

Section 18: Test & Measurement

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Test & Measurement



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Test & Measurement - Multimeters & Accessories

FLUKE

Fluke 87 Series V

Fluke 80 Series V DMMs provide 11 functions for electronic and industrial application, including high-performance DC/AC voltage and current measurement, frequency, duty cycle, resistance, conductance, continuity, diode test and capacitance measurement. Bright backlit display on all three models features 20% larger digits for easier viewing. Battery and fuse access door let you replace batteries without breaking calibration seal. 4 1/2 digit mode, 20,000-count display. Adjustable speed drive (ASD) filter, Temperature (87-5 only) for accurate measurements on motor drives. Temperature (87-5 only).



Part #	Description
Fluke-83-5	Industrial Multimeter
Fluke-87-5	Industrial True RMS Multimeter with Temperature

Fluke 170 Series

Designed tough to withstand the harshest work environments, and are accurate enough to rival most bench meters. 6000-count display for better resolution. True-rms AC voltage and current measurement for accurate readings on all waveforms. Backlight to illuminate the screen in dark workspaces (177, 179). Easy-access battery door to change the battery without breaking the calibration seal. Drop protected to 1 meter. Overmolded case features integrated probe holder. Min/Max records irregular activity. Auto and manual hold. Temperature. Comes packaged with TL75 test leads, 9V battery (installed) and manual. The Fluke 179 comes with an 80BK Temperature Probe.



Part #	Features
Fluke 175	Max voltage of 1000, true-rms, Basic DC accuracy is 0.15%, Min/Max/Avg, and optional ToolPak meter hanging kit with magnet.
Fluke 177	Max voltage of 1000, true-rms, Basic DC accuracy is 0.09%, backlight, Min/Max/Avg, and optional ToolPak meter hanging kit with magnet.
Fluke 179	Max voltage of 1000, true-rms, temperature, Basic DC accuracy is 0.09%, Min/Max/Avg, and optional ToolPak meter hanging kit with magnet.

Fluke 187 and 189 Digital Multimeters

True-rms AC, AC+DC for accurate readings on non-linear loads. Data logging with time and date stamp (189 only). 50,000-count resolution with instant readings for detailed analysis. Multiple reading display with bargraph for comprehensive analysis. Two-level backlight for easier reading in dark workspaces. MIN MAX with time stamp to record values with elapsed time. Fast MIN MAX captures peaks to 250µs. Battery and fuse access door let you replace batteries and fuse without breaking calibration seal. Comes packaged with TL71 Silicone Test Leads, probe holders, two AC72 Alligator Clips, four AA batteries (installed), CD-ROM (user's manual and technical notes) and operator's guide.



Part #	Description
Fluke 187	Digital multimeter
Fluke 189	Logging multimeter

Fluke 27 Analog/Digital Multimeter

Fluke 27 combines accurate digital and analog measurement capability with extreme ruggedness and durability. It is totally sealed, and is tough enough to withstand water, contaminants, chemicals accidental drops and severe electrical overloads.



Part # Fluke 27

FLUKE

Electrician's Combo Kit - Fluke 117 and 322 Clamp Meter

Combo kits pairs the Fluke 117 DMM with the Fluke 322 clamp, including the C115 durable soft carrying case. 117 true-rms digital multimeter with non-contact voltage detection. ToolPak Magnetic Meter Hanging Strap. TL75 Hard Point Test Lead Set.

Part # Fluke 117/322

Compact True-RMS Multimeters

For field service technicians. Auto Volt for automatic ac/dc voltage selection. Resistance, continuity, frequency, capacitance and diode test. Measures 20 A (30 seconds momentary; 10 A continuous). LoZ - low input impedance helps prevent false readings Cat III, 600v.

Part # Fluke 115



For electrical troubleshooting. AutoVolt for automatic ac/dc voltage selection. Resistance and continuity.

Part # Fluke 114



VoltAlert™ Technology for integrated non-contact voltage detection. AutoVolt feature for automatic ac/dc voltage selection. LoZ - low input impedance prevents false readings. Current measurement 20A (30 seconds momentary; 10A continuous). Resistance and continuity. LoZ - low impedance helps prevent false readings.

Part # Fluke 117



Fluke 116 HVAC Multimeter with Temperature and Microamps

Specifically designed for the HVAC professional. Includes temperature and microamp measurements to quickly troubleshoot problems with HVAC equipment and flame sensors. Use to test motor start and run capacitors up to 10,000 microfarads. Resistance, continuity, frequency and capacitance. Cat II 600V safety rated. LoZ - low input impedance helps prevent false readings. TL75 Hard Point Test Lead Set.

Part # Fluke 116



TPAK™ Meter Hanging Kit

Now you can hang your meter almost anywhere with the new Fluke TPAK accessories kit. TPAK includes a universal hanger, a magnet, and 9-inch (43 cm) and 17-inch (23 cm) "hook-and-loop" hanger straps. The universal hanger is designed to fit into the special module on the back of the meter. Allows you to hang your meter on a nail, hook or other object. You can add a piece of rope, flexible wire or cable to hang the meter in almost any position.

Part # TPAK



HVAC Combo Kit

This combo kit pairs the Fluke 116 DMM and the Fluke 62 Infrared Thermometer for productive and effective troubleshooting in one total solution, including the C115 durable soft carrying case. Also includes TL75 Hard Point Test Lead Set, ToolPak Magnetic Meter Hanging Strap, Pipe wrap thermocouple, Fluke 80BK Integrated Temperature Probe and the Fluke 80AK Thermocouple Adapter.

Part # Fluke 116/62



Industrial Electrician Combo Kit

Kit contains: 87V Industrial Multimeter, C35 lightweight soft case, 1.5m silicone leads, removable probes with 4mm of exposed metal for use on industrial circuits, retractable long reach alligator clips, magnetic hanger to position and hold meter to steel surfaces and K-type temperature probes.

Part # Fluke 87-5/E2



Test & Measurement - Multimeters & Accessories



Cases

Soft zippered carrying cases for DMMs.



Part #	Description
C25	Large Soft Case with padding and inside pocket.
C90	Soft Case with inside pocket and belt loop.
C50	Zippered carrying case with inside pocket, belt loop and inside meter strap. For 20, 50 and 70 series.

C195 Soft Carrying Case Universal

Durable soft case. Adjustable storage compartments suitable for all ScopeMeter models. Storage compartments for test leads, probes, instruction manual, power adapter and other accessories.



Part # C195



Small Sized Multi-Testers

Packed with functions, features and support to meet every application and ensure the best value. Larger displays, extra fusing (including spare fuses), safety test leads, superior Digi-Glo™ backlighting, live voltage safety tester, wrong input user warning beepers and patented new T-Shape designs.

Use for home, auto, boat, RV and workshop. Five functions/15 ranges. Smallest size. Special ranges to test household batteries. Ohms zero adjust. Holster included. AC and DC voltage is 0-500V, ±5.0%. DC current is 0-250mA, ±5.0%. Resistance is 0-2M ohm, ±5.0%. Battery test is 1.5V, 9V DC. Analog display.



