaker provides three audio levels for hands free listening and use with automated voice-response systems. The TS22A offers a two-way speakerphone. Store up to nine, 18 digit telephone numbers in speed dial.

- TS®22 Test Set has an amplified speaker for hands-free monitoring
- TS®22A Test Set has a two-way speakerphone for true hands-free conversation
- DropSafe™ reliability passes 20 foot drop test
- RainSafe protection in severe weather conditions

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P/N	Description	
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	
22800HI9	TS22 test set, hearing impaired with ABN	
22801001	TS22A test set with piercing pin clips	
22801004	TS22A test set with 346A plug	
22801007	TS22A test set with ground start cord	
22801009	TS22A test set with ABN	

## FLUKE NETWORKS TS®30 TEST SFT

The TS30 Test Set features the latest in case design. 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<sup>™</sup> operation in Monitor mode
- DropSafe™ reliability passes 20 foot drop test
- RainSafe™ protection in severe weather conditions
- Mute switch

P/N	Description
30800009	TS30 test set with ABN
30800001	TS30 test set with piercing pin clips

## FLUKE NETWORKS TS®19 TEST SET

The TS19 test set combines all essential test set features in one set. This test set was specifically designed for inhouse 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

P/N	Description
19800009	TS19 test set with ABN
19800003	TS19 test set with banana jacks to alligator clip





delivering products, knowledge, service and experienc

for more detailed information, visit our web site at

VoIP/TELECOM

LB220

LB66

**JDSU** 

## **BUTT SFTS**

## TEMPO TELEPHONE TEST SET

The PE961 Test Set features our DigAlert over-voltage alarm and lock-out function to eliminate the danger of damaging or knocking out digital service lines. It also provides full ADSL compatibility.

- Features DigAlert over-voltage alarm and lock-out function to eliminate the danger of damaging or knocking out digital service lines
- The PE961 provides full ADSL compatibility
- Ten-number speed dial memory (32 digits each)
- Last number redial

P/N	Description
DEOC1	Talak Cak milika Timo

Test Set with Two-way Hands Free and DigAlert PE961

## TEMPO TELE-MATE™ PRO TELEPHONE TEST SET

The Tele-Mate Pro Telephone Test Set will help you deal with the increasing complexity of telecom installation

- Complete telephone set with ringer
- Phone to phone intercom
- Caller ID with name display

P/N Description

PE830 Tele-Mate™ Pro Telephone Test Set

## TEMPO TELE-MATE COMMUNICATIONS TEST SET

Designed for communications wiring installation and repair to guickly verify the quality of a new installation.

- Headset for hands-free operation
- Rugged design for demanding use
- · Compact design and durable belt clip make it easy to carry

P/N Description

Tele-Mate Communication Test Set PE810



**Tempo** 



## JDSU LIL' BUTTIE BUTT-IN TELEPHONE TEST SET

The Lil' Buttie™ Telephone Test Set is designed for use by datacom, telecom, and cable installers and technicians. The compact test set is small enough to wear on a belt or fit in a pocket and features a shape that is comfortable to

Additional standard features of the Lil' Buttie include electronic ringer, microphone mute, continuous polarity indication for talk or monitor, PBX pause button, redial memory, and others. This telephone test set is the choice for technicians worldwide

- Amplified line monitor for volume levels comparable to off-hook
- Tone and pulse dialing
- Battery-powered Monitor mode

P/N	Description
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I B110 Lil' Buttie Telephone Test Set with angled bed-of-nails cord set. Includes 1.22 m (4 ft) RJ11 to angled bed-of-nails cord set, headset with boom microphone, metal belt clip, and 9-volt battery

LB110-BT Lil' Buttie Telephone Test Set with rubber boot and angled bed-of-nails cord set. Includes protective rubber boot, 1.22m (4 ft) RJ11 to angled bed-of-nails cord set, headset

with boom microphone, metal belt clip, and 9-volt battery



## **BUTT SFTS**

## JDSU LIL' BUTTIE PRO BUTT-IN TELEPHONE TEST SET

The Lil' Buttie PRO™ Telephone Test Set is designed for use by datacom, telecom, and cable installers and technicians. The compact test set is small enough to wear on a belt or fit in a pocket and features a shape that is comfortable to hold. The LCD shows on-hook voltage, off-hook current, and polarity as well as caller ID, call waiting caller ID, number dialed, setup, stored numbers, battery condition, and other information.

- Detects and displays caller ID and call waiting caller ID
- Scrolling list of stored numbers
- Alphanumeric LCD with icon flags

P/N	Description
LB220	Lil' Buttie PRO Telephone Test Set. Includes 1.22m (4 ft) RJ11 to angled bed-of-nails cord set
	(LB35), headset with boom microphone, and 9-volt battery

LB220-BT Lil' Buttie PRO Telephone Test Set with protective boot. Includes protective boot, 1.22m (4 ft) RJ11 to angled bed-of-nails cord set, headset with boom microphone, and 9-volt battery

## JDSU LIL' BUTTIE™ RANGER BUTT-IN TELEPHONE TEST SET

The Lil' Buttie Ranger™ Telephone Test Set is an advanced, DSL-safe telephone test set for use by datacom, telecom, and cable installers and repair technicians. The compact test set is small enough to wear on a belt or fit in a pocket and features a shape that is comfortable to hold. The LCD display shows on-hook voltage, off-hook current, and polarity as well as caller ID, call waiting caller ID, number dialed, setup, scrolling list of stored numbers, battery condition, and other information.

- Provides DSL-safe operation
- Views and stores digits as dial-out is in progress
- Identifies inbound and outbound lines

P/N	Description
LB255	Lil' Buttie Ranger Telephone Test Set. Includes 1.22m (4 ft) RJ11 to angled bed-of-nails
	cord set (LB35), headset with boom microphone, nylon pouch, and 9-volt battery
LB255-BT	Lil' Buttie Ranger Telephone Test Set with protective boot. Includes protective boot, 1.22 m (4 ft)
	RJ11 to angled bed-of-nails cord set, headset with boom microphone, nylon pouch, and 9-volt battery
LB260-BT	Lil' Buttie Ranger Telephone Test Set with hook-type belt clip and protective boot. Includes rugged
	hook-type belt clip (LB75), protective boot (LB81), 1.22m (4 ft) RJ11 to angled bed-of-nails cord
	set (LB35), headset with boom microphone (LB40B) and 9-volt battery

## JDSU Resi-Talker™ Butt-In Telephone Test Set

Identify POTS dial tone with an economical butt set.

- Tone and pulse dialing
- Microphone mute
- Last number redial --- 32 Digits
- Continuous line polarity indication (TALK or MONITOR)

P/N	Description
LB300	Resi-Talker Test Set with alligator clips cord set
LB64	4-Position Modular Adapter
LB66	6-Position Modular Adapter
LB68	8-Position Modular Adapter

## TRACE & TALK SETS

## JDSU TALK-N-TRACE™ COMMUNICATION AND TRACING DEVICE

Talk-N-Trace™ is a hands-free communications test set that ensures clear clean voice communication without interference or dropouts over coax cable, audio cable, speaker wire, telephone lines, and common electrical wiring Used in any wiring environment to secure point-to-point full duplex communication, Talk-N-Trace works together to trace wires simultaneously while talking and is suitable for cable length ranges of up to 1.52km (5,000 ft).

- Full duplex, hands-free, self-powered communications
- Link up to four units together for party-line use
- Full ring alert function

P/N Description		Description
	TM110	Talk-N-Trace Communication and Tracing Set. Includes two Talk-N-Trace test units, two mini
		over-the-ear headsets with boom microphone, two 1.22 m (4 ft) RJ11 to alligator clips
		cord sets, and two 60.96 cm (2 ft) banana plug to test probe cable assemblies. Requires two

9-volt batteries (not included)











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**JDSU** 

## WIRE MAPPERS

## networks. Fluke Networks MicroMapper™ Pro VDV Cable Tester

MicroMapper™ Pro is a simple VDV Cable Tester, designed to reliably and quickly test terminations and length, thus speeding installation time and reducing callbacks. MicroMapper™ simplifies every aspect of the testing and verification process.

- Simple interface displays full wiremap for twisted pair and coax connectors on large LCD screen
- Multimedia support built-in support for twisted pair and coax (F) cables with no need for adapters
- Built-in Analog toning locates and isolates wire pairs during installation

P/N Description
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VoIP/TELECON

MMP-50	MicroMapper™ Pro VDV Cable Tester, #1 Cable ID, F-type adapter, multi-language Getting
	Started Guide, batteries
MMP-KIT	Includes: MicroMapper™Pro VDV Cable Tester, Pro3000™ Tone Probe, # 1-8 Cable IDs, F-type

## Greenlee NETCAT® 100 Micro Digital VDV Wiring Tester



- TIA/EIA standard wiring pair verification
- Detects shorts, opens, reversed polarity, crossed and split pairs
- Generates three distinct, selectable digital tone patterns for cable tracing and troubleshooting

adapter, multi-language Getting Started Guide, batteries

- Tracing modes can be adjusted for high performance LAN cables
- Complete set of connector types standard (telephone, LAN and coax)
- Nested remote allows end-to-end testing of all wiring types
- Simple testing of LAN wiring and phone lines

P/N Description

NC-100 NETcat® Micro Digital Voice, Data and Video Wiring Teste

# NC-100

FLUKE

MMP-50

G GREENLEE

## GREENLEE NETCAT® 500 PRO VDV DIGITAL WIRING TROUBLESHOOTER

- Tests shielded twisted pair (STP) unshielded twisted pair (UTP) and coaxial cables
- Generate four distinct, precision tones for tracing low-loss cables like Cat 5 Identifies active network devices (PC or Hub) on 10/100 Base-T networks.
- Displays network device capabilities
- Detects shorts, opens, reversed, crossed and split pairs
- Office identification using remote ID units
- Troubleshoots and verifies a wide range of networks
- Remote jack ID and verification

P/N	Description
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NC-500 NETcat® Pro Structured Wiring Troubleshooter

NC-510 NETPro Accessory Kit with 7 Digital Testers and soft case for NC-500





## JDSU Testifier™ Cable Tester

The Testifier™ Cable Tester provides full cable test and tone generation in one unit for telecom, datacom, and cable installers and technicians. The easy-to-use Testifier features one-button operation to initiate telco, network, and coax modes for diagnostic tests and results.

- Displays tests for shorts, opens, miswires, reversals, and split pairs in wiremap format
- Integrated jacks for telco and network connections, F-connector for coax

P/N	Description

TP350 Testifier Cable Tester with onboard cable test remote. Includes 30.48 cm (1 ft) RJ45 to alligator clips cable, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, nvlon case, and 9-volt battery

KP321 Testifier Cable Tester with onboard cable test remote, 30.48 cm (1 ft) RJ45 to alligator

clips cable, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, set

of 20 RJ45 ID-only remotes, and case



## WIRE MAPPERS

## JDSU SPEAKER SEEKER™ WIREMAPPING TESTER

The Speaker Seeker™ enables one installer to quickly identify both ends of up to 20 unterminated twisted pair or coax cables at a time. The LED shows the unique number of the ID-only remote attached to the other end of each cable run. When Speaker Seeker detects a condition other than an open circuit, it powers up automatically and displays results until disconnected. The handheld unit also detects and displays short and high voltage conditions.

- Identifies up to 20 audio, coax, or security/alarm cable runs at a time
- Alligator clip and F-connector contacts

P/N	Description
TP400	Speaker Seeker with two-lead ID-only remotes. Includes set of 20 (1–20) two-lead ID-only
	remotes, 60.96 cm (2 ft) F push-on connector to alligator clips cable assembly, and 9-volt battery
TP410	Speaker Seeker with coax ID-only remotes. Includes set of 20 (1–20) coax ID-only remotes,
	60.96 cm (2 ft) F push-on connector to alligator clips cable assembly, and 9-volt battery



TP500

## JDSU LANROAMER™ CABLE TESTER

The LanRoamer™ is a Cable Tester and Tone Generator in one unit. It displays cable test results using indicator lights on the main and remote unit. LanRoamer is an easy-to-use tool for residential, datacom, telecom, and cable contractors and installers. When the unit senses a connection between the main and remote unit, the battery-saving auto-on feature initiates test results within 2 seconds. The tester automatically powers off within 5 seconds of the cable being disconnected.

- Displays cable test results on main and remote units in less than 2 seconds
- Identifies shorts, opens, miswires, reversals, and split pairs
- Auto-on initiates test when a connection is sensed between main and remote unit

P/N	Description
TDEAA	

LanRoamer Cable Tester. Includes onboard cable test remote, 30.48 cm (1 ft) patch cable with TP500 RJ45 connectors, nylon pouch, and 9-volt battery



The LanRoamerPRO™ is a Length Measurement Tool, Cable Tester, and Tone Generator in one unit. The LCD, four momentary buttons, single end testing capability, and other features make the LanRoamerPRO an easy-to-use tool for residential, datacom, telecom, and cable contractors and installers.

- Measures cable length in feet or meters
- Two-line, 16-character alphanumeric LCD with icon flags displays test results in wiremap format

• Conducts sing	gle-ended tests on snorts, splits, and opens
P/N	Description
TP600	LanRoamerPRO Cable Tester with onboard cable test remote. Includes 30.48 cm (1 ft) RJ45 to alligator clips cable, two 30.48 cm (1 ft) patch cables with RJ45 connectors, wire configuration sticker, and nylon pouch. Requires 9-volt battery (not included)
TP607	LanRoamerPRO Cable Tester Kit with 8 cable test remotes. Includes 30.48 cm (1 ft) RJ45 to alligator clips cable, RJ45 to coax F-connector adapter, two 30.48 cm (1 ft) patch cables with RJ45 connectors, wire configuration sticker, and nylon pouch. Requires 9-volt battery (not included)



## JDSU TestifierPRO™ Cable Tester

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The TestifierPRO™ Cable Tester provides telecom, datacom, and cable installers and technicians with cable test, length measurement, and hub blink functions in one unit. The easy-to-use TestifierPRO cable tester requires onebutton operation to initiate telco, network, and coax modes for diagnostic tests and results. The main unit includes built-in RJ11 and RJ45 jacks for testing six-wire and eight-wire twisted pair and F-connector for testing coax.

- Identifies cable termination on active ports by blinking port LED
- Measures cable length using patented cable capacitance method
- Displays single-ended test results in wiremap format for opens, shorts, and split pairs

P/IN	Description
TP650	TestifierPRO Cable Tester with cable test remote. Includes 30.48 cm (1 ft) RJ45 to alligator clips
	cable, two 30.48 cm (1 ft) patch cables with RJ45 connectors, #1 coax cable test remote, and
	pouch. Requires 9-volt battery (not included)
TP655	TestifierPRO Cable Tester with 8 cable test remotes. Includes 30.48 cm (1 ft) RJ45 to alligator
	clips cable, two 30.48 cm (1 ft) patch cables with RJ45 connectors, 30.48 cm (1 ft) coax cable,
	#1 coax cable test remote (TP65), and pouch, Requires 9-volt battery (not included)



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TE3.6

Tempo

## WIRE MAPPERS

## PALADIN LAN PRONAVIGATOR™ TESTER

Test data & telephone cable for proper pairing for EIA/TIA-568A & B, Token Ring, 10Base-T & common Cat5, Cat5e, Cat6 configurations. Also tests continuity of 50 & 750hm coaxial cables with BNC terminations.