Part # AM8C

Larger displays, extra fusing (including spare fuses), safety test leads, superior Digi-Glo™ backlighting, live voltage safety tester, wrong input user warning beepers and patented new T-Shape designs. Five functions/16 ranges. Auto-off saves batteries. Data hold. Protective case included. 3200-count display with analog bargraph. DC voltage is 0.1mV - 450V, ±2.0%. AC voltage is 10mV - 450V, ±4.0%. Resistance is 0.1 ohm - 32M ohm, ±2.0%. Diode test and continuity beeper.



Part # DM78B

General Purpose Multimeters

Compact digital multimeter with attached test leads for the home, school or workshop. Six functions/14 ranges. Special ranges to test household batteries. 2000-count. Holster included.



Part # DM7C

Compact autoranging meter with battery test function for home office or workshop. High resolution, 4000-count autoranger. Eight functions/19 ranges. Continuity beeper. Special ranges to test household batteries with good, not good LED. Holster included.



Part # DM9C

Digital MultiMeters

5XP Digital Multimeter

This compact full-purpose multimeter is the right choice for residential, commercial and general troubleshooting applications. Features 27 ranges/10 functions. VolTect™ Non-Contact Voltage Detector lets you instantly identify dangerous AC voltage. Magne-Grip™ holster with magnetic strap frees both hands for work. 2000-count 3-1/2 digit display and 750V AC/1000V DC. Resolution provides more precise measurements. Resistance and continuity for troubleshooting bad connections. Battery load test with 1.5 volt and 9 volt capabilities. Min/Max records minimum and maximum values. Data Hold freezes display to "hold" measurement reading.



Part # 5XP-A

15XP Digital MultiMeter

This compact digital multimeter for electronics and test applications is the right choice for electronics engineers, technicians and field service. Autoranging display for faster measurements and 2000-count 3-1/2 digit display. VolTect™ Non-Contact Voltage Detector lets you safely detect dangerous AC voltages. Magne-Grip™ Holster with magnetic hanging strap that frees both hands for work. TTL logic test for digital circuits and integrated tilt stand for easy bench use. Resistance and continuity for troubleshooting bad connections and diode test for component level troubleshooting. Data Hold freezes display to "hold" measurement reading. 750V AC/1000V DC is the highest voltage rating in this class of meter.

Part # 15XP-A

35XP Digital MultiMeter

The 35XP is the right choice for HVAC, plant maintenance technicians and residential electricians. Features include VolTect™ Non-Contact Voltage Detector, Magne-Grip™ Holster, 4000-count resolution, 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 capacitance. 0.1 µA resolution for flame sensor testing Frequency to 20 MHz. Resistance to 20 M ohms. Continuity beeper and data hold freezes display.

Part # 35XP

XR Series Digital Multimeters

Min/Max, Avg, Rel, Data Hold with 41 segment analog bargraph for measurement analysis. Includes Magne-Grip™ Holster with magnet hanging strap for hands-free operation, test leads with threaded alligator clips, manual, spare fuse and 9V battery. Autoranging, 10,000 count with 0.1% high accuracy. LCR component test functions - Inductance, Capacitance, Resistance. Frequency, Logic Test, dBm for easy circuit board troubleshooting. Bright blue backlight. CAT III 1000V, UL Listed. Three year warranty.



Part #	Description
30XR-A	Non-contact voltage tester
33XR-A	Temp and capacitance
34XR-A	True RMS with temp and backlight
37XR-A	True RMS component logic test
38XR-A	True RMS with optical PC interface
38-SWA	Data Acquisition Software
VC221B	Carry case



Test & Measurement - Multimeters & Accessories



True RMS Measuring Digital Multimeter

Heavy-duty, rugged autoranger. Ten thousand count with bargraph. True-RMS measuring. Special sealing for environment and water proofing. IP67 and MIL-SPF-28800F rated. Drop-proof special housing and PCB mounting. Extra fusing and protection from accidental overloads. Highest voltage measuring to 1500VDC and 1000VAC. Unique live voltage Safety Tester™. Exclusive, best "Digi-Glo" backlight. Menu selectable auto max, min, rel. probe hold modes. Holster included. DC voltage is 10µV-1500V, ±0.1%. AC voltage is 1mV-1000V, ±1.5%. DC current is 10µA-40mA, 1mA-10A, ±0.75%. AC current is 10µA-40mA, 1mA-10A, ±1.75%. Resistance is 1 ohm-40M ohm. Safety tester is 24, 50, 120, 240 and 480V. Diode test and continuity beeper.

Part # HD160C



Heavy Duty Digital Multimeters

Completely sealed and environment proof meters. VDC accuracy of 0.1%. Superior 1500 battery life. Temperature input (Model HD110T). DC voltage is 0.1mV - 1500V. AC voltage is 0.1mV - 1000V. AC current is 0.1µA - 2A, 0-10A. Resistance is 0.1 ohm - 20M ohm. Diode test and continuity beeper. Model HD110T temperature range is -4°F - 1999°F.

Part #	DC Current
HD110	0.1µA - 2A, 0-10A
HD110T	0.1µA - 200mA, 0-10A



Best digital multimeter for electrical and industrial field work. Special sealing for environment and water proofing. IP67 and MIL-PRF 28800F rated. Drop-proof special housing and PCB mounting. Extra fusing and protection from accidental overloads. Highest voltage measuring to 1500VDC and 1000VAC. Oversized, shock mounted LC display. Auto-power off. Unique live voltage Safety Tester™. Holster included. DC voltage is 0.1mV-1500V, ±0.1%. AC voltage is 0.1mV-1000V, ±0.75%. DC current is 0.1µA-10A, ±0.35%. AC current is 0.1µA-10A, ±0.9%. Resistance is 0.1 ohm-20M ohm, ±0.5%. Safety tester is 24, 50, 120, 240, and 480V. Diode test and continuity beeper.

Part # HD110C



Probe Style Digital Multimeter

Smallest probe style digital multimeter that allows easy, one-hand operation. AC and DC voltage to 600V. Superior 0.5% accuracy. Resistance to 34M ohm. Continuity beeper. Shipped with alligator clip, ground test lead, 2 probe tips (3" and 1/2" long) and installed batteries. 3400 Count digital display plus analog bargraph. Auto power off. UL 3111-1 approved, meets EN61010-1.

Part # DM73C



Multimeter Carrying Cases

An array of attractive and functional carrying cases and rubber holsters which will protect your digital multimeter as well as keep test leads and meters together.



Part #	Description
DC205B	Deluxe hard-shell case
DC207B	Large, deluxe hard-shell case
VC12	Padded vinyl case with carrying strap for DM2.
VC221A	Largest soft vinyl case for XT and LCR55 with holster, 220, RMS225A, 235, and all HD and 2000 Series meters.
VC30	Vinyl case for XL & CR50 with holster, XT's/LCR55 without holster, AM8, DM7, DM9, AC40A and AD40A.
VC11	Padded soft vinyl case for DM73B.

Test Bench® High Performance DMM

CE Marked and UL Listed. Audible continuity. Ruggedized case. Auto power off. Designed to meet IEC61010-1 CATIII 600V, Class 2. Accessories included are nine volt battery, test leads, instruction manual and thermocouple probe (Model 390). Three year warranty.