- One-button, simple testing (PASS/FAIL or fault find) to detect: good connections, opens, crossed wires & split pairs
- Traces wires with tone & remote lights
- Quick fault analysis

VoIP/TELECOM

P/N Description 1543 LAN ProNavigator™ Teste



Paladin Tools

## TRIPLETT WIREMASTER XR-2 - LAN CABLE TEST SETS

- Verifies point-to-point wiring of twisted pair LAN cables, telephone cables, and other types of cables that use RJ-45 & RJ-11 connectors
- New "Local Mode" allows for testing of patch cables
- Tests LAN Crossover & Telephone patch cables
- Checks continuity in cable conductors
- Generates 2 distinct warble tones usable for cable tracing
- Checks "straight-through", "reverse wired", & "crossover" patch cables
- 8 LED's identify the source and destination of each conductor

Description 3254 WireMaster XR-2





## TDR & FAULT FINDERS

## Fluke Networks TS®90 Cable Fault Finder

The TS®90 is an easy-to-use three tools in one tester -- a Fault Locator, a Cable Inventory Manager and a Toner with SmartTone™ technology. (Up to 2,500 feet). 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 2,500 feet (metric unit also available)
- Instantly measures distance to open or any fault from one end of any cable pair
- Patented SmartTone<sup>™</sup> tone generator positively identifies pair

P/N	Description
26500090	TS90 Cable Fault Finder with BNC to alligator clips
26501100	TS100/TS90 linecord, BNC to alligator clip
26501200	TS100/TS90 linecord, BNC to F(MALE)
26501300	TS100/TS90 linecord, BNC to F(FEMALE)
26501600	TS100/TS90 linecord, banana
26501700	TS100/TS90 linecord, BNC to banana to Angled Bed-of-Nails clips
26501160	TS100/TS90 pouch with belt clip



FLUKE



## **JDSU**

## JDSU TrueLength™ Cable Length Meter

The TrueLength™ Cable Length Meter measures cable length and generates tone for electrical contractors, datacom contractors and installers, and service provider technicians. It works on virtually any single or two conductor cable and helps users find and repair existing cable problems or verify new installations quickly. TrueLength includes 12 pre-set and 12 user-programmable wire gauge settings and offers four selectable tones when in tone generation mode. It measures resistance at 0 to 635 ohms and opens/capacitance 45pf to 0.082uf.

- Measures distance to opens or shorts
- Operation modes: AWG/mm/mm<sup>2</sup>, Telco, Network, Coax, Tone Generator, and Ohms
- Measures conductor length in feet or meters

P/N	Description
CLM400	TrueLength Cable Length Meter. Requires one 9-volt battery (not included)



## TONE & PROBES

## TEMPO 402K CATV TONE/PROBE KIT

Designed specifically for the CATV industry, the 402K Cable Tone Test Kit sends tone through any passive device along the cable path, such as splitters, traps and directional couplers. No more figuring out non-tagged or mistagged cable drops. The 402K is simple to use and provides fast, accurate results.

- Designed for the CATV market
- Kit allows you to tone through splitters directional couplers and traps

Description 402K CATV Tone/Probe Kit

## TEMPO 701K CLASSIC TONE AND PROBE KIT

When it comes to wire identification, there's no better tool to have than the 701K Classic Tone & Probe Kit. This popular tone & probe kit is used by technicians everywhere to identify single conductors or cables within a bundle at a cross-connect point, or at remote ends.

- Wire Identification and tracing
- 77HP Tone Generator
- 200EP Inductive Amplifier

Description

701K Classic Tone and Probe Kit



## TEMPO 801K PREMIUM TONE/PROBE KIT

Designed for more accurate wire identification, the 801K virtually eliminates power-related noise from their tone and probe operation. The 801K Premium Tone & Probe Kit offers all the features professionals are looking for. Includes the 77HP/6A High Power Tone Generator with bent nose piercing clips, increased talk battery supply and higher voltage protection and the 200FP Filter Probe for filtering out AC hum. Tone, probe and generator come housed in the rugged woven polyester 700C Dual Carry Case designed for years of dependable use. All components are also available separately.

/N	Description
/ I N	Doscription

Premium Tone and Probe Kit

## TEMPO 711K PROFESSIONAL TONE/PROBE KIT

Designed for the telecom professional, this kit is for use on single conductors, twisted pairs, coax cables and de-energized electrical wiring. The only thing missing is complexity.

The 77GX Tone Generator incorporates a host of features including microprocessor controlled circuitry for increased reliability, three selectable tone outputs for multiple line identification, two-line polarity indication for fast outlet checks and selectable power outputs for use on open or shorted pairs.

- 77GX Tone Generator
- 200GX Inductive Amplifier
- Wire Identification with selectable tracing power and tone signatures

Description

711K Professional Tone/Probe Kit



## TEMPO ATSLK 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.

- Maintain and test HUB, switch Ports and PC activity
- Includes AT8L, 200GX and 700C case
- AT8L-LAN Toner 2
- 200GX Multi-filter probe

Description AT8Lk LAN Toner Ki



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## TONE & PROBES

## JDSU Tone Generator™

VoIP/TELECOM

The compact, ergonomic Tone Generator offers several easy-to-use capabilities to conduct line tracings and ensure proper signal path quality for data and voice installations. In addition to auto-off, multiple tone function, full talk battery, and low battery indicator, the Tone Generator performs wire and cable identification without having to make direct contact with a metallic conductor. Constant tone amplitude over the life of the battery means accurate and traceable tones even at end of battery life. Two tone amplitude levels—normal and half—extend tone reach. Quickchange tips enable easier use in the field.

- Three distinctly different tones—one steady and two warbles—for multiple line testing selected from front panel
- Auto-off and no power draw in continuity mode for extended battery life
- Tone may be added in any mode—phone sets without a monitor feature can pick up tone

P/N	Description
TG101	Tone Generator with angled bed-of-nails cord set. Includes 60.96 cm (2 ft) RJ11 to angled bed-of-nails cord set, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, lanyard, and 9-volt battery
KP101	Tone Generator with angled bed-of-nails cord set and Tone Tracer Probe. Includes Tone Generator, 60.96 cm (2 ft) RJ11 to angled bed-of-nails cord set, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, Tone Tracer Probe, round and paddle-style tips, lanyard, and pouch



**JDSU** 

## JDSU TURBO-TONE™ HIGH-POWERED TONE GENERATOR

The high-power Turbo-Tone™ Tone Generator enables signal detection 20 miles away and makes hearing tone through walls and enclosures easier with multiple tones and power levels suited for network, signal wire, coax, and telephone cable applications. Four tone amplitude levels include normal and half plus, turbo normal and half, with the half amplitude unbalanced for stronger signal effect on twisted pairs. In addition, depending on test requirements. three distinctly different tones can be selected from the front panel.

- 700% more power than standard tone generators
- Unbalanced tone mode supports longer distances on UTP cables
- Constant amplitude output ensures no signal decrease as battery discharges
- Auto-off for battery conservation
- Full talk battery to power a dry line

P/N	Description
TG201	Turbo-Tone High-Power Tone Generator with angled bed-of-nails cord set. Includes 19 cm (7.5 in RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, lanyard, and pouch requires 9-volt battery (not included)
KP105	Turbo-Tone High-Power Tone Generator Kit with alligator clips set and Tone Tracer Probe. Includes Turbo-Tone High-Power Tone Generator with alligator clips set, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, Tone Tracer Probe, round and paddle-style tips, lanyard, and pouch



## JDSU LATCH-TEST™ SECURITY ALARM TONE GENERATOR

The Latch-Test™ is a Tone Generator specifically designed for testing switched loops, thereby meeting tone generator and continuity test needs for the security and alarm industry. Its combined tone generator and continuity test functions create a constant output tone generator that is seamlessly integrated with a six mode continuity tester. It delivers an accurate, easy-to-read status of a circuit's continuity in real time and can perform a latch of the occurrence of a selected event. The continuity indication can be both visual and audible (or visual only). Battery life is **T6300** maximized by low-power circuitry, regulated outputs, auto-off, and battery low indicator.

- Tone generator with two tone amplitude levels (normal and half)
- Half amplitude that is unbalanced for stronger signal on twisted pairs
- Three distinctly different tones easily selected from front panel

P/N	Description
TG300	Latch-Test Security/AlarmTone Generator. Includes molded alligator clips cord set, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, lanyard, and pouch, requires 9-volt battery (not included)
KP106	Latch-Test Security/AlarmTone Generator with Tone Tracer Probe. Includes Latch-Test Security/AlarmTone Generator with molded alligator clips cord set, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, Tone Tracer Probe, lanyard, round and paddle-style tips, and pouch



## TONE & PROBES

## JDSU Resi-Toner™ Tone Generator

The Resi-Toner™is a full-function Toner Generator that performs test functions to help determine the quality of connections on telephone systems and the performance of speakers. This easy-to-use tester is able to "power-up" installed telephone lines under actual load conditions with simulated dial tone to check connectivity and proper wiring configurations without requiring an actual service connection. Resi-Toner can test continuity and generate three different tones, including a unique tone sequence for testing speaker installations by "popping" speakers (either AC or DC coupled speaker types).

- POTS simulator for two-line phone system that checks for line voltage, line current, and dial tone
- Talk Battery mode of POTS simulator provides more current than a typical tone generator
- Multiple dial tones for each line, plus status indicators for off-hook and shorted
- Unbalanced tone for stronger signal on twisted pairs
- Speaker pop function identifies speaker connections

P/N	Description
TG400	Resi-Toner Tone Generator. Includes molded alligator clips cord set, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks (TP20), and 1.22m (4 ft) RJ11 to alligator clips set (LB31B). Requires 9-volt battery (not included)
KP309	Includes Resi-Toner Tone Generator with molded alligator clips cord set (TG400), 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11or RJ45 jacks (TP20), 1.22m (4 ft) RJ11 to alligator clips set (LB31B), Resi-Tracer Probe (TT300), and round and paddle-style tips



## JDSU TONE TRACER

The Tone Tracer is an ergonomic, high-sensitivity probe for field service professionals. Used in conjunction with any Analog Tone Generator, the Tone Tracer identifies wire and cable without having to make direct metallic contact with the conductor. The Tone Tracer can be used with a wearable headset or a standard cell phone headset.

- Ergonomic shape, balanced weight
- Volume control

P/N

- Recessed "on" switch
- Tip replacement without opening case

Description

- Battery-low indicator
- Lanyard attachment point

TT100	Tone Tracer Probe. Includes round probe tip (TT30), paddle-style probe tip (TT35), and 9-volt battery
KP101	Tone Generator with angled bed-of-nails cord set and Tone Tracer Probe. Includes Tone Tracer Probe, round and paddle-style tips, lanyard, Tone Generator, 60.96 cm (2 ft) RJ11 to angled bed-of-nails clip set, 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, and pouch



## JDSU TRACE-RITE™

The Trace-Rite™ is an ergonomic, powerful, and accurate Tracer with highly sensitive signal reading capabilities for locating telco, network, and coax cable. With a built-in Tone Generator, two different tones, and auto-off feature, the Trace-Rite is a reliable, easy-to-use tool that allows installers to easily find wires behind walls, floors, and ceilings.

- Built-in Tone Generator with two different tones, LED indicator, and auto-off feature
- Audible tone location indication
- Adjustable volume control
- Self-powered amplified probe with on/off button prevents battery drain
- Battery-low indicator with battery cap
- Changeable round-tip probe

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P/N	Description
TT250	Trace-Rite Tone Generator and Probe. Includes RJ11 to alligator clips cord set and four 6-volt button cell batteries
KP260	Trace-Rite Tone Generator and Probe with Net-Rite™ Cable Tester Kit. Includes Trace-Rite Tone Generator and Probe, RJ11 to alligator clips cord set, and Net-Rite Cable Tester with onboard cable test remote



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## **VoIP/TELECOM TEST**

## TONE & PROBES

VoIP/TELECON

## FLUKE

### FLUKE NETWORKS PRO3000 ANALOG TONE AND PROBE

The Pro3000 Tone and Probe Kit is the innovative analog tone and probe. Easily identify individual pairs with its patented SmartTone™ technology (five different tones for exact pair identification). The large powerful speaker on the probe allows you to hear through drywall, wood or other enclosures to find wires quickly and easily. Kit includes pouch

- Select solid or alternating tone options, indicated with solid or flashing LEDs
- Exclusive SmartTone™ technology can generate five separate analog tones when the pair is shorted
- 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

P/N	Description
26000900	Pro3000 Analog Tone & Probe Kit
26100900	Pro3000 Analog Probe
26200900	Pro3000 Tone Generator
26100103	Pro3000 Analog Probe Replacement Tip (two per bag)
26300000	Earpiece for Pro3000/Pro2000 Probe



## Fluke Networks IntelliTone™ Pro Toner and Probe

The IntelliTone Probe Digital and Analog Toner finds cables other toners/probes can't. Speeds cable location with advanced sensing modes. New SmartTone™ feature precisely locates individual wire pairs. Digital signal rejects noise and safely tones active networks. Powerful troubleshooting capabilities include datacom link, two line telecom service ID and twisted-pair cable wiremap.

- IntelliTone digital processing eliminates noise and false signals
- New SmartTone<sup>™</sup> analog toning precisely isolates individual wire pairs
- Locates cables safely and effectively on active networks

P/N	Description
MT-8200-60A	IntelliTone Pro 200 Kit. Includes IntelliTone Pro 200 Toner and 200 Probe, coax F connector adapter, two RJ11 and two RJ45 patch cables, test leads with alligator clips, lanyards, owners CD and quick start guide, two 9 volt batteries



## TRIPLETT FOX 2 & HOUND 3 PROBE KIT

- Fox 2 Deluxe Tone Generator
- Hound 3 Probe Inductive Tracer
- Cordura Carrying Case

P/N	Description
3399	Fox 2 & Hound 3 Probe Kit





## TRIPLETT THE FOX JR. & HOUND JR. KIT

- Pocket-Sized with Pocket Clip
- Overload Warning Beeper alerts user to potential hazards
- Connects easily with alligator clips or RJ-11 / RJ-45 combo plug
- Distinctive warble tone is adjustable over wide range
- 120VAC Line Cross Resistant
- Powered by one A23 Battery (included)

P/N	Description
3375	Fox Jr. & Hound Jr. Kit

## VERIFICATION TEST

## FLUKE NETWORKS MICROSCANNER<sup>2</sup> CABLE VERIFIER

The MicroScanner<sup>2</sup> streamlines voice/data/video cable and service testing. Revolutionary user interface displays available services (10/100/1000 Ethernet, POTS, PoE), cable length (with true TDR technology for finding distance to shorts and opens), wiremap, cable ID, and distance to fault all on one screen. Test RJ11, RJ45, and Coax with no adapters. Built-in IntelliTone digital and analog toning precisely locates virtually any cable or pair.

• Detects today's media services, including 10/100/1000 Ethernet, POTS, and PoE

P/N	Description
MS2-100	MicroScanner <sup>2</sup> Cable Verifier. Includes MicroScanner <sup>2</sup> Cable Verifier with main wiremap adapter, multi-language Getting Started Guide, user CD, batteries, and Fluke Networks carry pouch
MS2-KIT	MicroScanner <sup>2</sup> Professional Kit. Includes MicroScanner <sup>2</sup> Cable Verifier with main wiremap adapter, remote identifiers #2-7, IntelliTone Pro 200 probe, shielded twisted-pair RJ45 patch cord RJ11 patch cord, clip-set RJ45 to 8 alligator clip bare wire adapter, F Coax push on patch cord, accessory soft pouch, (2) AA alkaline batteries, (1) 9V alkaline battery, MicroScanner <sup>2</sup> Getting Started Guide, MicroScanner <sup>2</sup> Owners CD, IntelliTone Pro Getting Started Guide, MicroScanner <sup>2</sup> owners CD, IntelliTone Pro Getting Started Guide, IntelliTone Pro owners CD, packaged in a deluxe Fluke Networks carry case





VoIP/TELECOM

## QUALIFICATION Test

## Fluke Networks CableIQ™ Qualification Tester

CablelQ is the first qualification tool designed for network technicians who need to troubleshoot connectivity problems and gualify cabling bandwidth. It determines if your cabling is gualified to support 10/100, VoIP or Gigabit

- Troubleshoots why existing cabling plant can't support the desired network bandwidth
- Discovers what's at the end of any cable and displays device configuration (speed/duplex/pairing)

P/N	Description
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CablelQ Qualification Tester, Includes CablelQ with remote adapter, CablelQ Reporter software CIQ-100 CD, (2) RJ45-RJ45 patch cord, USB cable, coax "F" push-on adapter, owners CD and quick start guide, (4) AA batteries, soft carry case

CIQ-KIT

Fluke Networks DTX CableAnalyzer™

CablelQ Advanced IT Kit. Includes CablelQ main unit with remote adapter, CablelQ Reporter software CD, IntelliTone 200 Digital Probe, Remote IDs #2-7, (2) RJ45-RJ45 patch cord, USB cable, coax "F" push-on adapter, 75-ohm coax patch cord, RJ45/11 universal coupler, RJ11-RJ11 patch cord, owners CD and quick start guide, (4) AA batteries, test accessory soft pouch, hard

## CABLE ANALYZERS

DTX significantly reduces total time to certify by improving every aspect of testing. The DTX has 9-second Cat 6 Autotest, Level IV Accuracy, 900 MHz, intuitive diagnostics, on-board fiber modules, 12-hour battery life and fast setup and reporting. AC Wiremap verifies cabling through Midspan PoE controllers.