Part #	Description
388B	Manual ranging. DCV accuracy is 0.5%. AC/DC voltage and current. Display digits, count is 3¾, 4000. Features - capacitance measurement, transistor test, logic probe and peak hold.
389A	Auto/manual ranging. DCV accuracy is 0.25%. AC/DC voltage and current. Display digits, count is 3¾, 4000. Features - bar graph (41 segment), capacitance measurement, relative mode, min/max hold, data hold and memory.
390A	Auto/manual ranging. DCV accuracy is 0.1%. AC/DC voltage and current. Display digits, count is 3¾, 4000. Features - bar graph (41 segment), capacitance measurement, temperature probe, relative mode, min/max hold, data hold, memory and RS-232.
391A	True RMS. Manual ranging. DCV accuracy is 0.05%. AC/DC voltage and current. Display digits, count is 4½, 20000. Features - Logic probe and data hold.

50,000 Count Premium Digital Multimeter

Incorporate a special 50,000 count integrated circuit for high accuracy (0.025%), basic accuracy, high reliability design. Measure AC volts (True RMS AC, AC+DC), resistance, capacitance and frequency, in addition to dB, duty cycle, pulse width, power line disturbances and temperature. Fuse and battery access without breaking a calibration seal. Models also offer peak hold, hold, relative mode and backlight. Three year warranty. Test leads, spare fuses and instruction manual included. Basic accuracy is 0.025%. Voltage is 750VAC/1000VDC (10µV). Current is 10AAC/DC (10nA). Backlight. Frequency. Duty cycle. Event counter.



Part # 5390

Dual Display RS-232 Interface Multimeters

A Dual Display 51,000 count digital multimeter with exceptional accuracy and functionality. Offers superb performance with useful features for trouble shooting electronic and electrical circuit or to test and evaluate circuits in a field service application. Features: Five digit LCD for both the primary and secondary displays. 21 Segment analog bar graph. Automatic polarity indicator. Resistance measurements up to 500Mohms. Conductance measurements up to 50nS with 0.01nS resolution. Capacitance measurements. Frequency with ACV measurement. Data hold. dBm measurements. REL mode. 1ms Peak Hold for glitch capture. Conforms to IEC-1010-1 600V CAT IV and 1000V CAT III. CE Approved.



Part #	Features	Description
2890A	AC+DC True RMS. 0.025% Basic DCV accuracy. Back lit LCD. Frequency counter up to 20MHz. Square Wave output with 25 frequency ranges and adjustable duty cycle.	True RMS AC, AC+DC, dMb. dB Measurement. Selectable impedance. Temperature to 2502°F (1372°C) with optional TP-A. Conductance. Duty cycle. Square wave output is 16.4/4.8kHz @ 0 to 3V. Timer and signal output: max timer 99k sec @ 0 to 3V. Backlight.
2880B	0.03% Basic DCV accuracy	True RMS AC.



Test & Measurement - Multimeters & Accessories

BK PRECISION

Survivor® Multimeter

Heavy duty 1500 VDC rating. Ruggedized construction. Includes rubber boot, battery, test leads and manual. Withstands 5 foot drop. Extra large, high contrast LCD display. Gasket sealed against dirt and contaminants. Water resistant. High energy fused on all current ranges. Auto power off saves batteries. Built-in probe holders. Non-slip grip. Manual ranging. DCV accuracy of 0.5%. Display digit is 3½. Count is 2000. Large 0.8" LCD display. Extensive overload protection. Five year warranty.



Part # 2860A

Mini-Pro® Multimeters

The unique design fits easily in the palm of your hand and CE approval ensures safe operation. Manual and autoranging models offer the basic functionality needed to do 90% of most required testing. DC/AC voltage to 600V. DC current to 10A. Resistance to 20M ohm (Model 2407A 30M ohm). Diode test. Low battery indicator. CE approved. Battery, test leads and instruction manual included. One year warranty.



Part #	Display Counts	DC Accuracy	Ranging	Current	Features
2405A	2000	2.0%	Manual	10A DC	1.5V and 9V battery test; auto zeroing
2407A	3200	1.2%	Auto	10A AC/DC	Bar graph, auto power off, continuity, data hold
2408	2000	1.2%	Manual	10A AC/DC	Auto zeroing, continuity, data hold, max. hold, non-contact voltage indicator

4 1/2 Digit True RMS Bench Digital Multimeter

Provides versatility and reliability for a broad spectrum of laboratory and service applications. Being a true Multimeter it can make diode, frequency and continuity measurements in addition to basic current, voltage and resistance measurements. True RMS for accurate interpretation of any waveform signal. 4 ½ Digit LED display for clear reading in darkest environment. Great overload protection on all ranges. Voltage measurements up to 1200VDC and 1000VAC. Current measurements up to 20A AC/DC. Basic accuracy for DCV is 0.05%.

Part # 2831D

Pocket Digital Multimeter with Bargraph

Analog bargraph. 3200 count LCD display. Auto power off. UL listed. Range and Data Hold. Operating temperature is 32° to 104°F (0° to 40°C), at 70% RH. Powered by two 1.5V button type batteries NEDA 1166A or equivalent. Battery life is 250 hours. Dimensions (HxWxD) are 4.4 x 2.2 x 0.4" (112 x 56 x 11mm). Weighs 3 oz (86g) with batteries. One year warranty. Accessories included are batteries, instruction manual and case.



Part # 2700

Pocket-Sized Analog Multimeter

Compact size. Measure AC/DC voltage, DC current, resistance and decibels. Nine volt and 1.5 volt battery test. Accessories included are 1.5V AA batteries, test leads and instruction manual. One year warranty.



Part # 117B

BK PRECISION

20K Ohms/Volt Multimeter

20,000 ohms/volt DC. 28 Ranges. 3½" Mirrored scale. Tests batteries under load and transistors. Accessories included are batteries, test leads (one red and one black), transistor test leads and instruction manual. One year warranty.



Part # 114B

Tool Kit® Multimeters

Excellent meters for most jobs that require flexibility, accuracy and speed. 2000 count. 0.5% DCV accuracy. DC voltage to 1000V. AC voltage to 750V. DC current to 10A. Continuity. Diode test. Drop resistant case. Power requirements are nine volt NEDA 1604. Dimensions (HxWxD) are 5.9 x 3.1 x 1.3" (150 x 79 x 33mm). Weighs 9 oz (250g) with battery. Accessories supplied are battery, test leads, instruction manual, thermocouple probe (2706A only). One year warranty.



Part #	Ranging	Current	Features
2703B	Manual	10A DC	Basic
2704B	Manual	10A AC/DC	Transistor test and frequency counter
2706A	Manual	10A AC/DC	Transistor test, frequency counter and temperature probe
2707A	Manual	10A AC/DC	Transistor test, frequency counter and logic probe
2708	Auto	10A AC/DC	Logic probe and backlight

5 ½ Digit Dual Display Bench DMM with 0.012% Basic Accuracy

Selectable count resolutions up to 120,000 count. Bench-top field service, and system applications with a high performance to price ratio. One set of TL 36 test leads and AC 01 caps for TL 36 are included with each 5492.



Part # 5492

50,000 Count Digit Dual Display Bench Multimeter

Low cost and high performance. True RMS (AC, AC + DC). Resistance measurements up to 50M ohms. Measures frequency to 500KHz. DBm measurement. RS 232 Interface.



Part # 5491A



360 Series Test-Pro® Contractor Digital Multimeters

Sturdy ABS construction. Protective rubber boot. Sleep mode. Built-in tilt stand. Low battery indication. Overload protection. Lifetime limited warranty. CAT III - 600V.



Part #	Features
61-360	Max hold, data hold
61-361	Three phase motor rotation, capacitance, frequency
61-362	Auto/manual ranging, analog bar graph

Test & Measurement - Multimeters & Accessories



PlatinumPro® 490 Series Industrial Grade Multimeters

Data acquisition. Optical RS-232 interface. Frequency and capacitance. Auto/manual ranging. Analog bar graph. Auto power off. Peak hold. Min/max. Relative mode. Backlight. Low battery indication. Includes carrying case.



Part #	Description
61-494	True RMS, data logging (6,000 records), software and cable interface included data storage, temperature, duty factor, dBm/dB, dual display, optional software, low voltage ohm, min/max/avg, 20,000 count high-accuracy mode.
61-495	True RMS, data logging (40,000 records), software and cable interface included data storage, temperature, duty factor, dBm/dB, dual display, low voltage ohm, min/max/avg, 20,000 count high-accuracy mode, thermocouple included.

PlatinumPro® 630 Series Technical Grade Multimeters

Data acquisition. Optical RS-232 interface. True RMS. Auto/manual ranging. Analog bar graph. 0.5ms peak hold. Capacitance and frequency. Duty factor. Auto calibration. Auto hold/peak hold. Memory store and recall. Lead input warning. High/low limits. Max/min/max-min. Backlight. Auto power off. Triple display. Low battery indication and carrying case included.



Part #	Features
61-635	Extended accuracies, software and interface cable included, temperature, thermocouple included.

600 Series Pocket Meters

Low cost, multi-function. Convenient pocket size. Overload protection on all ranges. Lifetime limited warranty.



Part #	Features
61-602	Diode test
61-603	Battery test, diode test, low battery indication, built-in test stand
61-605	Auto ranging, test lead storage, audible continuity, auto power off

320 Series Contractor Grade Meters

Data hold. Auto/manual ranging. Large digital display. Capacitance and frequency. Isolated battery compartment. Auto power off. Low battery indication. Probe holder. Rubber boot with tilt stand. Overload protection on all ranges. CAT III - 1000V. Lifetime limited warranty.



Part #	Description
61-320	Standard Model
61-322	True RMS
61-324	True RMS, backlight, data acquisition and RS-232 interface

610 Series Analog Multimeters

Low-cost analog. High-impact thermoplastic case. Decibel measurement. Five year warranty.



Part #	Features
61-614	Audible continuity, battery test, built-in stand



310 Series Multimeters

IDEAL 310 Series Multimeters are versatile, feature packed and easy to use, and affordably priced. All models feature: AC/DC voltage, current, resistance, audible continuity, temperature, data hold, diode test, easy to read large numbers and symbols. 2 year warranty.

Part #	Description
61-310	Manual Ranging CAT II-600V
61-312	Auto ranging, capacitance, frequency, CAT IV-600V
61-314	True RMS, Auto ranging, capacitance, frequency, CAT IV-600V

350 Series Multimeters

IDEAL 350 Series Multimeters feature: a Non-contact voltage tester, AC/DC voltage, resistance, audible continuity, diode test, data hold, diode test, auto/manual ranging, auto power off. Limited Lifetime warranty.



Part #	Description
61-350	CAT III-600V
61-352	AC/DC current, frequency
61-354	True RMS, Auto ranging, frequency



Test Meters



Part #	Type	Description
81-011-1	Analog	Audible continuity checker with db output. hFE test, mirror scale and test leads and battery.
81-022-1	Digital	3 1/2 digits. Audible continuity test. Transistor and diode test. Test leads and battery.
81-024-1	Digital	3 3/4 digits. Data hold. Bar graph. Audible continuity test. Frequency and capacitance. Transistor and diode test. Protective holster, test leads and battery.
81-020-1	Pocket Digital	3 1/2 digits. Diode and transistor test. Protective holster, test leads and battery.
81-023-1	Digital	3 1/2 digits. Flip-up display. Audible continuity test and capacitance. Transistor and diode test. Protective holster, test leads and battery.
81-025-1	Digital	3 1/2 digits. Data hold. Audible continuity test. Frequency and capacitance. Transistor and diode test. Test leads and battery.
81-026-1	Digital	3 1/2 digits. Data hold. Audible continuity test. Frequency. Capacitance. Temperature. Transistor test. Diode test. Comes with test leads and battery.

Test & Measurement - Multimeters & Accessories



Digital Multimeters

DM-21 Digital Multimeter

Low cost general purpose multimeter. Transistor hFE. Diode test. LED test. Square wave generator. Seven function and eleven ranges. 0.8% basic DC accuracy. 3½ digit LCD, 0.55" height. Low power ohm. Overload protection. RF shielded. Polarity indicator. Low battery indicator. Tilt stand. One year limited warranty. Battery, test leads (ML-375) and operating instructions included.

Part # DM-21



DM-50 Digital Multimeter

Low cost and multipurpose. Nine functions and twenty ranges. Frequency counter. Transistor hFE. Battery tester. Diode test. 20M ohm FS. 10A DC. 0.5% basic DC accuracy. 3½ digit LCD, 0.55" height. Audible continuity test. 10M ohm input Z. Low power ohm. Overload protection. RF shielded. Tilt stand. One year limited warranty. Battery, test leads (ML-375), spare fuse and operating instructions included.

Part # DM-50



DM-59 Digital Multimeter

Perfect for workshop and school. Ten functions and thirty ranges. Frequency counter. hFE. Capacitance. Diode test. 20M ohm FS. 10A AC/DC. 0.5% basic DC accuracy. 3½ digit LCD, 0.55" height. Audible continuity test. 10M ohm input Z. Overload protection. RF shielded. Tilt stand. One year limited warranty. Battery, test leads (ML-375), spare fuse and operating instruction included.

Part # DM-59



Analog Multimeters

AM-14 Analog Multitester

Perfect for home, workshop, school and auto. Six functions and fourteen ranges. Pocket sized. ±4% basic DC accuracy. 2 1/4" mirrored scale. Jeweled meter movement. 10K ohm/V DC, 4K ohm/V AC input sensitivity. Fuse and diode protection. Battery test - 1.5V and 9v. Single rotary function/range switch. Color coded scale and panel. High impact plastic case. Ninety-day limited warranty. Battery, test leads and operating instructions included.

Part # AM-14



AM-22 Analog Multimeter

General purpose VOM. Seven functions and twenty ranges. ±4% DC accuracy FS. 4" mirrored scale. 20K ohm/VDC, 8K ohm/VAC input sensitivity. Fuse and diode protection. Ten amp DC range. 1000 volts AC/DC. Continuity buzzer. Battery test. Anti-skid pads. Ninety-day limited warranty. Test leads (ML-375), spare fuse and operating instructions included.