- Exceeds spec requirements for Cat 5e/6/7 with superior Level IV accuracy
- Advanced time-saving diagnostics pinpoints fault and suggests corrective actions

Description

CableAnalyzer. Includes DTX-1800 Main and Smart Remote, LinkWare PC Software, 128MB MMC DTX-1800 Card, Cat 6A/Class EA Permanent Link Adapters (2), Cat 6/Class E Channel Adapters (2),

Headsets for Talk (2), AC Chargers (2), Carrying Case, USB Interface Cable (Mini-B), Serial RS-232

Cable (DB9 to IEEE1394), User Manual

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## LOOP TESTERS

## Fluke Networks 990DSL CopperPro™ Test Set

CopperPro offers a broad range of Plain Old Telephone Services (POTS) troubleshooting, fault location and line qualification capabilities. Its Wideband/TDR option adds high frequency transmission testing and qualification functions for services like ADSL, HDSL and HDSL2, ISDN, T1, E1 and DDS.

Replaces up to twelve traditional test sets

Troubleshoots and qualifies lines for POTS, ADSL and other special services

Time Domain Reflectometer (TDR) feature allows precision fault location

Description

CopperPro Loop Tester with Wideband and TDR







990DSLW



delivering products, knowledge, service and experien

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## networks

NTS2-PRO

ES2-PRO-SX/I

## Fluke Networks CopperPro™ Series II Broadband Loop Tester

CopperPro Series II is the latest generation of the leading copper loop test and analysis test sets. It provides a complete range of troubleshooting, fault locating, testing and qualification capabilities, all in a rugged, handheld easyto-use DSL test set. New features include broadband noise identification for VDSL, advanced TDR capabilities for locating short bridge taps and other VDSL affecting impairments, and an optional VDSL modem for verifying service connectivity and performance.

- 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

P/N	Description
990DSL2+	CopperPro Next Gen Copper Loop Analyzer w/TDR & wideband spectral analysis for ADSL2+

# 990DSL2+

networks.

FLUKE

## EXFO AXS-200/610 - 30 MHz COPPER TEST SET

30 MHz Copper Test Set

Identify copper problems affecting triple-play quality using the AXS-200/610—part of the SharpTESTER Access Line.

- Visual reports, graphs and histograms, displaying signal and noise issues
- 30MHz spectrum analysis for VDSL2 and video pregualification and troubleshooting
- Single-ended automated, clear, pass/fail test results speeding up and simplifying test cycles
- POTS and VF measurements for complete ADSL2+ and VDSL2 loop qualification

Description

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## EXFO FTB-8105 Transport Blazer - DSn/PDH and SONET/SDH Electrical Test Module

Supports DSn, PDH, SONET and SDH electrical rates up to 155 Mbit/s. Ideally suited for TDM field service deployment and maintenance activities.

- Dual Rx DSn
- Intuitive, feature-rich user interface with automated test scripting with multi-user remote management capabilities

P/N Description

DSn/PDH and Sonet/SDH Electrical Test Module

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## VoIP Installer's Tool Kit

## GREENLEE GLVOCKIT

The GLVOCKIT is a Top Quality Professional Tool Kit with one part number for ordering ease.

Kit contains tools and test equipment for installing CATV, VolP, & Data Network

## P/N

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GLVOCKIT Kit Includes:

1143-5000	Sidekick, VOC
PE830	Test Set, Pocket Telephone-Pro
402K	CATV Tone Test Set (402K)
0151-09M	Pliers, side cutting 9" molded
0251-08AM	Pliers, diagonal, angle 8" molded
0153-33C	Screwdriver, Phillips #2x4"
0153-25C	Screwdriver, flat-cab 1/4x4"
0154-10C	Wrench, adjustable 12" composite
0158-13	Carrier, tool 11"
GT-16	Detector, voltage -adjustable
46040	Tur-tel 6 modular tester
0451-10M	Pliers, pump,10" molded
301A	Saw, keyhole (POP)
1951	Stripper
NC-500	Tester, Netcat Pro VDV wiring
NC-510	Remote unit kit (Netcat Pro)
0253-16C	Nut driver,7/16"x3"

0652-11	Knife, Utilty,HD
45575	Crimper, mod plug-ratchet
60807	Crimper, compression
0351-08SM	Pliers, longnose 8" mold strip
0156-12	Hammer, straight claw 16oz
46500	Pocket-light
727M	Cutter, cable
921	Quick change extension sys kit
333A	Hacksaw (12")
0155-16A	Rule, power return 16'
0354-15	Wrench, combo ratcheting 1/2"
438-2X	Fishtape,steel-1/4"x25'
0358-11XL	Gloves, high dexterity-xl
PT-K01	Knife & scissors kit w/2 pocket pouch
0158-14	Bag, zipper small
9753-13C	Opener, bottle cushion grip
DM-20	DMM, 300V AC/DC





## **N**ETWORK **T**ESTERS

## FLUKE NETWORKS NETTOOL SERIES II INLINE NETWORK TESTER The NetProve™ diagnostics isolates and documents network device and application connectivity issues in seconds. Connect inline at 10/100Gig to see actual traffic between network and end devices to solve problems fast. Diagnose

- · Verify, isolate, and document network connectivity and application port response problems faster than ever before with automated NetProve diagnostics
- NetTool Series II is the only handheld troubleshooting tool with inline vision into 10, 100 and Gigabit links to see the actual traffic between the network and end devices like PCs, access points and security cameras
- Internal wiremap WireView Cable ID, cable length, opens, shorts, and split pairs

IP phone problems and measure VoIP call quality. Troubleshoot PoE and network cabling.

P/N	Description
NTS2-PRO	NetTool Series II Pro includes 10/100/1000Mbps inline, NetProve diagnostics, IntelliTone toning NetTool Connect PC software, WireView Wiremapper #1, set of 4 AA alkaline batteries, USB to
	mini-USB cable, Ethernet cable, Getting Started Guide, CD with Multilanguage User Manuals,
	and soft carrying case

## Fluke Networks EtherScope™ Series II Network Assistant

The EtherScope™ Series II is a handheld Ethernet Analyzer combining essential tools to help first responders guickly identify what and where the problem is so they can fix it fast. Troubleshoot 10, 100 and Gigabit links, copper and optical fiber cabling wired and wireless LANs. Measure and characterize link performance at rates up to 1Gbps.

- The right combination of troubleshooting tools in a handheld platform to help network professionals solve a wide range of problems fast
- Analyze 10/100/Gigabit twisted pair and Gigabit fiber optic Ethernet LANs, troubleshoot switched networks, Discover devices, networks and VLANs and monitor traffic statistics
- Characterize the performance of LAN and WAN links. Measure throughput, latency and frame loss per RFC 2544 at rates up to 1 Gbps over copper or optical fiber cabling

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P/N	Description
ES2-PRO-SX/I	EtherScope Series II Network Assistant PRO-SX/I includes mainframe with LAN option, 802.11a/b/g adapter with WLAN option, SX SFP with Fiber option, ITO/RFC2544 option, external directional antenna, rechargeable Li-lon battery pack (installed), protective holster, carrying strap, carrying case, AC adapter/battery charger, wire map remote (ID #1), RJ-45 coupler, patch
	cable, 128MB CompactFlash® card and resource CD

## JDSU LANSCAPER™ NETWORK TESTER

The LanScaper™ is a Jack Identifier, Cable Tester, Length Measurement Device, and Ping Tester in one unit. The easyto-use LanScaper enables quick identification at unknown RJ45 jacks for active Ethernet, POTS, Token Ring, or other devices. It pings network devices to verify connections and IP addresses, automatically accessing DHCP hosts to obtain network information.

- Detects and reports speed and capabilities for active Ethernet and other devices up to 100 Mb/s
- Pinging function verifies connectivity to network devices

P/N	Description
NT700	LanScaper Cabling and Network Tester with cable test remote. Includes two 30.48 cm (1 ft) RJ45 to alligator clips cables, two 30.48 cm (1 ft) patch cables with RJ45 connectors, two 19 cm (7.5 in) RJ12 to RJ12 cable for no-fault connection to RJ11 or RJ45 jacks, nylon case, and 9-volt battery
NT750	LanScaper Cabling and Network Tester Kit with 8 remote identifiers. Includes Tone Tracer Probe, two 30.48 cm (1 ft) RJ45 to alligator clips cables, two 30.48 cm (1 ft) patch cables with RJ45 connectors, nine 19 cm (7.5 in) RJ12 to RJ12 cables for no-fault connection to RJ11or RJ45 jacks, two RJ45 to coax F connector adapters, nylon case, and 9-volt battery

## JDSU LanScaperPRO™ Network Tester

In network mode testing, the easy-to-use LanScaperPRO enables quick identification at unknown RJ45 jacks for active Ethernet, POTS, token ring, or other devices as well as for presence of devices using power over Ethernet (PoE) at the other end of the jack or cable being tested.

- Identifies and measures power delivered by IEEE 802.3af PoE and legacy Cisco In-Line Power
- Detects and reports speed and capabilities for active Ethernet and other devices up to 1 Ghas

- Detects	and reports speed and capabilities for active Ethernet and other devices up to 1 dbps
P/N	Description
NT800	LanScaperPRO Cabling and Network Tester with cable test remote NT800. Includes 30.48 cm (1 ft) RJ45 to alligator clips cable (TP40), two 30.48 cm (1 ft) cables with RJ45 connectors (TP55), two 19 cm (7.5 in) RJ12 to RJ12 cables for no-fault connection to RJ11 or RJ45 jacks (TP20), and nylon case. Requires four AA batteries (not included)
NT850	LanScaperPRO Cabling and Network Tester Kit with 8 cable test remotes and probe. Includes 30.48 cm (1 ft) B.145 to alligator clips cable, two 30.48 cm (1 ft) cables with B.145 connectors, two

19 cm (7.5 in) RJ12 to RJ12 cables for no-fault connection to RJ11 or RJ45 jacks, Tone Tracer Probe, and nylon case. Requires four AA batteries (not included)











TE4.1

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## **NETWORK/ETHERNET TEST**

## NETWORK TESTERS

## EXFO FTB-8120NGE/8130NGE - Next-Generation Multiservice Test Modules

The FTB-8120NGE/8130NGE Power Blazer modules offer a wide range of SONET/SDH test functions ranging from simple bit error rate (BER) testing to advanced characterization and troubleshooting procedures.

- DS0/E0 to OC-192/STM-64/OTU2; 10 Mbit/s to 10 Gbit/s LAN/WAN as well as 1x, 2x, 4x and 10x Fibre Channel testing in a small form factor
- Fully integrated solution for assessing the performance of Ethernet transport networks, including RFC 2544, BER testing and multistream generation analysis
- OTN forward error correction (FEC) and optical channel data unit (ODU) multiplex testing capabilities as
- Ethernet-over-SONET/SDH (EoS) testing via GFP, VCAT and LCAS software options
- Complete carrier Ethernet services portfolio: PBB-TE, MPLS and IPv4/6

P/N

Next-Generation Multiservice Test Modules FTB-81xx

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## **S** JDSU

## NETWORK WIRE MAPPERS

## JDSU NET-RITE™ CONTINUITY AND WIREMAP TESTER

The Net-Rite™ Cable Tester is an economical, compact Continuity and Wiremap Tester for Ethernet cable. The ergonomic handheld unit is easy to use with no buttons to push to initiate testing. The auto-on feature starts the test when a short or remote is detected. The removable onboard remote enables longer cable runs and enables testing up to 305 meters (1,000 feet).

- Tests Ethernet cable for opens, shorts, split pairs, miswires, and reversals
- Shows cable faults per TIA568 specifications

•	Displays test results on full LCD, including PASS and FAIL	
•	Onboard remote stores in the bottom of the main unit	
•	Auto-on when short or remote is sensed	
•	Auto-off when remote is disconnected	
P/N	Description	
TP2	Net-Rite Cable Tester with onboard cable test remote. Includes four 6-volt button cell batteries	
KP2	Net-Rite Cable Tester with Trace-Rite™ Tone Generator. Includes Trace-Rite Tone Generator with Probe, RJ11 to alligator clips cord set, and Net-Rite Cable Tester with onboard cable test remote	



## **CARRIER ETHERNET TESTERS**

## JDSU VALIDATOR™ AND VALIDATOR-NT™ ETHERNET SYSTEM SPEED CERTIFIERS

The Validator™ series of Ethernet Network Management Tools - Validator™ and Validator-NT™- offer a complete solution to test and speed certify the data-carrying capabilities of Ethernet network cables up to 1 Gb/s by testing for noise in the network, detecting faults in the cabling wiring, and ensuring that cables are able to support the speed capabilities of active equipment.

- Conducts Bit Error Rate (BER) testing to speed certify Ethernet data transmission speed up to 1000BASE-T (1 Gb/s)
- Measures Signal-to-Noise Ratio and Skew to uncover impairments to Ethernet data transmission
- Tests for opens, shorts, split pairs, miswires, and reversals and measures distance to opens and shorts supports all network, telco, and coax cables
- Identifies cable termination on active Ethernet ports with hub flash

P/N Description

Validator Ethernet Speed Certifier Kit NT950

NT955 Validator-NT Ethernet Speed Certifier and Active Network Tester Kit





## CARRIER ETHERNET TESTERS

## Fluke Networks MetroScope™ Service Provider Assistant

The MetroScope Service Provider Assistant is the next generation in field test equipment for installing and troubleshooting carrier Ethernet services over copper or fiber. Complete RFC 2544 testing plus jitter and server response measurements support advanced services, while flexible scripting optimizes testing times. The unique Reflector accessory allows end-to-end testing without a second MetroScope.

- Complete RFC 2544 Service Level Agreement (SLA) Testing
- Jitter and Server response time measurements
- Powerful customized scripting for optimized testing

Description

MTSCOPE MetroScope Mainframe including 10/100/1000BASE-T and 1000BASE-X SFP Port, AC adapter/battery charger, remote wiremap adapter, 128MB Compact-Flash card,

Documentation CD, carrying case

MetroScope Mainframe including 10/100/1000BASE-T and 1000BASE-X SFP Port, rechargeable MTSCOPF-KIT

Li-lon battery pack. AC adapter/battery charger, Auto lighter charger, remote wiremap adapter. 128MB Compact- Flash card, Documentation CD, carrying case and LinkReflector including

10/100/1000BASE-T port

## networks



MTSCOPI

**VETWORK/ETHERNE**1

## EXFO AXS-200/850 ETHERNET TEST SET

Delivers comprehensive, yet straightforward test functionalities for installing, turning up or maintaining Ethernet and IP services.

- User-definable RFC 2544 test routines
- Bit-error-rate testing (BERT) up to layer 4

Description

**Ethernet Test Set** 

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## EXFO FTB-8510B PACKET BLAZER ETHERNET TEST MODULE

Delivers performance assurance for Ethernet-based services and tests connectivity in its native format. Ideal for verifying service-level agreements (SLAs).

- Throughput, back-to-back, latency and frame loss measurements as per RFC 2544 (bidirectional)
- Complete carrier Ethernet services portfolio: PBB-TE (MAC-in-MAC), MPLS, 802.3ah and IPv4/6
- 1x and 2x Fibre Channel testing

Description Ethernet Test Module

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## EXFO FTB-8510G PACKET BLAZER -10 GIGABIT ETHERNET TEST MODULE

The FTB-8510G offers performance assurance for Ethernet-based frame services, supporting 10 Gigabit Ethernet WAN and LAN rates for total network testing. Provides all the T&M functionalities required to verify service-level agreement (SLA) conformity.

- LAN and WAN PHY capability in a single module
- Packet jitter measurement to qualify Ethernet transport networks for transmission of delay-sensitive traffic such as video and voice-over-IP (VoIP)
- Throughput, back-to-back, latency and frame loss measurements as per RFC 2544 (bidirectional)
- EtherBERT™ test functionality for assessing the integrity of 10 Gigabit Ethernet running on WDM networks

Description

10 Gigabit Ethernet Test Module

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



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for more detailed information, visit our web site at





**ELECTRICAL/VOLTAGE** 



## GIGARIT ETHERNET LINK TESTERS

## Fluke Networks LinkRunner™ Pro Network Multimeter

The Network Link Tester empowers technicians to resolve a broader range of today's connectivity problems. It verifies link at 10/100/Gig, pings up to 10 key devices, detects Power over Ethernet (PoE), resolves 802.1X security conflicts, identifies nearest switch with CDP/EDP/LLDP discovery protocols, and generates professional link status test reports to expedite trouble ticket resolution.

- Link at 10/100/Gig identify device capabilities and confirm actual speed/duplex status
- Ping key devices measure response of DHCP, router, DNS, and other devices or URLs
- Verify 802.1X settings authenticate with EAP type, user name, certificates, and password

P/N Description

LRPRO-KIT LinkRunner Pro Extended Test Kit LRPRO-1000 LinkRunner Pro Network Multimeter

## **BERT TESTERS**

## FLUKE NETWORKS 635 QUICKBERT-T1

Compact, handheld T1 Test Set for construction, installation and troubleshooting applications. Perfect for cell backhaul applications

- 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

P/N Description

QuickBERT-TI, carrying case, ToolPak™, and necessary cables and adapters 635



FLUKE

networks.

## WI-NET WIRELESS TESTERS

## JDSU WI-NET WINDOW WIRELESS TESTER

The Wi-Net Window™ captures and displays essential information regarding identity, functionality, and capability of IEEE 802.11 b and g wireless devices. This Wireless Network Analyzer detects and connects to wireless equipment, reports signal strength, pings Internet Protocol (IP) addresses, and identifies network components.

- Displays signal strength on LED and as a percentage on the LCD
- Actively scans and logs IEEE 802.11 wireless signal types b and g
- Detects networks with hidden SSIDs

Description

Wi-Net Window Wireless Network Analyzer. Requires 4 AA batteries (not included) WP150

## WP150

Paladin Tools 1577

**JDSU** 

## PINOUT TESTERS

## PALADIN TOOLS PC CABLE-CHECK™ PRO

This Universal Tester maps cables, detects good connections, opens, shorts or crosses. It works with over 20 types of cables including: LAN & telephone, Serial, coaxial, USB, VGA, Mini-USB, S-video, FireWire, PS/2 keyboard & parallel printer.

- 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

P/N Description PC Cable-Check™ Pro

## TRIPLETT

## TRIPLETT PAIRMASTER - LAN CABLE TEST SETS New Flush Power Button reduces accidental turn-ons

Tests Cat 5, 5e & Cat 6 Cables

CAT 5. 5E AND 6 TESTERS

- Identifies 1 of 16 Cables (with optional Remote Identifiers)
- Tests 1/2, 3/6, 4/5, 7/8 Cable Pairs
- 2 7 segment LEDs display Fault Codes and Remote ID numbers

P/N Description 3240 PairMaster

TE4.4



## **M**UITIMETERS

FLUKE 114 ELECTRICAL MULTIMETER

The Fluke 114 is a Compact True-RMS Meter for electrical troubleshooting. It is the troubleshooting tool for "go/no-go" testing. It includes a feature to prevent false readings caused by ghost voltage

- AutoVolt: automatic AC/DC voltage selection
- Large white LED backlight to work in poorly lit areas
- Resistance and continuity
- Min/Max/Average to record signal fluctuations

P/N Description

Electrical Multimeter. Includes the following: Holster, Installed 9 V battery, Test leads and Fluke 114

## FLUKE 77 IV SERIES DIGITAL MULTIMETER

The Fluke 77-IV Digital Multimeter has the features needed to repair most electrical and electronic problems. This meter is simple to use and has significant improvements over Fluke's original 70 Series with more measurement functions, conformance to the latest safety standards, and a much larger display that's easier to view.

- Wide 1000 V measurement range
- Average responding AC measurements
- 0.3% accuracy
- 10 Amps continuous (20A for 30 seconds)
- Frequency and capacitance

P/N Description

Digital Multimeter for field service or bench repair

## Fluke 115 Field Service Technicians Multimeter

The Fluke 115 is a compact True-RMS Meter for field service technicians. It is the solution for a wide variety of electrical and electronic testing applications.

- Resistance, continuity, frequency, capacitance, and diode test
- Measures 10 A (20 A overload for 30 seconds)
- Compatible with optional magnetic hanger (ToolPak™)
- True-RMS for accurate measurements on non-linear loads

Min/Max/Average with elapsed time to record signal fluctuations

Description

Multimeter. Includes Holster, Installed 9 V battery, 4 mm silicone test lead set, user manual Fluke 115

### Fluke 179 Multimeter & ToolPak™ Combo Kit

These two products are bundled together so they can be ordered with a single part number at a lower price than purchasing the items separately. Now you can get more out of your Fluke 179 Digital Multimeter with the ToolPak Magnetic Meter Hanging Kit.

- True-RMS AC voltage and current for accurate measurements on non linear loads
- · Large digit display with analog bar graph
- Display backlight for work in dark areas

Description

Fluke 179 Multimeter & ToolPak™ Combo Kit

## FLUKE 117 ELECTRICIAN'S MULTIMETER WITH NON-CONTACT VOLTAGE

The Fluke 117 is a compact True-RMS Meter for commercial applications. It is the ideal meter for demanding settings like commercial buildings, hospitals and schools. The 117 includes integrated non-contact voltage detection to help get the job done faster.

- VoltAlert<sup>™</sup> technology for non-contact voltage detection
- AutoVolt automatic AC/DC voltage selection
- True-RMS for accurate measurements on non-linear loads

Description P/N

Electrician's Multimeter with Non-Contact Voltage. Includes 4 mm silicone test lead set, Fluke 117

Holster, user manual

elivering products, knowledge, service and experienc

for more detailed information, visit our web site at

TE5.1





## TRILITHIC XPRO DIGITAL MULTIMETER

The XPro Digital Multimeter is designed and engineered for your daily use for electrical testing. Measure AC/DC voltage, AC/DC Current, Resistance, Capacitance, Temperature, Frequency, Transistor, Diode and Continuity. The multimeter features a convenient large LED screen with full icon display, data hold, sleep mode and full range overload protection. The XPro Digital Multimeter comes complete with battery, test lead, point contact temperature probe and multi-purpose socket.

- Overload Protection
- Data hold
- Sleep Mode
- Easy-to-read LCD

Description

XPro Digital MultiMeter 2011332000

## TRILITHIC XPRO LITE PALM-SIZE DIGITAL MULTIMETER

The XPro Lite Digital Multimeter is an ideal tool for electrical maintenance. Measure AC/DC voltage, AC/DC Current, Resistance, Temperature, Diode and Continuity. The multimeter features a convenient large LED screen and data hold function. The XPro Lite Multimeter comes complete with battery, test lead, and point contact temperature probe.

Data hold

ECTRICAL/VOLTAGE

Easy-to-read LCD

P/N Description

2011331000 XPro Lite Digital Multimete





## AMPROBE 15XP-A DIGITAL MULTIMETER

The 15XP-A is a compact Digital Multimeter for electronics and test applications. The 15XP-A is the right choice for electronics engineers, technicians and field service.

- 3-1/2 digit liquid crystal display (LCD) with a maximum reading of 1999
- Automatic, positive implied, negative polarity indication
- (OL) or (-OL) is displayed
- Accuracy Stated accuracy at 23°C ± 5°C, <75% relative humidity Power Single standard 9 volt battery, NEDA 1604, JIS 006P, IEC 6F22

Description P/N 15XP-A Digital Multimeter

## AMPROBE 34XR-A TRUE RMS DIGITAL MULTIMETER

The 34XR-A is a True RMS Digital Multimeter with temperature and backlight for contractors and field service technicians

- Autoranging; Display: 3-3/4 digit LCD, 3999 counts with 41-segment analog bar graph
- Display Update Rate: 2/sec, nominal
- Operating Temperature: 0°C to 45°C at < 70% R.H
- True RMS digital multimeter with temperature and backlight
- Overrange indication

P/N

True RMS Digital Multimeter 34XR-A

## AMPROBE 35XP-A DIGITAL MULTIMETER

The 35XP-A is a compact, full-featured Digital Multimeter for plant maintenance, HVAC, electrical and electronic

- Temperature measurement capability to 1000°C/1832°F (Type K thermocouple included)
- 750 V AC/1000 V DC highest voltage rating in this class of meter
- Capacitance for motor run/start test
- $0.1 \,\mu\text{A}$  resolution for flame sensor testing
- Frequency to 1 MHz

TE5.2

Resistance to 40  $M\Omega$ 

P/N Description 35XP-A Digital Multim











35XP-A

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## **M**ULTIMETERS

## AMPROBE 5XP-A DIGITAL MULTIMETER COMPACT FULL-PURPOSE

The 5XP-A Digital Multimeter provides superior features and accuracy in a smaller form factor. The 5XP-A has unique features such as VolTect™ non-contact voltage detection and our exclusive Magne-Grip™ holster that frees both hands for work. The 5XP-A is the right choice for residential, commercial and general troubleshooting applications.

- Display 3-1/2 digit liquid crystal display (LCD) with a maximum reading of 1999
- Polarity Automatic, positive implied, negative polarity indication
- Operating Environment 0°C to 50°C at <70 % R.H.
- Stated accuracy at 23°C ± 5°C, <75 % relative humidity

Description

5XP-A Digital Multimeter Compact Full-Purpose

## AMPROBE 37XR-A TRUE RMS DIGITAL MULTIMETER

The 37XR-A is a true RMS Digital Multimeter with component and logic test for troubleshooting electronics at the bench or on the job site.

- Backlight, True RMS with component and logic test
- Inductance to 40 H. frequency to 40 MHz, capacitance to 400µF, logic to 20 MHz
- Input warning tone when test leads are in wrong jack
- 10 Amps AC/DC, fully safety fused

P/N Description

37XR-A True RMS Digital Multimeter

## G GREENLEE

5XP-A

## GREENLEE DM-820 DIGITAL MULTIMETER

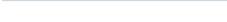
- Autoranging, 3-5/6-digit, 5000-count display for greater accuracy
- Frequency and capacitance measurements plus diode and continuity tests standard
- Data hold to capture measurements
- RS-232 capable, may be connected to a PC for extended measurement capability with optional optically-isolated interface DMSC-8L, purchased separately

Description DM-820 Digital Multimeter

## GREENLEE DM-210 DIGITAL MULTIMETER

- Autoranging for convenient operation, non-contact voltage detection, and to save time
- Data hold to capture measurements
- Auto power off and low battery indicator
- RS-232 capable, may be connected to a PC for extended measurement capability with optional optically isolated interface DMSC-2

Description DM-210 Digital Multimet





**TRIPLETT** 

## TRIPLETT 2030-C AUTORANGING, POCKET-SIZED DMM

- 3 3/4 Digit, 4000 Count Display
- Auto / Manual Ranging
- AC/DC Volts to 600V AC/DC Current to 400mA
- Resistance to  $40M\Omega$
- Capacitance Test to 100µF
- Frequency Range to 10KHz

Description

2030-C Autoranging, Pocket-Sized DMM







DM-210

**AMPROBE** 

37XR-A

DM-820

**ELECTRICAL/VOLTAG** 

## **ELECTRICAL/VOLTAGE TEST**

## **M**ULTIMETERS

## TRIPLETT MODEL 310

- 18 Ranges and Functions
- AC/DC Voltage to 1200V
- DC Current to 0.6A
- Resistance to  $20M\Omega$
- Drop Resistant, High-Impact Case
- Diode Overload Protected Meter

P/N	Description
3018	Model 310

## TRIPLETT MODEL 9045 TRUE RMS DIGITAL MULTIMETER WITH TEMPERATURE, CAPACITANCE & FREQUENCY

- 6000 Count Display
- DC Voltage Ranges to 1000V, AC Voltage Ranges to 750V
- AC/DC Current Ranges to 10A
- Resistance Ranges from  $600\Omega$  to  $60M\Omega$
- Capacitance Ranges from 40nF to 4000µF
- Frequency Ranges from 9.999Hz to 9.999MHz

P/N	Description
9045	Model 9045

## TRIPLETT MODEL 1101-A COMPACT DMM WITH BACKLIT DISPLAY & TEMPERATURE TEST

- 3 1/2 Digit, w/ 1999 max reading
- Backlit Display

ECTRICAL/VOLTAGE

- AC/DC Voltage to 500V
- AC/DC Current to 10A
- Temperature Test (Probe Included)
- Resistance to  $20M\Omega$

P/N	Description
1101	Model 1101-A

## TRIPLETT MODEL 9015-A DIGITAL MULTIMETER WITH TEMPERATURE & CAPACITANCE

- 3 1/2 Digit, 1999 max reading
- DC Voltage to 1000V. AC Voltage to 750V
- AC/DC Current to 10A
- Resistance to  $200M\Omega$
- Temperature Test (Probe Included)
- Capacitance Test (Extension Lead Included)

P/N D	escription
9015 N	10del 9015- <i>i</i>

## TRIPLETT MODEL 9005-A DIGITAL MULTIMETER

- 3 1/2 Digit, 1999 max reading
- DC Voltage to 1000V, AC Voltage to 750V
- AC/DC Current to 10A
- Resistance to  $200M\Omega$
- Manual Range Selection
- Data Hold

P/N	Description
9005	Model 9005-A













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## CLAMP-ON MULTIMETERS

### FLUKE 330 SERIES CLAMP METERS

With the striking design of the Fluke 330 Series Clamp Meters, we've taken a new look at the way you make current measurements, at how you use your tools, and how to get the results you need, faster and more conveniently. The result is a new, ergonomic concept, shaped to fit your hand and to access tight spots easily.

P/N Description		
	Fluke 333	Rugged reliability at a basic price, measures AC amps, AC/DC volts and ohms
	Fluke 334	Large display with backlight, measures AC amps, AC/DC volts, ohms and motor start-up current
	Fluke 335	True-RMS clamp meter, large backlit display, measures AC amps, AC/DC volts, ohms and motor start-up current
	Fluke 336	True-RMS clamp meter that measures AC/DC current and voltage, ohms, motor start-up current with large display and backlight
	Fluke 337	Top-of the-line True-RMS clamp meter, large jaw measures AC/DC current and voltage, ohms,

All models include: Coated instruction card, Safety information sheet, Soft carrying case, TL75 test leads, Two AA Alkaline batteries.

## **FLUKE**



**ACD-10 TRMS-PLUS** 

## AMPROBE ACD-10 TRMS-PLUS 600A CLAMP-ON MULTIMETER

The ACD-10 TRMS-PLUS Meter offers thinner jaws over standard clamp meters. Allowing access to tight measurement areas and still accommodating conductors up to 25 mm. Both meters also measure Capacitance and Frequency. Frequency is measured by either jaws or test leads. True RMS version for noisy measurement environments for a more accurate reading.

- AC & DC Voltage to 600V
- AC Current to 600A
- Resistance to  $40M\Omega$

P/N	Description
ACD-10 TRMS-PLUS	600A Clamp-On Multimeter TRMS

## AMPROBE ACDC-100 DIGITAL CLAMP-ON MULTIMETER

The ACDC-100 offers superior AC/DC measurement capabilities, highest product quality and enhanced ergonomics with Red, Rubber, Ribs™ design. The TRMS version addresses needs of professionals who rely on performance and reliability.