Part # AM-22

AM-10 Analog Multimeter

Pocket sized. Six function and ten ranges. ±4% basic DC accuracy. 2" mirrored scale. 2K ohm/V AC and DC input sensitivity. Fuse and diode protection. DC current. Resistance. Decibels. Battery test. Ninety-day limited warranty. Test leads (ML-10) and operating instructions included. Powered by 1.5V AA battery (not included).

Part # AM-10



Digital Multi-Tester

Display is 3 1/2 digit LCD .5" height, with polarity. Overrange indication is three least significant digits blanked. Maximum common mode voltage is 500V peak. Operating environment is 0 to 50°C, less than 80% relative humidity up to 35°C, less than 70% relative humidity from 35°C to 50°C. Storage environment is -15°C to 50°C. Temperature coefficient is (0 to 18°C, 28 to 50), less than 0.1x applicable accuracy specification per C. Power is 9V alkaline or carbon-zinc battery (NEDA 1604). Battery life is 100 hours typical with carbon-zinc cells, 200 hours with alkaline cells. Dimensions are 126mm long x 7.0mm wide x 24mm thick (4.96" x 2.76" x 0.94").

Part # 903-150N



Which Product Should You Use?

For current measurements above one amp, it's most common to use a clamp meter.

For measurements less than one amp, it's preferable to use a standard DMM.



Test & Measurement - Clamp Meters



AC/DC Current Clamps

Current range is 1A to 400A AC/DC. Frequency range is 45Hz to 400Hz. Bandwidth is 3kHz. Working voltage is 600V AC rms.

Part # i410



Compatible with any Fluke Scopemeter Test Tool, Power Harmonics Analyzer, Oscilloscope, Multimeter, or other voltage measurement device that has the following features: BNC input connectors or if using a meter convert the banana plugs to a BNC connector using the adapter PM908/001. Current range is 0.1 to 100A DC or 0.1 to 70A AC. Bandwidth is 1Hz to 20kHz. Working voltage is 600V AC rms.

Part # 80i-110s



Fluke 320/330 Series Clamp Meters

Small body and jaws fit perfectly in your hand and into tight places. Backlight available on most models. Controls positioned for one hand operation. Inrush current feature measures motor-starting current the way a circuit breaker or overload unit sees it (selected models). Accurate low current measurements. Auto shut-off and display hold. Includes batteries, test leads, instruction card, safety sheet and carrying case. Three-year warranty on 330 Series and two-year warranty on 320 Series. AC Amps, Ohms, AC volts, Auto-Off.



Part #	Description
Fluke 321	Hold, Compact
Fluke 322	Hold, Compact, DC volts
Fluke 333	Hold, Full size, DC volts
Fluke 334	Full size, DC volts, In-rush, Backlight
Fluke 335	Hold, Full size, DC volts, In-rush, Backlight, True-RMS
Fluke 336	Hold, Full size, DC volts, In-rush, Backlight, True-RMS, DC Amps
Fluke 337	Hold, Full size, DC volts, In-rush, Backlight, True-RMS, DC Amps, Frequency, Large jaw, MIN/MAX

Fluke 902 True-rms HVAC Clamp Meter

Heating, ventilation, air conditioning (HVAC) technicians require a service tool that can consistently keep up with their demands. The Fluke 902 expands the existing line of quality Fluke clamp meters by delivering the features necessary to diagnose and repair HVAC systems. Combined with True RMS technology and a CAT III 600 V rating, the Fluke 902 helps technicians do their jobs safely and accurately. Temperature, capacitance, DC micro amps.



Part # Fluke 902



Clamp Type Digital Multimeters

Mini-clamp DMM. Four hundred amp range. Six hundred volt AC and DC range. Four thousand count display with bargraph. Autoranging. Data hold. Auto-off. AC current is 1-400A, $\pm 2.0\%$. AC voltage is 0.1V-600V, $\pm 1.5\%$. DC voltage is 0.1V-600V, $\pm 1.2\%$. Resistance is 0.1ohm-400ohm. Continuity test. Maximum conductor size is 25.4mm (1.0").

Part # AC40B



True-RMS reading. Professional's 600A, AC-DMM. Autoranging. Data hold button. Four thousand count. Carrying case included. AC current is 1-600A, $\pm 1.9\%$ (true-RMS). AC voltage is 0.1-600V, $\pm 1.2\%$ (true-RMS). Resistance is 1ohm-40kohm, $\pm 2.0\%$. Continuity test. Maximum conductor size is 1.57" (40mm).

Part # AC65A



Clamp Type Digital Multimeters (cont.)

Top-of-the-line professional digital multimeter. Eight functions/ 11 ranges. AC and DC. Data and AC peak hold. DC auto zero. Four thousand count. Carrying case included. AC current is 1-600A, $\pm 2.0\%$. DC current is 1-600A, $\pm 2.0\%$. AC voltage is 0.1-600V, $\pm 1.2\%$. DC voltage is 0.1-600V, $\pm 0.75\%$. Resistance is 1 ohm-4k ohm, $\pm 1.0\%$. Frequency is 1Hz-20kHz. Diode test and continuity beeper. Maximum conductor size is 40mm (1.57").

Part # AC68C



Digital Ammeters

Low cost miniature digital ammeter. Four hundred amp AC range. Four thousand count display with bargraph. Autoranging. Data hold. Auto-off. AC current is 1-400A, $\pm 2.0\%$. Maximum conductor size is 25.4mm (1.0").

Part # AD40B



Broad range 1000A, AC and DC ammeter. True-RMS. Peak hold and DC auto zero. Autoranging. Four thousand count. Belt-clip sleeve case included. AC current is 1-1000A, $\pm 1.9\%$. DC current is 1-1000A, $\pm 2.9\%$. Frequency is 1Hz-10kHz, $\pm 0.5\%$. Maximum conductor size is 51mm (2.0").

Part # AD105A



AC Clamp Multimeter with Temperature

Three tools in one: clamp meter, multimeter, thermometer. Digital thermometer 1000 °F (538 °C), Type K probe included. AC/DC 750 V/1000 V and 40 MW resistance. Low DC μ Amps for flame rod detector testing. Capacitance to 4000 μ F for motor run/start testing. Continuity beeper and 4000-count large digit display. Auto power off and low battery indicator. Full overload protection. CAT II 1000 V, CAT III 600 V safety rated. One-year warranty.

Part # AC75B



Current Clamps

CT237



Part #	Description
CT235A	Input range is 2-1000A. Output type is mV. Conductor size is 31mm (1.22").
CT237A	Input range is 500mA-200A. Output type is mV. Conductor size is 19mm (0.748").
CT238A	Input range is 10mA-20A. Output type is mV. Conductor size is 19mm (0.748").



Test & Measurement - Clamp Meters



Digital Clamp-on Meter

View amperage and voltage simultaneously. Upgradeable to TRMS capability. AC and DC voltage to 600V. AC current to 400A. Frequency measurement. Diode test. Hold and Maximum reading functions. Temperature measurement. Dual display. Rubber over-molded case.

Part # ACD-14



1000A Digital Clamp-On Meter

Simple to operate and well-suited for most basic applications. TRMS upgradeable. Auto and manual ranging. Relative zero mode. Auto power off. Data hold. Carrying case included. Large, easy to read LCD display. Diode test. Audible continuity. Accommodates conductors up to 1.77" (45mm) in diameter. Safety CAT III 600V.

Part # ACD-6 Pro



Digital Clamp-On Multimeters

AC and DC voltage to 600V. AC Current to 400A. Resistance to 40M ohms with Continuity Buzzer. Capacitance to 3000 μ F. Frequency measurement. Diode test. Accommodates conductors up to 1.02" (26mm) in diameter.

Part # ACD-10 PRO



400A AC/DC Clamp-On Multimeter

AC/DC Current up to 400A. AC/DC voltage up to 600V. Resistance measurement. Continuity test. Data hold. Max/Min recording. Relative measurement. Backlight. Analog bar graph. Auto or manual range selection. Low battery indication. Accommodates conductors up to 1.18" (30mm) in diameter.

Part # ACDC-400



Digital AC/DC Clamp-On Multimeter

TRMS measurement. AC/DC voltage up to 1000V, AC/DC current up to 1000A, resistance, capacitance, temperature, continuity buzzer and diode test. Dynamic Min/Max/Avg. recording function. In-rush Peak current capture (1 mS response). Temperature measurement. Dual display of $^{\circ}$ F & $^{\circ}$ C readings.

Part # ACDC-620T



Milli-Amp AC/DC Clamp Meter

This meter was designed to measure smaller amounts of current. Ideal for quick non-intrusive current measurements. Auto power off. 4 digit LCD display. Low battery indicator. Overload protection. Measures AC/DC volts to 600V. Measures resistance to 10K ohms. One year warranty.

Part # 316



Mini AC Clamp Meter

Display hold. 4 Digit LCD display. 0.98" clamp opening. Overload protection. 600A AC range. Measures current between 5% to 100% full scale. Measures AC volts to 600V and resistance to 200 ohms. One year warranty.

Part # 312B



Mini AC/DC Clamp Meter

Display hold. 4 Digit LCD display. 0.98" clamp opening. Overload protection. 600A AC range. Measures current between 5% to 100% full scale. Measures AC/DC volts to 600V and resistance to 10K ohms. One year warranty.

Part # 313A



Models 5331A and 5330A Digital Power Clamps

These power clamps offer the capability of AC/DC power and power quality measurement. In addition to watts, VA, VAR and power factor readings, these instruments provide accurate current, voltage and frequency measurements. The unique SmartHold[®] feature allows a complete set of readings for all seven parameters to be stored and displayed at any instant. A 25 segment bargraph gives an immediate indication of analog values and ranges and allow dual parameter display in Power Factor and Frequency modes. True RMS. Integrated three phase power capability for balanced loads. Includes instruction manual, test leads and carrying case. Two year warranty. Model 5331A additional features: Peak voltage and current value measurement. Total harmonic distortion, distortion factor, crest factor and ripple measurement. Optional digital interface and Windows[®] software for data logging and digital waveform output for harmonics analysis.

Part # 5330A, 5331A



Clamp-On Multimeters

These clamps are much more than a current clamp, offering the ability to measure, voltage resistance, capacitance and even frequency. Additionally, special features allow for the recording of minimum and maximum values, peak values, test diodes and for continuity. Any one of these products can be a total measurement solution. Measures up to 2000A and 1000V. Jaw opening 2.24" (Models 330B, 350B, 369B). Low battery indication. Accessories supplied are battery, test leads, instruction manual and carrying case. One year warranty.



Part #	AC/DC Current	AC/DC Voltage	Resistance	Count Resolution	Features	Auto Off
330B	1000A/ -	750V/1000V	2000M ohm	2000	Continuity, diode, data and max hold	n/a
350B	1000A/ -	750V/1000V	30M ohm	3200	Frequency, continuity, diode, bargraph, data, peak and range hold	10 min.
369B	1000A/1000A	750V/1000V	40M ohm	4000	Frequency, capacitance, true RMS, continuity, diode, bargraph, data, peak and range hold, max/min, relative	30 min.
367A	2000A/2000A	750V/1000V	40M ohm	4000	Frequency, capacitance, true RMS, continuity, diode, bargraph, data, peak and range hold, max/min, relative	30 min.



Test & Measurement - Clamp Meters



400 Amp Clamp Meters

Measures up to 400AAC. Non-contact voltage indicator (70V - 600VAC). Tapered jaws with hook tip. Auto/manual ranging. Data hold. Auto power off. Low battery indicator. Jaw opening is 1.25" (32mm).



Part #	Description
61-732	400 Amp clamp meter
61-736	400 Amp clamp meter with true RMS

1000 Amp Clamp Meters with TightSight™ Bottom Display

Measures up to 1000AAC. Voltage-presence warning on all functions. Bright bold backlit display. Tapered jaws with hook tip. True RMS. Max/min. Peak max/min (1 ms). Audible continuity. Selectable auto power off. Data hold. Low battery indicator



Part #	Description
61-772	True RMS, 1000A (AC only)
61-774	True RMS, 1000A (AC and DC), capacitance

600A Clamp Meter with TightSight™ Bottom Display

Measures up to 600AAC. Voltage-presence warning on all functions. Bright, bold backlit display. Tapered jaws with hook tip. Max/min. Peak max/min (1ms). Audible continuity. Selectable auto power off. Data hold. Low battery indicator.



Part #	Description
61-764	Standard unit, 600AAC
61-766	True RMS, Frequency through the jaw, capacitance
61-768	True RMS, 600A AC or DC current

Current Clamp Adapters

Provide safe, easy measurement of AC/DC current. Extend the current measurement capabilities of digital multimeters.



Part # 61-451

Ground Resistance Clamp Meter

Large clamp size. Simple and fast clamp-on operation - no leads, auxiliary rods or spacing requirements. Direct measurement of ground resistance from 0.01 ohm - 1200 ohm. Direct measurement of ground leakage current up to 30 amps. Tests grounding system without disconnecting the ground rod.



Part # 61-920

4-in-1 Test Tool

Features: True RMS. Non-contact voltage. Backlight. CAT III - 1000V. 200A Current capability. Audible continuity. Diode Test. Data hold/max hold. Low battery indicator. Overload protection on all ranges. Silicone leads. Sleep mode. Compact head design. Includes carrying case. Lifetime limited warranty.



Part # 61-704

700 Series 200 Amp Clamp Meter

Audible continuity. 200A current capability. Diode test. Data hold/max hold. Low battery indication. Overload protection on all ranges. Silicone leads. Integral lead storage. Audible dangerous voltage warning. Sleep mode. Ergonomic hourglass shape. Compact clamp head. Includes carrying case. Lifetime limited warranty. Vibration mode to verify AC voltage, harmonics indicator, non-contact voltage, capacitance, CAT III - 1000V rated



Part # 61-702



710 Series Analog Clamp Meters

Large, optically clear window. 600AAC current capability. Pointer lock. Ohm scale on dial drum. Range finder symbols. Safety wrist strap. Broad frequency response - 50 to 400Hz. Includes carrying case. Lifetime limited warranty.