- Large, easy to read LCD display
- Auto and manual ranging
- Relative zero mode

P/N	Description
ACDC-100	AC/DC Digital Clamp-on

## AMPROBE ACD-15 TRMS PRO 2000A DIGITAL CLAMP-ON MULTIMETER

The ACD-15 TRMS offers a wide range of measuring features built into one, professional meter. The TRMS version with backlight display, improves performance and reliability.

- TRMS & Backlight Screen
- Non-contact Voltage Level Detection
- Diode Test
- Audible continuity

-/IN	Descriptio
ACD 1E TOMC DDO	2000 A D:~

GREENLEE TRUE RMS CLAMP METER

Resistance measurement

Audible continuity test

AC amperage, AC/DC voltage measurement

Auto power off for longer battery life. Data hold to capture measurements

Description

2000A Digital Clamp-on Multimeter TRMS ACD-15 TRMS PRO





ACD-15 TRMS PRO

ACDC-100

CM-450

AC Clamp-on Meter, True RMS

True RMS for the most accurate measurement where harmonics are present

P/N CM-450

## TRIPLETT MODEL 9200 MINI AC CLAMP-ON METER

- Economical, Compact AC Current Clamp-on
- Simple, One Button Operation
- Measures from 0 to 200 Amps AC in Two Ranges
- Large, 3 3/4 Digit, 4000 Count Display
- Autoranging
- Overload Indication (@ 400A)

P/N Description 9200 Model 9200

## TRIPLETT MODEL 9320-A TRUE RMS AC/DC CLAMP-ON METER

- 3 3/4 LCD with max. reading of 3999
- CAT III 600V
- True RMS Measurements (45Hz to 1KHz)
- AC/DC Current Measurement to 1000A
- AC/DC Voltage Measurement to 600V
- Resistance Measurement to 40MQ
- Temperature from -4° to 1472° F

Description 9320 Model 9320-A







## Voltage Detectors

## Fluke Networks Voltage Detector

This Voltage Detector detects AC and DC voltages through a long-life carbide tip, which is protected by a plastic cap when not in use. To use the Voltage Detector, you simply place the carbide tip on the object in question, press the magnetic trigger, and observe the LEDs. If the green LED illuminates, the surface being touched is free from electrical hazards. If the red LED flashes, dangerous voltage is present.

C9973 Voltage Detector Kit Includes Voltage Detector, probe cap, storage bag, temporary bond,

ground cord and handbook.

C9974 Voltage Detector Kit with Test Plug







## FLUKE 1AC A1 II VOLTALERT

The next generation VoltAlert™ AC non-contact Voltage Testers from Fluke are easy to use — just touch the tip to a terminal strip, outlet, or supply cord. When the tip glows red and the unit beeps, you know there's voltage present. Electricians, maintenance, service, safety personnel, and homeowners can quickly test for energized circuits in the workplace or at home.

Description

AC Voltage Detector 90-1000V, ENGL/LASPN/CFR Flat-tip

## FLUKE T5 VOLTAGE, CONTINUITY AND CURRENT TESTERS

The Fluke T5 Electrical Testers let you check voltage, continuity and current with one compact tool. With the T5, all you have to do is select volts, ohms, or current and the tester does the rest. OpenJaw™ current lets you check current up to 100A - without breaking the circuit. Its tough test leads stow neatly in the back of the tester, making it easy to tote the T5 in your tool pouch. Detachable SlimReach™ test probes are customized for national electrical standards. The test leads accept optional accessories such as clips and specialty probes. Available in 600V and 1000V models.

Description

1000V Voltage, Continuity and Current Tester Fluke T5-600 600V Voltage, Continuity and Current Tester

All models include: 4 mm detachable probes, Instruction sheet.





## VOLTAGE DETECTORS

## GREENLEE NON-CONTACT VOLTAGE DETECTOR

- Fast, easy, non-contact voltage detection
- Bright LED and audible alarm if voltage is present
- On/Off switch for longer battery life
- Use to detect the presence of voltage at outlets, lighting fixtures, circuit breakers, wires and cables or to find a

Non-Contact Voltage Detector. Voltage Detection: AC V 50-1000; Frequency: 50-500Hz; GT-11

Measurement Category: Cat IV, 1000V

## **GREENLEE VOLTAGE TESTER**

AC/DC voltage and polarity measurement LCD and dual color LEDs for convenience. Selectable SHAKER feature when measuring AC voltage. Overvoltage warning gives user visual notification that voltage levels have exceeded 1000V AC/380V DC. Auto-hold automatically activates when tester is removed from voltage reading. Continuity test and single probe detection of live conductors for added flexibility. Safe, non-contact voltage detection GFCI test capability eliminates the need for additional testers. Visual and audible continuity.

- AC/DC Voltage and polarity measurement
- Continuity test and single probe detection of live conductors for added flexibility

P/N Description

GT-95 Voltage Tester. Voltage Detection: 19 to 1000 VAC, 5 to 1000 VDC; Frequency: 0 to 70 Hz; GFCI:7.5 mA at 120 VAC, +/- 10%; Measurement Category: CAT IV, 600 V; CAT III, 1000 V

## GREENLEE ELECTRICAL TESTER - 400AMP

- Hassle-free automatic measurement of amperage, voltage and resistance
- Compact design for measuring in tight spaces
- 400A AC, 600V AC/DC measurement
- Data hold to capture important readings

P/N

Electrical Tester, 400A: DC V: 1.8-600.0: -0.6 to -600.0V: Resistance: 2000Ω with continuity CMT-80

beeper; Display: 6000-count; LCD Jaw Opening: 1.06

## TRIPLETT SNIFF-IT NON-CONTACT, AC VOLTAGE DETECTOR

- Ergonomic Design
- Detects AC Voltage without making contact
- Sensitivity from 30 to 600 Volts AC
- Light flashes & beeper chirps when AC voltage is present
- Beep Rate Indicates the Magnitude of Voltage (low or high voltage)

Description

Model 9600 Sniff-It Rev A

## TRIPLETT SNIFF-IT 2 NON-CONTACT, AC VOLTAGE DETECTOR WITH ADJUSTABLE SENSITIVITY CONTROL

- Detects AC Voltage without making contact
- Variable Sensitivity, from 5 to 600 Volts AC
- Light flashes & beeper chirps when AC voltage is present
- Flashes & Beeps faster as AC voltage is approached

P/N Description

Model 9601 Sniff-It 2

## Telco Sales, Inc. Voltage Detector with Leather Pouch

The Voltage Detector tests for potentially hazardous AC voltage that may be encountered by communications technicians.

P/N Description

FVD/FVDP Voltage Detector with Leather Pouch











**ELECTRICAL/VOLTAGE** 



TRIPLETT



FVD/FVD



delivering products, knowledge, service and experience

TE5.7

## **GROUND LOOP TESTERS**

## FLUKE 1630 EARTH GROUND CLAMP METER

The clamp-on ground testing technique used by the Fluke 1630 Clamp Meter simplifies ground loop testing and enables non-intrusive leakage current measurement. The compact and rugged design makes the Fluke 1630 easy to use in small places and harsh environments, while the 'display hold' and the continuity testing with an audible alarm function ensures convenience in use. The novel technique means that earth ground loop testing and continuity testing can be completed without breaking the circuit.

P/N Description

Fluke 1630 Earth Ground Clamp Meter, Includes Rugged carrying case with shoulder strap, Resistance test loop, 9 V battery, User's manual in English, French, Spanish, German, Italian, Portuguese, and

Simplified Chinese



TRIPLETT

**FLUKE** 

## **GROUND FAULT CIRCUIT TESTERS**

## TRIPLETT PLUG-BUG 2

- For use on 110~125 VAC receptacles
- Detects common wiring problems in standard and Ground Fault Circuit Interrupter (GFCI) outlets
- To test, simply plug into receptacle and observe the light pattern
- Push the yellow button to test operation of ground fault receptacle
- GFCI "Test in Progress" LED Indicator

Description

9610 Plug-Bug 2 GFCI Receptacle Tester



## CIRCUIT BREAKER LOCATORS

## TRIPLETT BREAKER SNIFF-IT DIGITAL CIRCUIT BREAKER LOCATOR

- Micro-Processor Controlled Reduces False Readings
- Fully Automatic No Adjustments Necessary
- 120/220 VAC Transmitter (250 VAC Max)
- Audible & Visual Indication
- Auto Power Off Battery Saver
- Uses 1 standard 9-Volt Alkaline Battery (not included)

P/N

ELECTRICAL/VOLTAG

Description

Model 9650 Breaker Sniff-It 9650



## BATTERY TESTERS

## TRIPLETT CHEK-A-CELL SEALED LEAD ACID BATTERY TESTER

An affordable way to quickly and accurately measure the voltage of Sealed Lead Acid Batteries.

- Load Tests 6 and 12 volt sealed lead acid batteries
- Works for batteries from 1 to 10 Amp Hours
- Measures within 0.01 volts
- Economical and Easy to Use
- Polarity Reversal Indication and Protection

Description Chek-A-Cell

TE5.8



## SATELLITE TEST

## TRILITHIC XFTP SAT-2150 SATELLITE METER

The XFTP SAT-2150 Meter makes satellite installation and alignment simple and fast. Perfect for installers and contractors, this satellite meter provides self-calculated azimuth, elevation and polarization for initial dish setup, signal level tuning and measures digital satellite signal, BER and C/N quickly to confirm a quality signal.

- Displays Dish Orientation (Az, El, Po)
- Simultaneous Display of Signal Strength and Quality of Signal
- QPSK Signal Level, C/N and BER Measurements
- C & K Band

Description

201175000 XFTP SAT-2150 Satellite Meter

## TRILITHIC XFTP SAT LITE SATELLITE METER

The XFTP SAT LITE Meter makes satellite installation and alignment simple and fast. Perfect for installers and contractors, this satellite meter provides signal level and signal quality tuning for easy dish alignment and measures digital satellite BER and C/N quickly to confirm a quality signal.

- Simultaneous Display of Signal Strength and Quality of Signal
- OPSK C/N and BER Measurements
- C & K Band

P/N Description

201185001 XFTP SAT LITE Satellite Meter Satellite Meter

## SENCORE DSA 1471 DIGITAL SATELLITE ANALYZER

The DSA 1471 Digital Satellite Analyzer is specifically designed to meet the requirements of satellite installers and operators who need to quickly adapt to rapidly changing digital satellite technology as well as new LNBs with SCR (Single Cable Router) technology. The DSA 1471 allows engineers and technicians to quickly and accurately align and troubleshoot issues using its easy-to-use "Sat Finder" technology.

- Complete tuning capabilities from 930 MHz to 2.25 GHz for testing any digital or analog satellite signal
- The DSA 1471 will tune to C-band, KU-band and KA-BAND
- Fully demodulated QPSK, SCPC, and MCPC signals to fit a wide range of applications

Description

Digital Satellite Analyzer DSA 1471

## JDSU SATELLITE SIGNAL STRENGTH METER

The Satellite Signal Strength Meter is a simple, easy-to-use mechanical device used to maximize a satellite signal between the low noise block (LNB) amplifier and the receiver.

- Rugged ABS body
- Easy-to-read analog display
- Frequency range: 950-2,050 MHz
- Variable attenuator for ultra-fine tuning capability Powered by satellite receiver—no batteries required

Description

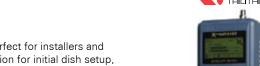
CS300 Satellite Signal Strength Meter

## TRIPLETT SATALIGN 2

- Analog Meter for Easy Readout
- Audible Tone Changes Pitch with Signal Strength
- Fast Response Speeds Adjustment
- Expanded Scale Meter for Precise Alignment 950MHz to 2050MHz Operation
- Sensitive MMIC Meter Amplifier

Description

SatAlign 2 Digital Satellite Signal Strength Meter with Tone 3275







SENCORE



DSA 1471









delivering products, knowledge, service and experienc

## **FAFL** Telecommunications

The FSM-60S Fusion Splicer sets the standard for core alignment fusion splicing by incorporating a userfriendly interface with enhanced features to provide a rugged and reliable Fusion Splicer. The new rugged construction adds improved reliability by resisting shock, dust, and rain, and can withstand a 30" drop test.

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration and fiber identification
- User-selectable fiber clamping method sheath clamp or fiber holders
- 2 vear manufacturer's warranty
- Color LCD display with anti-reflective coating for excellent visibility in bright sunlight

COIOI ECD GIO	color Lob diopidy with and remodified codding for excellent violatinty in anglic during it		
P/N	Description		
S014532	FSM-60S Fusion Splicer Kit (with cleaver). Includes CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray and Transit Case with Carrying Strap		
S014562	FSM-60S Fusion Splicer Kit (with cleaver, battery and cord). Includes BTR-08 Battery, DCC-14 Battery Charge Cord, CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap		



FAFL Telecommunications

## AFL FSM-18S FUSION SPLICER

The FSM-18S Fusion Splicer is a low cost, fixed V-groove, single fiber Fusion Splicer with the same robust features offered in other high end models. The new rugged construction adds improved reliability by resisting shock, dust, and rain, and withstands a 30" drop test.

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration
- User-selectable fiber clamping method sheath clamp or fiber holders

<ul> <li>Long life battery (up to 150 splice/heat cycles per charge)</li> <li>Green friendly – RoHS &amp; WEEE compliant</li> </ul>		
P/N	Description	
S014528	FSM-18S Fusion Splicer Kit (with cleaver). Includes. CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	
S014560	FSM-18S Fusion Splicer Kit (with cleaver, battery and cord). Includes BTR-08 Battery, DCC-14 Battery Charge Cord, CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray, and Transit Case with Carrying Strap	



## AFL SPLICEMATE™ FSM-11S FUSION SPLICER

SpliceMate (FSM-11) is a small and portable Fusion Splicer designed to meet the challenges posed by today's fiber networks. SpliceMate fits in the palm of your hand, yet it's smart and reliable enough to be used with confidence by inexperienced operators.

- Highly portable
- Dual camera inspection
- 3.5" dual direction monitor
- 40-second tube heater Auto arc calibration

P/N	Description

S013988 FSM-11S Fusion Splicer Kit with Cleaver, Includes FSM-11S Fusion Splicer, CT-30 Cleaver, FH-50-250 Fiber Holders, BTC-04 Battery Charger, BTR-07 Battery, ADC-10 Adapter (for BTC-04), ACC-09 Power Cord (for ADC-10), Spare Electrodes (Pair), Operation Manual,



## SPI ICERS

## AFL FSM-60R12 FUSION SPLICER

The FSM-60R12 Fusion Splicer offers versatility and reliability. The new ribbon splicer withstands a drop test of up to 30" and continues to splice. And enhanced, robust features enable the FSM-60R12 to resist shock, dust, and rain so that unfortunate environmental conditions do not negatively impact productivity.

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration and ribbon fiber identification
- Auto-start tube heater
- Simultaneous battery charge and splicer operation
- Long life battery (up to 90 splice/heat cycles per charge)

	P/N	Description
	S014534	FSM-60R12 Fusion Splicer Kit (with cleaver and stripper). Includes CT-30 Cleaver, HJS-02
		Hot Jacket Stripper, FH-50-12 Fiber Holders (pair), ADC-13 AC Adapter, ACC-14 AC Cord,
		Magnifier, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare
		Electrodes (pair), Quick Reference Guide, Video Instruction Manual, and Transit Case with
		Carrying Strap
	S014563	FSM-60R12 Fusion Splicer Kit (with cleaver, stripper, battery and cord). Includes CT-30

FSM-60R12 Fusion Splicer Kit (with cleaver, stripper, battery and cord). Includes CT-30 Cleaver, HJS-02 Hot Jacket Stripper, FH-50-12 Fiber Holders (pair), BTR-08 Battery, DCC-14 Battery Charge Cord, ADC-13 AC Adapter, ACC-14 AC Cord, Magnifier, JP-05 Splice Sleeve Cooling Tray, USB Cable, Splicer Carrying Strap, Spare Electrodes (pair), Quick Reference

Guide, Video Instruction Manual, and Transit Case with Carrying Strap



## **CORNING**

## CORNING OPTISPLICE® M90e FUSION SPLICER

The M90e Fusion Splicer offers two core-alignment technologies, the LID-SYSTEM™ and the Core Detection System (CDS). The LID-SYSTEM has advanced technology available for splicing 250 micron Single-mode fibers, providing a splice loss measurement after the splice is completed. Alternately, the camera-based CDS system is optimized for speed and versatility, working with either 250 or 900 micron coated fibers and with bend-insensitive fibers such as Corning<sup>®</sup> ClearCurve<sup>™</sup> fiber. The M90e provides an advanced set of features, yielding precise performance while reducing training and maintenance costs, all in a compact, user-friendly fusion splicer.