Part #	Description
61-561	Line splitter, direct and 10x sensitivity
61-710	Rotary Drum Clamp Meter

740 Series 2000 Amp Clamp Meter

Broad frequency response - 40Hz to 1kHz. Low battery indication. 2000A current capability. Overload protection on all ranges. Includes carrying case. Lifetime limited warranty.



Part # 61-740



Digital Clamp-On Meter

3 1/2 digits. Audible continuity test. Soft carrying case. Test leads and battery.



Part # 81-050-1

NOTES



Test & Measurement - Tone Testing



ABS™ Signal Thrower™

Works with the ABS™ Tester to locate and identify cables. Emits three different types of signals. Auto-off after 3 hours of non-use. RJ-11 modular cord and alligator clip lead sets includes. Includes 6 volt battery.

Part # 62-184



ABS™ Tester

Tone trace feature detects tracing tone signal to locate cables. Receives and reproduces telephone system dial tone. Indicates call addressing for correct telephone number. Polarity indicator tests for correct wiring and power. Volume control adjusts test and dial tones. Used for analog voice system testing and maintenance. RJ-11 modular cord and alligator clip lead sets included. Includes 9 volt battery.

Part # 62-180



TRACETone™ Tone Generator and Amplifier Probe

Test continuity and locates signal of installed wire and cable. Two selectable tone styles to meet personal preference. Tone Generator and Amplifier Probe fit together for easy storage.

Part # 62-140



Tone Generator and Amplifier Probe Kit

Cable tracing kit with advanced new features to give a complete signal tracing solution. Kit includes Tone Generator (62-160), Amplifier Probe (62-164), carrying case, cable assemblies and flat tip.

Part # 33-862



ABS™ Tester/ABS™ Signal Thrower™ Kits

Kit contents: ABS™ Signal Thrower™ (62-184), ABS™ Tester (62-180), Lead Set (K-8690), Cable Assembly (K-7919) and hard gray case.

Part # 33-852



Kit contents: ABS™ Signal Thrower™ (62-184), ABS™ Tester (62-180), Lead Set (K-8690), Cable Assembly (K-7919) and Soft Pouch (62-105).

Part # 33-854



Amplifier Probe and Tone Generator



Identifies and traces wires or cables within a group. Battery low indicator, 3 types of tone patterns, auto-off after 3 hours of non-use. Available individually or as a kits.

Part #	Description
62-164	Amplifier Probe
62-160	Tone Generator
33-864	Kit in soft black pouch

Paladin Tools®

LAN & Telecom Cable Testing Kit

Features and benefits of the RJ45 LAN Tester: True cable mapper identifies open, crossed and shorted connections and connector and cable pin-out. Clear LED display for each pin and shield. Shielded RJ45 modular plug socket. Automatic display of mapping with dual speeds: slow or fast. Features and benefits of the Tone Generator & Tone Probe Cable Tracer: Quickly and easily identify cable pair carrying a tone signal. Locate patch and termination point of wire. Audible speaker with adjustable volume control enables use without a butt set. Inductive, high sensitivity probe. Jack for headset and tone generator features an auto-off function.

Part # 1573



Test-Um

TEST SOLUTIONS BY JDSL

Ranger™ DSL-Safe Test Set

Incorporates a built-in amplified speaker, as well as new, advanced features. DigiView™ DTMF Decode allows you to see the digits as a dial-out is in progress and capture those digits. ADLI™ Auto Dial Line Identification - inbound and outbound line identification with caller ID testing. Trafixguard™ - senses digital lines and identifies under and over-voltage conditions. DSL safe. Insta-Talk™ Amplified Speaker with simultaneous intercom capability for talking while testing. Enhanced memory dialing has alpha and numeric capability. Eight-number memory. Tone and pulse dialing. Microphone mute. Last number redial - 24 digits. Electronic ringer. Modular cord set attachment. Headset for hands-free use. Auto power-off eliminates dead batteries. LCD shows: on-hook voltage, number dialed, off-hook current, set-up information, stored numbers, battery condition, continuous polarity indication, caller ID, caller waiting/caller ID and caller ID errors. Includes: Ranger™ with ADLI, bed of nails cord set LB35, mini headset LB40 and nylon pouch LB80



Part #	Description
LB255	Test set
LB255BT	Test set with boot

Lil' Buttie™ Test Sets

Hands-free test set with headset. Tone and pulse dialing. Microphone mute. Last number redial - 32 digits. Continuous line polarity indication (talk or monitor). Electronic ringer. Amplified Line Monitor for volume levels comparable to "off hook" operation. Modular cord set attachment. Low battery indicator. Headset jack. Battery powered monitor mode with auto-off on dead lines or when disconnected.



Part #	Description
LB100	Test set with piercing clip set
LB110	Test set with bed of nails cord set
LB115	Test set with bed of nails cord set and AT&T snap clip
LB110-BT	Test set with boot

Lil' Buttie Pro™ Test Sets

Telephone test with LCD readout and voltmeter. Five number memory. Technical support number programmed into memory dial. Tone and pulse dialing. Microphone mute. Last number redial - 19 digits. Electronic ringer. Amplified line monitor for volume levels comparable to "off hook" operation. Modular cord set attachment. Headset for hands-free use. Auto Power Off eliminates dead batteries. LCD shows on-hook voltage, number dialed, off-hook current, set-up information, stored numbers, battery condition, continuous polarity indication, Caller ID, call waiting/caller ID, caller ID errors and tone and pulse dialing.



Part #	Description
LB220	Test set with bed of nails cord set
LB220BT	Test set with boot
LB230	Test set with bed of nails cord set and AT&T snap clip

Test & Measurement - Tone Testing

Test-Um
TEST SOLUTIONS BY JDSU

Test-Um
TEST SOLUTIONS BY JDSU

Resi-Talker™ Test Set

Most economical test set for basic telephone system work. Tone and pulse dialing. Microphone mute. Last number redial - 32 digits. Continuous line polarity indication (talk or monitor). Electronic ringer. Amplified line monitor for volume levels comparable to "off hook" operation. Modular cord set attachment. Low battery indicator. Headset jack. Battery powered monitor mode with auto power off on dead lines or when disconnected. Set includes: Resi-Talker™ and alligator clips cord set LB31B.



Part # LB300

Professional Tone & Trace Field Kits

High Sensitivity Tone Tracer and Multi-Function Tone Generator in a nylon pouch. A closure flap protects equipment; includes both a belt loop and a metal clip ring for multiple mounting options. Kits include: Tone Tracer - High Sensitivity TT100; Tone Generator - Multi-function TG100; 7.5" cable assembly with no-fault RJ12 connectors for RJ11 and RJ45 jacks TP20; Round tip for Tone Tracer TT30; Paddle style tip for Tone Tracer TT35; Lanyard; Nylon Pouch - PC200.