- Long-haul, CATV, telco and LAN applications
- Accurately splices current, legacy, dissimilar and specialty fiber types
- Splices 900 µm pigtails utilizing three-dimensional core alignment technology the core detection system (CDS) mode

P/N	Description

OptiSplice® M90e Fusion Splicer with FBC-006 cleaver, carrying case with wheels, fast M90e-0SM-T-H heat-shrink oven, splice tray holder, AC power supply w/US cord, Li-lon battery with

external charger, 1-year limited warranty, operators manual on CD, USB worklight,

maintenance tool kit



### CORNING OPTISPLICE® CDS FUSION SPLICER

The OptiSplice CDS Fusion Splicer offers the speed and versatility of a video-camera-based core-alignment technology known as the core detection system (CDS). The CDS system works on both 250 and 900 micron fibers and offers a fast total splice cycle time for a core-alignment fusion splicer. The OptiSplice CDS provides an advanced set of features, yielding precise performance while reducing training and maintenance costs, all in a compact, user-friendly fusion splicer.

- Touch screen with graphical user interface
- Built-in interactive training videos
- 3-axis core-alignment by the CDS system

### P/N Description

OSCDS-0SM-T-H

OptiSplice® CDS Fusion Splicer with FBC-006 cleaver, carrying case with wheels, fast heat-shrink oven, splice tray holder, AC power supply w/US cord, Li-Ion battery with external charger, 1-year limited warranty, operator's manual on CD, USB worklight,

maintenance tool kit



FIBER OPTIC SPLICERS

for more detailed information, visit our web site at

## **SPLICERS**

## **CORNING**

## CORNING OPTISPLICE® ONE FUSION SPLICER

The OptiSplice® One Handheld Fusion Splicer is a durable, reliable and affordable splicer for restoration and installation of Enterprise, Telco, CATV and FTTx networks with single fibers. This innovative tool features an intuitive user interface for easy menu navigation and dual cameras provide a clear view of the fibers, allowing for a splice loss estimate of the completed splice.

- Graphical user interface
- Ergonomic layout

P/N Description

OS1-0SM-T-H OptiSplice® One Handheld Fusion Splicer with cleaver, 1 set of 250 µm handlers, fast

heat-shrink oven, carrying case, 1 Li-lon battery, external battery charger, AC power supply with US cord, operator's manual (English), detachable splice tray holder/screen cover and



## CORNING OPTISPLICE® RIBBON FUSION SPLICER

The OptiSplice® Ribbon Handheld Fusion Splicer is a sturdy and reliable high-performance splicer for restoration and installation of ribbon cable with 2-, 4-, 6-, 8-, or 12-fiber ribbons or single fibers. This innovative tool features a graphical user interface (GUI) for easy menu navigation. Dual cameras provide a clear view of the fibers and allow for a splice loss estimate of the completed splice.

- Telco, CATV and FTTx networks
- Restoration and installation of ribbon cable
- Locations with limited workspace

P/N	Description

OSR-0SM-T-H

OptiSplice® Ribbon Handheld Fusion Splicer with cleaver, thermal stripper, 1 set of 12-fiber handlers, fast heat-shrink oven, carrying case, 1 Li-lon battery, external battery charger, AC power supply with US cord, operator's manual (English), detachable splice

tray holder/screen cover, and 1-year limited warranty



## FITEL S122A-KIT-01 SPLICER KIT

With its super low profile and new user interface, the 122 Series Fusion Splicer offers next generation workability for every splicing field: FTTx, LAN, backbone or long-haul installations. Combining the portability, power flexibility and field ruggedness of FITEL's previous generation hand-held units with its proven highquality ribbon splicing capabilities, the S122 delivers fast and consistent splicing with outstanding mobility and extreme ease-of-use. The S122A is designed for single fiber using a fiber holder system.

- 40% reduction in weight (1.85 lbs. w/battery)
- 40% larger LCD screen viewable in direct sunlight
- New GUI interface, intuitive icons & function keys

P/N	Description

S122A-01

Kit Includes S122A Splicer, Strap, Soft Carrying Case, Fiber Stripper, One-Action Precision Cleaver, 900um Fiber Holders (Pair), Li-ion Battery, AC Adapter, Battery Recharger,

Electrodes (Pair), Electrode Cleaning Disk, Fiber Preparation Fluid, Fiber Wipes, Manual



## FITEL S177A-01-KIT SPLICER KIT

This hand-held, Core Alignment Splicer Kit features the S177A Splicer Standard Package plus: fiber holder mounts, S211B fiber stripper, and our S325A one-action precision cleaver.

- A true hand-held unit, 40% lighter than standard core alignment units
- Fast 9-second splice time; 37-second heat time
- Internal battery recharges when unit is plugged into AC Power even while splicing
- Machine self-diagnostics verify function of all motors, sensors and cameras

P/N	Description
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S177A-01 Kit Includes S177A Splicer Main Body, Spare Electrodes, Carrying Case, Manual, 10mm Fiber Clamps, Internal Battery, AC Adapter, Electrode Cleaning Disk, Fiber Stripper,

One-Step Precision Cleaver, Fiber Wipes, Fiber Preparation Fluid, Manual



## **C**I FAVERS

The CT-30 Cleaver sets the standard for portability, reliability and ease of use. Available for either single fiber or ribbon splicing (up to 12 fiber ribbons) applications, the CT-30 Cleavers are compatible with all AFL Telecommunications fusion splicers. Designed for excellent portability, the CT-30 is equally at home in a splicing van or in a bucket truck and is ideal for FTTx applications. The 16-position blade yields 48.000 single-fiber cleaves. or 4,000 12-fiber ribbon cleaves before requiring replacement, and the built-in scrap collector conveniently stores fiber shards until they can be safely discarded.

Р	/N	Description

**AFL CT-30 Series Fiber Cleavers** 

CT-30 for Fiber Ribbons (up to 12 fibers), Cleave Length: 10mm S014076

S014080 CT-30A for Single Fibers: 250µm to 900µm coating, 125µm cladding, Cleave Lengths: 900µm:

10 mm to 20 mm; 250µm: 6 mm to 20 mm

## FITEL S315 FIELD CLEAVER

The S315's small, lightweight size makes it the perfect addition to any field splicing system. In addition, the unit's graduated scale allows for cleave lengths of 5 to 20 mm. Designed to accommodate 250µm and 900µm coating diameters, the S315 is FITEL's least expensive cleaver model.

The S315 field cleaver requires some skill to achieve the desired cleave angle so it may not be appropriate for some splicing applications.

For cleaving 5 to 20 mm length adjusting with scale

## FITEL S325A ONE-STEP PRECISION CLEAVER

This compact unit delivers speed and precision. With a single button, you complete a secure cleave and the waste fiber is automatically collected. Excellent for hand-held and work bench use. Performs 32,000 cleaves.

- One-step action
- Easy fiber loading, all fiber types, single to 12-fiber ribbon
- Simple operation for all technicians
- High capacity waste fiber collection

P/N Description

One Step Precision Cleaver. Includes S325A Cleaver Main Body, Soft Carrying Case, S325A

Normal Fiber Waste Bin, Single Fiber Adapter, Large Capacity Fiber Waste Bin, Operation

## **CORNING FIBER CLEAVERS**

Description

Cleaver, Bare Fiber Diameter: 100 to 140um: Fiber, Multimode or single-mode The FBC-001 ( $\leq 2^{\circ}$ ) is designed for cleaving fiber ends for multimode and single-mode OTDR testing, mechanical

splicing, and UniCam® Connector installation.

P/N Description

FBC-006 Cleaver. Bare Fiber Diameter: 80 to 140µm; Fiber Type: Multimode, single-mode, NZDS

The FBC-006 cleaver provides smooth, flat, perpendicular fiber end-faces (typically < 0.7°) necessary for low-loss fusion or mechanical splicing. Fast and easy to use, it produces high quality, repeatable cleaves for multimode and single-mode fibers in one simple step. The unit cleaves all 250µm coated fibers and 900µm buffered fibers.

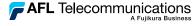
Description

FBC-012 Cleaver. Bare Fiber Diameter: 125µm nominal; Fiber Type: Multimode or single-mode

The FBC-012 Mass Fiber Cleaver provides excellent cleaves of one to 12 fibers using a simple one-step operation. The cleaver comes with a universal single-fiber guide that may be used when cleaving single fibers. The guide can be removed to allow the cleaver to hold common fiber handling adapters of mass fusion splicers or fiber handlers for UniCam Connector installation. The 12-position blade can be easily replaced in the field.

FBC-015 Cleaver. Bare Fiber Diameter: 100 to 140µm; Fiber Type: Multimode or single-mode

The Pretium Cleaver is a handheld, ergonomically designed, precision Cleaver enabling easy installation of UniCam® Pretium Cleaver Connectors. The Cleaver provides consistent cleaves regardless of operator skill level. It uses a dual-clamp for precision and a diamond blade for superior cleaving. There is consistent cleaving of 250 or 900 micron fibers and it is compatible with jacketed applications. The integrated scrap bin allows for easy collection of fiber waste when working in a variety of environments. The handheld Cleaver does not require a work surface in order to perform precision cleaves.

















FIBER OPTIC SPLICERS

## HOT JACKET STRIPPERS

## FAFL Telecommunications

### **AFL HOT JACKET STRIPPERS**

The HJS-02 and HJS-03-24 Hot Jacket Strippers provide superior ribbon and field ribbonized stripping performance. They conserve power for field stripping when operating under battery power. A temperature selection switch is also provided for easy optimization in the field for different fibers or operating conditions. An optional single-fiber adapter may be used to provide easy, single-fiber capability for high strength splicing applications, or for single-fiber capability for difficult to strip fibers. These strippers also accept the fiber holders of the FSM-40F and FSM-40PM factory/lab splicers. An optional power assist tool for the HJS-03-24 allows smooth and controlled stripping of 24-fiber ribbons

P/N	Description
S010340	HJS-02 Hot Jacket Stripper (12 fibers max.)
S013264	HJS-02-80 Hot Jacket Stripper (80µm cladding)
S012960	HJS-03-24 Hot Jacket Stripper (24 fibers max.)
S012964	HJS-03-24PA Power Assist Tool for HJS-03-24
S010496	AC Adapter for HJS-02 and HJS-03-24
S010428	SAD-01 Single Fiber Adapter for HJS-02



## **Accessories**

## AFL SPLICER V-GROOVE CLEANING KIT

Contamination in the v-groove of the splicer is still a primary source of trouble for the splicing technician. This is especially problematic when splicing with a fixed v-groove Fusion Splicer. Environmental contamination, such as dust, dirt, and fiber coating debris, as well as, the silica deposits generated during the fusion process eventually find their way to the surface of the v-groove. To solve cleaning needs, The Splicer V-Groove Cleaning Kit integrates eight components into an affordable and effective inspection and cleaning solution for any fusion splicer. Small and lightweight, it fits easily into the Fujikura splicer transit case or it can be carried separately in its own carrying case.

P/N	Description
S014397	Splicer V-Groove Cleaning Kit. Includes Scrubber Brush with stiff tapered nylon bristles, Sweeper Brush with soft nylon bristles, Eye Loupe with 3X to 12X magnification, LED Pen Light with momentary or constant on switching, Cleaning Fluid that is nonflammable and environmentally safe, Lint-free Cotton Swabs, Instruction Sheet with illustrations, Canvas Carrying Case
S014416	Splicer V-Groove Cleaning Refill Kit





## acronyms

APU	Angled physical contact/angled
	polished connector
ATM	Asynchronous transfer mode protoc
BER	Bit error rate (ITU-T uses bit error
	ratio)
BPON	Broadband passive optical network
CD	Chromatic dispersion
CMT	Cable modem termination system
CO	Central office
CWDM.	Coarse wavelength-division
	multiplexing
DBS	Direct broadcast service
DFB	Distributed-feedback (laser)
DWDM.	Dense wavelength-division
	multiplexing
EDFA	Erbium-doped fiber amplifier
ENIU	Ethernet network interface unit
EPON	Ethernet-ready passive optical
	network
FDH	Fiber distribution hub
FEC	Forward error correction
FO	Fiber-optic
FP	Fabry-Perot (laser)

ADM .....Add/drop multiplexer (or multiplexing)

Fiber-to-the-x, where $x = (H)$ ome,
(C)urb, (B)uilding, (N)ode, (P)remises,
etc.
Gigabit-capable passive optical
network
High-definition television
Hybrid fiber coaxial transmissions
International electrotechnical
commission
Institute of electrical and electronic
engineers
Incumbent local exchange carrier
Internet protocol
International telecommunication union
International telecommunication union
- telecommunications standardization
sector
Wavelength
l ive fiber detector
Mode-field diameter
Multimode
Mean time to repair
Noise figure (noise from an optical
amplifier in dB)

<i>3</i> , (1 /101111303,	oooptical carrier (transport rate)
	OLAOptical line amplifier
optical	OLTOptical line terminal/termination
	OLTSOptical loss test set
	ONTOptical network terminal/termination
missions	ONUOptical network unit (non-transmittir
nical	ONT)
	OPMOptical power meter
l electronic	ORLOptical return loss
	OSAOptical spectrum analyzer
ge carrier	OSNROptical signal-to-noise ratio
,	OSPOutside plant
nication union	OTDROptical time-domain refl ectometer
nication union	p2mpPoint-to-multipoint
andardization	p2pPoint-to-point
	PBXPrivate branch exchange
	PCPolished connector
	PLCPlanar lightwave (or lightguide) circu
	PMDPolarization mode dispersion or
	physical   medium dependent
	PONPassive optical network
an optical	POTSPlain old telephone service
	PSTNPublic switched telephone network

...Network interface unit

Т	QoSQuality of service
	RBOCRegional Bell operating company
	RFRadio frequency
	RFCRequest for comment (IETF)
	ROADMReconfigurable optical add/drop
	multiplexer
1	RTDRound-trip delay
	RxReceiver
	SDHSynchronous digital hierarchy
	SLAService level agreement
	SMSinglemode
	SMFSinglemode fiber
	SNRSignal-to-noise ratio
	SONETSynchronous optical network
	TDMTime-division multiplexing
	TDMATime-division multiple access
	TIATelecommunications Industry
	Association
	TxTransmitter
	UPCUltra-polished connector
	VFLVisual fault locator
	VODVideo-on-demand
4	VoIPVoice-over-Internet protocol
	WDMWavelength-division multiplexing
	Source: Compliments of EXFC

Tool Kits



## TVC FIBER RESTORATION KIT

TVC Fiber Restoration Kit including Cleaver and Visual Fault Finder.

## P/N - TVCFRK

Kit Includes:

Part Number	Description
FO103-S	Miller Fiber Stripper
2312	12' Tape Measure
226	Miller Tweezers
32721SH	Sharpie Black Marker
630-1/2	1/2" Nut Driver
D318-5C	5" Needle Nose Pliers
KS1	Kevlar Shears
CK6	Razor Knife
FPF1	Fiber Preparation Fluid
Fiber Wipes	Fiber Wipes/ 90 Tub
F1-0006	Cotton Swabs
70035	4 Bit Screwdriver Set
D259-4C	Midget Diagonal Cutter
63050	Cable Cutter
CR	Cable Ripper
CFSP	60MM Fiber Splice Sleeve (100 Bag)
MK02	Round Cable Slitter
95	Cable Ripper
ACS	Armored Cable Slitter
F1-00053HARD	Case, Hard 20 x 8 x 15
F1-0053STP	Leather Stitched Pallet



## TVC FIBER SPICE KIT

TVC Fiber Splice Kit offers custom tool kits for all fiber optic preparation and restoration requirements.

## P/N - TVCFSK

Kit Includes

Nit iliciuues.	
Part Number	Description
FO103-S	Miller Fiber Stripper
2312	12' Tape Measure
226	Miller Tweezers
32721SH	Sharpie Black Marker
630-1/2	1/2" Nut Driver
D318-5C	5" Needle Nose Pliers
KS1	Kevlar Shears
CK6	Razor Knife
FPF1	Fiber Preparation Fluid
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F1-0006	Cotton Swabs
70035	4 Bit Screwdriver Set
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63050	Cable Cutter
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CFSP	60MM Fiber Splice Sleeve (100 Bag)
MK02	Round Cable Slitter
95	Cable Ripper
ACS	Armored Cable Slitter
F1-00053HARD	Case, Hard 20 x 8 x 15
F1-0053STP	Leather Stitched Pallet
FOC-SS	Fiber Optic Cleaver
FO-VFL	Fiber Optic Visual Fault Locator

## CORNING OPTICAL FIBER ACCESS TOOL (OFAT)

The Fiber Access Tool (OFAT) is designed to provide mid-span fiber access in standard Corning Cable Systems ALTOS® Cables. This rugged hand tool will accommodate buffer tubes from 2.4 to 3.0 mm. The OFAT clamps over a buffer tube. As the tool is pulled along the buffer tube, two offset blades split the tube without damaging fibers inside.

2/IN	Description
2 F T 2 2 2	0 .: 1

Optical Fiber Access Tool (OFAT) for accessing fibers in a buffer tube mid-span; accommodates OFT-000 buffer tubes with outside diameters of 2.4 mm to 3.0 mm

## CORNING UNIVERSAL ACCESS TOOL (UAT3)

The Universal Access Tool (UAT3) simplifies a mid-span access on any Corning Cable Systems single-tube fiber optic cable product, including ribbon cable. Unlike other access tools requiring strength and awkward handling, the UAT3's design allows controlled movement. Its unique drive mechanism easily pulls the tool along the tube as the T-handle is turned. As the tool passes down a length of tube, two blades on opposite sides of the tool score the outside of the tube

P/N	Description
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Universal Access Tool for accessing fibers mid-span in a Corning Cable Systems single-tube fibe optic cable product; accommodates tubes with outside diameters of 5 mm to 24 mm

**CORNING** 



for more detailed information, visit our web site at www.tvcinc.com delivering products, knowledge, service and experience

TE7.5

TE7.6

## METROTECH

## CORNING RIBBON SPLITTING TOOL (RST)

The Ribbon Splitting Tool is designed to allow separation of 12, 24 and 36-fiber ribbons into smaller ribbons. The tool closes around the ribbon fibers as the ribbon settles into the proper slot. With actuator depressed, the tool slides along a length of the ribbon, separating the length of ribbon that is needed into smaller-count ribbons. The tool has slots to separate the ribbon into the following smaller ribbon fiber counts: 2/2, 2/4, 2/6, 4/4, 2/10, 4/8, 6/6, 12/12 and 12/24.

Description

RST-000 Ribbon Splitting Tool for separating ribbons in mid-span or at the cable end



**CORNING** 

## CORNING RIPCORD PULLER FOR OUTDOOR CABLE TOOL (RPOC)

The Ripcord Puller for Outdoor Cable Tool, when used with a suitable cordless screwdriver, can easily pull ripcords through the sheath and/or steel tape armor found in most outdoor fiber optic cables.

Description

RPOC-001 Ripcord Puller for Outdoor Cable. This tool is used in conjunction with a cordless

screwdriver (not included)



## CORNING ADVANCED TOOL KIT FOR THE FIBER OPTIC INSTALLATION PROFESSIONAL

This kit, with a pop-up handle and wheels, was designed by contractors, for contractors. It includes tools for preparing fiber optic cables, splice closures, and fiber optic hardware. The kit also includes cable cleaners, a first aid kit, LED head lamp, safety vest, safety glasses, and gloves.

Description TKT-FIBERTECH-PRO Advanced Tool Kit



This kit is designed to prepare cables and fiber for fusion splicing. It includes tools and supplies required for cable jacket removal and fusion splicing.

Description

M67-003 Fusion Splicing Tool Kit



This kit contains tools necessary to enter buffer tubes and prepare to splice. This is for craftspeople who perform only splicing, not cable prepared

Description

TKT-SPLICE Basic Splicing Tool Kit



TKT-FIBERTECH-PRO

## tidbits

## Why Proper Cleaning Practices Are More Critical For A Fixed V-Groove Machine

A core alignment splicer having v-groove alignment in the X/Y axis can easily overcome small amounts of debris in the v-grooves and provide perfect alignment of the fiber cores. With fixed V-groove splicers, poor fiber alignment prior to splicing is the #1 cause of high splice loss.

Small amounts of debris can easily cause misalignment of the fibers to be spliced and just a few microns of misalignment can impact splice loss.

## Differences In Estimation Accuracy On Fixed V-Groove Machines Versus Core Alignment

Loss estimation of any fusion splicer is based on everything the machine can see and measure.

In the case of a fixed v-groove splicer this would include cleave angles and axial alignment of the fiber cladding both before and after the splice. A fixed v-groove splicer can not account for the alignment or misalignment of the fiber core or other defects such as core step or core curve in the loss estimation

Loss estimation with a core alignment fusion splicer is more accurate than with a fixed v-groove splicer because it can account for cleave angles as well as alignment of the fiber cores and also splice defects such as core step and core curve.

Source: Compliments of AFL

## CABLE LOCATORS

## METROTECH 510™ PIPE AND CABLE LOCATOR

- Sleek, lightweight receiver
- Comfortable, upright locating
- Peak and null operation for precise locating
- Advanced compression circuitry
- Provides crisp response in congested areas
- Narrow band Antenna eliminates all interfering frequencies

Description

510 Includes Transmitter, Receiver, Carrying Case, Conductive Attachment, Ground Rod,

Anchor Cord, and Operation Manual

## METROTECH 810 PIPE AND CABLE LOCATOR™

- High frequency Jumps Insulators and Gaskets
- Excellent inductive locating
- Saves vou time simultaneous Peak/Null
- Shows you the path left/right guidance system and audible tone
- Pinpoints your utility and indicates strength of transmitted signal digital signal strength
- No manual gain adjustments fully automated

Includes Transmitter, Receiver, Conductive Attachments, Ground Rod, and 810

Operation Manual

## METROTECH 810Dx PIPE AND CABLE LOCATOR

- Single high frequency 83kHz
- Jumps Insulators and Gaskets
- Ergonomic receiver is comfortable to carry
- Distance Sensitive Left/Right Guidance™
- Simultaneous Peak and Null Display™ Real Time Continuous Gain Adjustment™
- Battery saving constant current transmitter

Description

Includes Transmitter, Receiver, Conductive Attachments, Earth/Ground Rod, Hard 810Dx

Carrying Case, Operation Manual

## METROTECH 850 AUDIO FREQUENCY LINE TRACER

- Excellent isolation from adjacent utilities
- Efficient high power 2 Watt transmitter facilitates long distance locating
- Transmitter impedance matching maximizes battery life
- Saves vou time simultaneous Peak/Null
- Shows you the path left/right guidance system and audible tone
- Pinpoints your utility and indicates strength of transmitted signal digital signal strength

Includes Transmitter, Receiver, Conductor Attachments, Ground Rod, Carrying Case, 850

Battery Charger and Operation Manual

## METROTECH 9860DLXT DUAL FREQUENCY LINE LOCATOR

- Real-Time Continuous Gain Adjustment™ and Manual Gain A First in Locator Technology
- Superior sensor technology improved accuracy and productivity
- Lighted display on all models low light operations without a flashlight Distance Sensitive Left/Right Guidance™
- Multi-Frequency 2 active & 2 passive

P/N	Description
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Includes Transmitter, Receiver with Display Backlighting, Conductive Attachment, Ground Rod, 9860DLXT Carrying Case, and Operation Manual 9860RLXT Rechargeable Transmitter Battery Option. Includes Receiver, Transmitter with rechargeable NiCd

batteries, wall mount charger, conductive attachments, operating manual, hard carrying case 9860DFXT With Sheath Fault Locating Option, Includes Transmitter, Receiver with Display Backlighting, A-Frame Receiver, Conductive Attachment, Ground Rod, Carrying Case, and Operation Manual

9860RFXT Rechargeable Transmitter Battery Option with Sheath Fault Locating Option. Includes Receiver, Transmitter with SFL frequency and rechargeable NiCd batteries, wall mount charger, A-frame receiver, conductive attachments, operating manual, hard carrying case







## **UNDERGROUND CABLE LOCATORS**

## CABLE LOCATORS

## METROTECH 9890DLXT TRIPLE FREQUENCY LINE LOCATOR

- Real-Time Continuous Gain Adjustment™ and Manual Gain A First in Locator Technology
- Superior sensor technology improved accuracy and productivity
- Lighted display on all models low light operations without a flashlight
- Distance Sensitive Left/Right Guidance™
- Multi-Frequency 3 active & 2 passive

P/N	Description
9890DLXT	Includes Transmitter, Receiver with Display Backlighting, Conductive Attachment, Ground Rod, Carrying Case, and Operation Manual
9890RLXT	Rechargeable Transmitter Battery Option. Includes Receiver, Transmitter with rechargeable NiCd batteries, Conductive Attachments, Operating Manual, Hard Carrying Case
9890DFXT	Triple Frequency Line Locator with Sheath Fault Locating Option. Includes Transmitter, Receiver with Display Backlighting, A-Frame Receiver, Conductive Attachment, Ground Rod, Carrying Case, and Operation Manual
9890RFXT	Triple Frequency Line Locator with Sheath Fault Locating Option. Rechargeable Transmitter Battery Option. Includes Receiver, Transmitter with SFL option and rechargeable NiCd transmitter batteries, wall mount charger, A-frame receiver, conductive attachment, operating manual, hard carrying case

## METROTECH I5000™ METROMARK™

The i5000 MetroMark Utility Locator combines Metrotech's advanced line locating technology and electronic marker system (EMS) detection in a single instrument. Capable of detecting and measuring the depth of all commercially available markers, the i5000 MetroMark has the added ability of reading serial numbers of programmable Marker iD's.

Access the i5000's line locating or marker detection mode with one press of the receiver's softkey. The intuitive operational display provides simple maneuvering of all the available features – frequency selection, marker selection, automatic or manual signal gain, and access to the main menu for other advanced features.

- Cable, Sonde & Marker Locator
- Electronic Marker System (EMS) Detection

Description

- Marker iD read capability
- Signal Select™

P/N

- Distortion Alert™
- Guidance Compass™

i5000 MetroMark Receiver 10W Transmitter, Ground Spike, Insulated Conductive Attachments, Operations Manual, Carrying Case

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## METROTECH CLAMPS

P/N	Description
4490 MetroClamp 4" (100 mm) Inductive Transmitter Coupler. Used With: All 9800XT (	
	9860DLXT, 9860DFXT, 9860RLXT, 9860RFXT, 9890DLXT, 9890DFXT, 9890RLXT, 9890RFXT
4820	Metroclamp 4" (100 mm) Inductive Transmitter Coupler. Used with: 510 and 810 Locators



## 3M™ DYNATEL™ 2210 CABLE LOCATOR

The 3M™ Dynatel™ 2210 Cable Locator pinpoints the exact path of underground cables and conductors. Lightweight and easy to use, the Dynatel 2210 Cable Locator quickly and accurately:

- Measures cable depth with the push of a button
- Measures relative signal current in the target cable
- Locates power cable with direct readout of cable depth

Includes 2210 Receiver, 3 Watt Transmitter, Carrying Bag

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.

## **METROTECH**





## 3M™ DYNATEL™ 2273 ADVANCED CABLE/FAULT LOCATOR The 3M™ Dynatel™ Advanced Cable/Fault Locator 2273 is a microprocessor-based system that incorporates advanced digital signal processing techniques to quickly and efficiently locate sheath (earth return) faults and trace the path of underground cables, both copper and fiber optic (with metallic trace wire). Lightweight, compact and

well-balanced, the 2273 accurately:

CABLE LOCATORS

Locates cable path Measures cable or sonde depth with the push of a button

Measures signal current in the cable

Pinpoints sheath faults and cable breaks

Discriminates between light and heavy faults Tones shorts and grounds in aerial cable

Locates energized power cable

P/N Description

Includes 2273 Receiver, 3 Watt Transmitter, 3" coupler, A-Frame Fault Locating Accessory

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## 3M™ DYNATEL™ CABLE/PIPE AND FAULT LOCATOR & CABLE/PIPE, FAULT AND MARKER LOCATOR

The 3M™ Dynatel™ Cable/Pipe and Fault Locator 2273M and Cable/Pipe, Fault and Marker Locator 2273M-iD incorporate advanced electronics to quickly and efficiently locate conductor or sheath (earth return) faults and trace the path of underground cables and pipes (with metallic tracer wire).

They provide accurate cable/pipe, or Sonde depth measurements, giving a digital readout in inches, feet and inches, or centimeters (user-selectable). Lightweight, compact and well balanced, these cable and pipe locators allow you to accurately and easily:

Locate cable and pipe path

- Measure cable/pipe, or Sonde depth with the push of a button
- Display relative and absolute signal current in the cable or pipe
- Identify cable pairs through wet sections
- Locate energized power and CATV cable

Additional features in 2273M-ID/CATV

- Pin-point conductor or sheath (earth return) faults and cable breaks
- Discriminate between light and heavy faults
- Tone shorts and grounds in aerial cable
- Locates all standard Electronic Marker System

P/N	Description
2273M-CATV/N	Includes 2273M Rece

ceiver, 3 Watt Transmitter, 3" coupler, Carrying Bag, 3 Yr. Warranty Includes 2273M Receiver, 3 Watt Transmitter, 3" coupler, A-Frame Fault Locating Accessory, 2273M-ID-CATV

Carrying Bag, 3 Yr. Warranty

Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.



## 3M™ DYNATEL™ 2220M ADVANCED PIPE/CABLE LOCATOR

A new addition to the 3M™ Dynatel™ Locators series, the 2220M Locator is designed to provide a simple and accurate solution to locate buried pipes, cables and Sondes in even the most challenging field conditions. The rugged, highly sensitive receiver uses two active trace frequencies and provides a bar graph, signal strength and direction indication to the pipe/cable.

- Two active frequencies (8 kHz, 82 kHz)
- Dual frequency output
- Passive power, Sonde locating
- Single and dual peak modes with direction

P/N	Description

2220M-C3W Includes 2220M Receiver, 3 Watt Transmitter, Carrying Bag 2220M-C3W3-CPLR

Includes 2220M Receiver, 3 Watt Transmitter, 3 in Coupler, Carrying Bag Multiple configurations available. Please check with your TVC representative or www.tvcinc.com for details.







for more detailed information, visit our web site at

## **UNDERGROUND CABLE LOCATORS**

## CABLE LOCATORS

## 3M™ 3019 CABLE LOCATOR COUPLER ACCESSORY KIT

The 3019 Accessory Kit contains a 3001 3" Dyna-coupler and a 9011 Coupler Cable with a case that can be attached onto the locator.

Description

3019 Cable Locator Coupler Accessory Kit

## 3M™ 3014 EARTH CONTACT FRAME

Used only when locating sheath (earth return) faults. It indicates direction to the fault and is color coded to correspond with the Receiver's indicator.

Description

3014 Earth Contact Frame

## 3M™ 9026 EARTH CONTACT FRAME CABLE

For use with the 3014 Earth Contact Frame for sheath (earth return) fault location; 4' in length.

Description P/N

9026 Earth Contact Frame Cable

## 3M™ 9043 GROUND EXTENSION CABLE

Extends ground capability to 12'

Description

9043 Ground Extension Cable

3014





## GREENLEE 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

P/N Description Tracker II™

## GREENLEE MARKER-MATE ELECTRONIC MARKER LOCATOR

Designed to locate buried electronic markers, including Omni Marker and Uni Marker.

- 5 ft 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

P/N Description EML100 Locator

### GREENLEE BURIED LINE LOCATOR

- LED and LCD signal strength indicators make it quick and easy to find exact line location
- 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

P/N Description **BLL-200 Buried Line Locator** 

EML100

## MARKER LOCATORS

## METROTECH 760DX METROMARK™ ELECTRONIC MARKER LOCATING SYSTEM

- Six standard marker frequencies plus two custom frequencies
- Locates all major brands and types of passive electronic markers
- Ergonomic stand alone design
- Lighted LCD display
- Ambient sensing gain control
- Variable speaker volume
- Push button depth
- Wrong marker alert

Menu driven operation P/N

760DX MetroMark™ Passive Marker Locator, Soft Carrying Case, and Operating Manual





## 3M™ 1420 EMS-ID MARKER LOCATOR/READ/WRITE

3M™ Dvnatel™ 1420 EMS-iD Marker Locators are microprocessor-based systems that incorporate advanced digital signal processing techniques to quickly and efficiently locate underground facilities even years after construction or maintenance.

Designed to be more accurate, faster and more integrated, the 1420-iD/1420E-iD EMS Marker Locators allow you to accurately and easily:

- Locate, read and write to 3M RFiD markers
- Pinpoint the depth and location of all existing models of properly installed underground passive EMS markers
- Conduct direct depth reading of markers
- Locate two different marker frequencies simultaneously
- Advanced features detect more information about underground utilities

A feature exclusive to the 1420-iD/1420E-iD Locators is the ability to read, write and lock programmed information into the 3M™ Electronic Marker System iD Ball Markers 1400 Series. Information such as a pre-programmed unique identification number, facility data, owner information, application type, placement date and other details from up to 100 markers can all be stored with date/time stamp and GPS coordinates, and transmitted back to your PC through a standard RS232 serial port for enhanced resource management.

P/N Description

1420 EMS-iD Marker Locator with iD read/write

1420E EMS-iD Marker Locator with iD read/write (CE Approved Export Model)







## FAULT LOCATORS

### **GREENLEE 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

P/N Description Pulser Fault Locato PE2003



**DERGROUND CABLE LO** 

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Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KE3.10	TE1.6 TE1.7 TE1.6 TE1.6 TE2.15 TE7.5 TE7.5 TE1.10 TE2.13 TE2.13 TE3.14 TE3.12 TE3.12 TE3.12
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE2.15 TE7.5 TE1.10 TE2.13 TE2.13 TE2.15 TE3.14 TE3.12 TE3.12 TE3.14 TE3.10 TE3.10 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE2.15 TE7.5 TE1.10 TE2.13 TE2.13 TE2.15 TE3.14 TE3.12 TE3.12 TE3.14 TE3.10 TE3.10 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit  KP260 Net-Rite™ Kit  TE3.10	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE2.15 TE7.5 TE1.10 TE2.13 TE2.13 TE2.15 TE3.14 TE3.12 TE3.12 TE3.14 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit  KP260 Net-Rite™ Kit  KT3.10  KR309 Resi-Toner™ Kit	TE1.6 TE1.7 TE1.6 TE1.6 TE2.15 TE7.5 TE7.5 TE1.10 TE2.13 TE2.13 TE2.15 TE3.14 TE3.12 TE3.12 TE3.11 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit  KP260 Net-Rite™ Kit  KF321 Testifier™ Kit  KT310  KITE1  KITE1	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE2.15 TE7.5 TE1.10 TE2.13 TE2.13 TE2.15 TE2.15 TE3.14 TE3.12 TE3.12 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit  KP260 Net-Rite™ Kit  KF321 Testifier™ Kit  KT310  KITE1  KITE1	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE2.15 TE7.5 TE1.10 TE2.13 TE2.13 TE2.15 TE2.15 TE3.14 TE3.12 TE3.12 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MoirtorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP260 Net-Rite™ Kit  KP321 Testifier™ Kit  KE321 Testifier™ Kit  KE323 Tonax™ Kit	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE2.15 TE7.5 TE1.10 TE2.13 TE2.13 TE2.15 TE2.15 TE3.14 TE3.12 TE3.12 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  HOuse Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit  KP260 Net-Rite™ Kit  KP321 Testifier™ Kit  KR321 Testifier™ Kit  L	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE2.15 TE7.5 TE1.10 TE2.13 TE8.2 TE2.15 TE3.14 TE3.12 TE3.12 TE3.11 TE3.10
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Hamlet® Adept™ A700WVA Hamlet® DigiGen Hamlet® DigiScope DS9000 Hamlet® Microflex Hamlet® MoritorScope MS9000 HiLite HJS-02 Hot Jacket Stripper HJS-03-24 Hot Jacket Stripper HOUSE Detective 20110420xx HP3-60-P4 System  I i5000™ MetroMark™ ID-H/R ID-H/R ID-L Installer's Tool Kit GLVOCKIT IntelliTone Pro MT-8200-60A I-Stop 2010838001 IVT600 TriPorter™  K KP101 ToneTracer Kit	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE7.5 TE7.5 TE1.10 TE2.13 TE8.2 TE2.15 TE3.14 TE3.12 TE3.12 TE3.11 TE3.10
Hamlet® Adept™ A700WVA.  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex.  Hamlet® MoirorScope MS9000  HiLite.  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L Installer's Tool Kit GLVOCKIT IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit KP105 Turbo-Tone™ Kit KP106 Latch-Test™ Kit KP260 Net-Rite™ Kit KP321 Testifier™ Kit KP321 Testifier™ Kit KP323 Tonax™ Kit.  L LAN ProNavigator™ 1543 LanRoamerPRO™ TP600 LanRoamer™ TP500	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE7.5 TE7.5 TE7.10 TE2.13 TE8.2 TE2.15 TE3.14 TE3.12 TE3.12 TE3.10
Hamlet® Adept™ A700WVA  Hamlet® DigiGen  Hamlet® DigiScope DS9000  Hamlet® Microflex  Hamlet® MonitorScope MS9000  HiLite  HJS-02 Hot Jacket Stripper  HJS-03-24 Hot Jacket Stripper  House Detective 20110420xx  HP3-60-P4 System  I i5000™ MetroMark™  ID-H/R  ID-L  Installer's Tool Kit GLVOCKIT  IntelliTone Pro MT-8200-60A  I-Stop 2010838001  IVT600 TriPorter™  K  KP101 ToneTracer Kit  KP105 Turbo-Tone™ Kit  KP106 Latch-Test™ Kit  KP260 Net-Rite™ Kit  KR9321 Testifier™ Kit  L  LAN ProNavigator™ 1543  LanRoamerPRO™ TP600	TE1.6 TE1.7 TE1.6 TE1.6 TE1.6 TE7.5 TE7.5 TE7.10 TE2.13 TE8.2 TE2.15 TE3.14 TE3.12 TE3.12 TE3.10

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LB68	TE3.5
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Model 9320-A Model Three™ 2011346010 Model Two™ 2010967003	TE5.6 TE5.6 TE1.1 TE1.1
Model 9320-A Model Three™ 2011346010 Model Two™ 2010967003 MS2-100 MicroScanner²	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13
Model 9320-A	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13
Model 9320-A Model Three™ 2011346010 Model Two™ 2010967003 MS2-100 MicroScanner²	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13
Model 9320-A	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13
Model 9320-A  Model Three™ 2011346010  Model Two™ 2010967003  MS2-100 MicroScanner²  MS2-KIT MicroScanner².  MT-8200-60A IntelliTone Pro  MTM400A	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13 TE3.12
Model 9320-A  Model Three™ 2011346010  Model Two™ 2010967003  MS2-100 MicroScanner².  MS2-KIT MicroScanner²  MT-8200-60A IntelliTone Pro  MTM400A  MTS400P	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.12 TE1.7
Model 9320-A	TE5.6 TE5.6 TE1.1 TE3.13 TE3.13 TE3.12 TE1.7 TE1.7
Model 9320-A.  Model Three™ 2011346010  Model Two™ 2010967003  MS2-100 MicroScanner².  MS2-KIT MicroScanner²  MT-8200-60A IntelliTone Pro  MTM400A.  MTS400P	TE5.6TE5.6TE1.1TE1.1TE3.13TE3.13TE3.12TE1.7TE1.7
Model 9320-A	TE5.6TE5.6TE1.1TE1.1TE3.13TE3.13TE3.12TE1.7TE1.7
Model 9320-A.  Model Three™ 2011346010  Model Two™ 2010967003  MS2-100 MicroScanner².  MS2-KIT MicroScanner²  MT-8200-60A IntelliTone Pro  MTM400A.  MTS400P	TE5.6TE5.6TE1.1TE1.1TE3.13TE3.13TE3.12TE1.7TE1.7
Model 9320-A.  Model Three™ 2011346010  Model Two™ 2010967003  MS2-100 MicroScanner²  MS2-KIT MicroScanner²  MT-8200-60A IntelliTone Pro  MTM400A.  MTS400P	TE5.6TE5.6TE1.1TE3.13TE3.13TE3.12TE1.7TE1.7TE4.3
Model 9320-A  Model Three™ 2011346010  Model Two™ 2010967003.  MS2-100 MicroScanner².  MS2-KIT MicroScanner².  MT-8200-60A IntelliTone Pro  MTM400A.  MTS400P  MTSC0PE MetroScope™  MTSCOPE-KIT MetroScope™  N  NC-100 NETcat®	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13 TE3.12 TE1.7 TE1.7 TE4.3 TE4.3
Model 9320-A.  Model Three™ 2011346010  Model Two™ 2010967003  MS2-100 MicroScanner²  MS2-KIT MicroScanner²  MT-8200-60A IntelliTone Pro  MTM400A.  MTS400P.  MTS415P.  MTSCOPE MetroScope™  MTSCOPE-KIT MetroScope™  N  NC-100 NETcat®.  NC-500 NETcat® 500 Pro.	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13 TE3.12 TE1.7 TE1.7 TE4.3 TE4.3 TE3.6 TE3.6
Model 9320-A  Model Three™ 2011346010  Model Two™ 2010967003.  MS2-100 MicroScanner².  MS2-KIT MicroScanner².  MT-8200-60A IntelliTone Pro  MTM400A.  MTS400P  MTSC0PE MetroScope™  MTSCOPE-KIT MetroScope™  NC-100 NETcat® 500 Pro  NC-510 NETcat® 500 Pro	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13 TE3.12 TE1.7 TE1.7 TE4.3 TE4.3 TE3.6 TE3.6
Model 9320-A  Model Three™ 2011346010  Model Two™ 2010967003  MS2-100 MicroScanner²  MS2-KIT MicroScanner²  MT-8200-60A IntelliTone Pro  MTM400A  MTS400P  MTS415P  MTSCOPE MetroScope™  MTSCOPE-KIT MetroScope™  N  NC-100 NETcat® 500 Pro  NETcat® 100 NC-100	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13 TE3.12 TE1.7 TE1.7 TE4.3 TE4.3 TE3.6 TE3.6 TE3.6
Model 9320-A  Model Three™ 2011346010  Model Two™ 2010967003.  MS2-100 MicroScanner².  MS2-KIT MicroScanner².  MT-8200-60A IntelliTone Pro  MTM400A.  MTS400P  MTSC0PE MetroScope™  MTSCOPE-KIT MetroScope™  NC-100 NETcat® 500 Pro  NC-510 NETcat® 500 Pro	TE5.6 TE5.6 TE1.1 TE1.1 TE3.13 TE3.13 TE3.12 TE1.7 TE1.7 TE4.3 TE4.3 TE3.6 TE3.6 TE3.6
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rr410 Speaker Seeker	TEO.7
rr 500 Lannoamer rP600 LanRoamerPRO™	TEO.7 .
IP600 LannoamerPRO ™	. IEO./
FDCFO TeatifierDDOIM TF1 0 TF2 1	. IEO./
FP650 TestifierPRO™TE1.9, TE3.1, FP655 TestifierPRO™TE1.9, TE3.1,	TEO./
TR-2 2011000000	TEO./
Trace-Rite™ TT250TE1.8, Teacher HTM F01	
Fracker II™ 501	. IEÖ.4
[ri-Porter™ IVT600	TEO.Z
Free10 1000000	
FS®19 1980000x	
FS®22 2280000x	TEO O
FS®22A 2280100x	
FS®25D 2550xxxx	
FS®30 3080000x	. IE3.3
TS®90 2650xxxx	
TT100 Tone TracerTE1.8,	
TT250 Trace-Rite™TE1.8, TE1.8, TE1.8, TE1.8, TE1.8, TE1.8	IE3.11
TT300 Resi-Tracer™	
Turbo-Tone™ TG201	
IV220	
TV90	
TVC Fiber Restoration Kit TVCFRK	
TVC Fiber Splice Kit TVCFSK	
VCFRK TVC Fiber Restoration Kit	
TVCFSK TVC Fiber Splice Ki	. IE7.6
U	
Jniversal Access Tool (UAT3)	. IE7.6
V	
/alidator-NT™ NT955	
/alidator™ NT950	
/C6-OPM	
/FI2	
/FL-350	
/iewConn Plus	
/isiFault	
/isual Fault Locator FFL-050	
/\$ 300	ΓΕ2.11
W	
Ni-Net WP150	
NireMaster 3274	
NireMaster Mapper 3281	
NireMaster XR-2 3254	
NireMaster XR-5 3260	
NP150 Wi-Net	.TE4.4
X	
KPro 2011332000	
KPro Lite 2011331000	. TE5.2

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## Additional TVC Product Offerings

Whether you use fiber optic cable, twisted pair or coaxial cable, TVC Communications delivers the products and technical support needed to build today's communications infrastructure. Backed by close working relationships with top manufacturers and a deep understanding of the applications and technology behind the products we sell, TVC has proven itself to be a valued partner to both the broadband cable and telecommunications industries.

In addition to our Test Equipment product selection, TVC offers a full breadth of products for your every need:

- Broadband Products
- Coaxial Cable
- Connectors & Heatshrink
- Data High Speed
- Digital Simulcast

- Digital Voice
- Drop Materials
- Fiber OpticsFTTx
- Hardware

- Headend Equipment
- Marathon
- Tools & Safety Equipment
- Twisted Pair
- Underground

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## TVC PROPRIETARY BRANDS



Available exclusively through TVC Communications, the Marathon® family of products provides exceptional quality and value. Designed to the highest specifications, including SCTE requirements if applicable, the Marathon product line includes Pole Line Hardware, Guy Hardware, Lashing Wire, Pole Banding Products, Grounding Materials, Tools & Safety Equipment and Passives.









MaxCell®, TVC's proprietary fabric innerduct, was introduced to the marketplace in 1999. Since then it has grown to be the new standard for innerduct applications in conduit housed communication networks in every market including CATV, Telecom, Military, University and Corporate Campuses, Hospitals, Power, Municipal, Federal and Aviation.



SEG is the authorized national distributor of leading vendors for the satellite, broadcast and cable industries. Additionally, SEG provides installations, field maintenance and integration services for satellite systems and networks on a nationwide basis.





TVC's Vikimatic brand of Outside Plant Products consists of diverse and original products to help provide timely solutions for a multitude of utility construction situations. Not only can Vikimatic provide custom MultiCell conduit configurations and PVC duct fittings, we can design and manufacture hardware assemblies to enable you to attach your conduit system to a bridge or tunnel.



White Sands Engineering fabricates precision custom cable assemblies used throughout communication networks. From dense bundled cabling applications at a Headend/Signal Origination Office to simple jumpers for customer premise applications, White Sands can make it.





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