Part #	Description
KP100	Cord set with alligator clips TG10

Professional Telco Field Kit

Lil' Buttie Pro™ with bed of nails cord set, High Sensitivity Tone Tracer and Multi-Function Tone Generator with alligator clips in a nylon pouch. This deluxe combo kit is the crème de la crème of our product line --in a tough nylon kit pouch with a protective flap and velcro closure. It holds all the accessories for the Lil' Buttie Pro™, the Tone Tracer and Tone Generator. Everything necessary is in one place, ready to go to work. If you are looking for the Rolls Royce of test equipment, here it is. Move up in the world with this deluxe combo kit. Kit includes Lil' buttie Pro™ - LB220; Bed of nails cord set - LB35; Mini headset - LB40; Two-piece belt clip - LB60; Tone Tracer High Sensitivity - TT100; Round tip for Tone Tracer - TT30; Paddle-style tip for Tone Tracer - TT35; Tone Generator Multi-function - TG100; Cord set with alligator clips - TG10; 7.5" cable assembly with no-fault RJ12 connectors for RJ11 and RJ45 jacks TP20; Lanyard; Nylon pouch - PC300.



Part # KP400

Turbo-Tone™ High Powered Tone Generator

Extra-long distance capability. Detect tone up to 20 miles away. Constant amplitude output for 100% signal strength all the time, no signal decrease as battery discharges. Easily hear signal through walls and enclosures. Multiple tones and power levels for all applications - CAT 5/6, signal wire, coax, and telephone cable. Unbalanced tone mode for longer distances on CAT 5/6 cables. Auto-off for battery conservation. Full talk battery and constant polarity check. Includes adapter cables and carrying case.



Part #	Description
TG200	Includes: Turbo-Tone™ with alligator clips molded cord set, 7.5" cable assembly with no-fault RJ12 connectors for RJ11 and RJ45 jacks TP20, Lanyard and nylon pouch PC150

Latch-Test™ Security/Alarm Tone Generator

A combination advanced tone generator and continuity tester for sensors, switches and circuits used in security/alarm systems. Tone generator features: two tone amplitude levels - normal and half, half amplitude is unbalanced for stronger signal on twisted pairs, CAT 5/6 cables, Three distinctly different tones selected from front panel, constant amplitude signal over life of battery for 100% signal strength all the time and auto-off of tone after three hours - no dead battery if left on. Continuity tester features: four continuity modes - normally open (NO), normally closed (NC) indication modes, either latched or direct reading, audible and visual indication of continuity results; audible can be turned of, auto-off after 30 minutes of inactivity. General features: compact, durable case with recessed control panel. High-quality silicon alligator-clips cable permanently attached. RJ jack allows use of modular cable without adapters. Battery low indicator. Lanyard attachment loop.



Part # TG300

Resi-Toner™ Home Networking Tone Generator

"Powers-up" installed telephone lines under actual load conditions with a simulated dial tone to check connectivity and proper wiring configurations without a service connection. Full-feature tone generator with 3 different tone sounds and continuity test. Generates a unique tone sequence for testing speaker installations by "popping" speakers - will work with either AC- or DC- coupled speaker types. Requires nine volt battery (not included). Includes: Resi-Toner™ with alligator clips molded cord set, 7.5" cable assembly with no-fault RJ12 connectors for RJ11 or RJ45 jacks TP20 and cord set with alligator clips TG10.



Part # TG400

Resi-Tone and Trace Kit

Includes a Resi-Toner™ and Resi-Tracer™ that work in concert to trace and identify coax, network, telephone and audio cables. Test telephone systems for clarity, and detect coax lines without disconnecting powered systems. Includes: Resi-Toner™ TG400, Resi-Tracer™ TT300, 7.5" cable assembly with no-fault RJ12 connectors for RJ11 and RJ45 jacks TP20, cord set with alligator clips TG10.

Part # KP309

Tone Tracer

Sets a new standard for field service professionals. Due to its slim, ergonomic design, as well as balanced weighting, it is the most comfortable tracer available. It can be used with either a wearable headset or a standard cell phone headset. Quick-change tips for easier in-field use. Includes low battery indicator. TT100 includes: Tone Tracer, round tip TT30 and paddle-style tip TT35.



Part # TT100

Resi-Tracer™ Tone Detector and Cable Finder

Traces all types of cable: CAT 5/6, telephone and coax. Audible and visual tone location indication. Senses speaker phasing when used with Resi-Toner™ (TG400). Traces coax cable on active systems to eliminate shutdowns. POTS testing with monitor mode and off-hook listening mode. TT300 includes: Resi-Tracer™ and round tip TT30.



Part # TT300

Trace Rite

Trace and tone detector set. Features: Built-in tone generator with 2 different tones and auto-off feature. Tone generator includes a replaceable round tip. Fine cables behind walls and ceilings. Ideal for residential or commercial use. Traces all types of cable: CAT 5/6, telephone, coax. Exceptional signal acquisition sensitivity. Audible tone location indication. Identify cabling without damaging its insulation. The tone generator handily stores inside the tracer body. Adjustable volume control. Recessed ON/OFF button prevents battery drain. Battery low indicator. Battery cap allows quick and easy battery replacement. Batteries included.

Part # TT250

Test & Measurement - Environmental Testers



Mini Infrared Thermometer

Quick and reliable surface temperature readings. Compact and portable. Single dot laser sighting system allows users to target measurements in less than a second; the large temperature display provides current and MAX surface temperatures. Protective boot and ergonomic grip. Backlit display. Fitted carrying case. Temperature range -30 to 500C (-20 to 932F). Distance to spot 10:1.



Part # Fluke 62

New Fluke 561 HVACPro

Two-in-one infrared and contact thermometer. IR thermometer for quick measurements up close or at a distance. Temp range: -40°C to 550°C (-40°F to 1022°F). Contact thermometry capability, compatible with all standard mini connector K-type thermocouples. Velcro® pipe probe included for superheat and subcooling and other contact and ambient measurements. Single-point laser sighting. Easy emissivity adjustment for measuring pipes and ducts more accurately. MIN, MAX and DIF functions. Distance to spot 12:1.



Part # Fluke 561

Infrared Thermometers

Provides quick, non-contact temperature measurement in a compact case surrounded with a protective holster. Bright laser beam provides easy targeting. Large dual display LCD display. Quality backlight illuminates the screen in the dark.



Part #	Range	Resolution	Repeatability	Battery
Fluke 61	-18 to 275°C (-0 to 525°F)	0.2°C (0.5°F)	± 2°C or ± 2%, whichever is greater	9V alkaline (included)

Fluke 60 Series Infrared Thermometers

Ideal for quick and accurate temperature measurements. Backlit display. Holds temperature readings. Log measurements to memory (66, 68)". Enhanced optics (distance to spot ratio up to 50:1) allow you to measure smaller objects from farther away. Displays Min/Max/Average (66,68). Adjustable emissivity setting (66,68). Rugged rubber overmolding. Durable plastic storage case.

Part #	Description	Distance To Spot
Fluke 63	-32°C to 535°C (-25°F to 999°F)	12:1
Fluke 66	-30°C to 600°C (-25°F to 1100°F)	30:1
Fluke 68	-30°C to 760°C (-25°F to 1400°F)	50:1

Fluke 570 Series Infrared Thermometers

Measures surface temperatures, helping to quickly locate potential blockages or malfunctioning systems reducing work and follow-up time. Backlit display. Holds last ten temperature readings and displays on bar graph. Enhanced optics (distance to spot ratio up to 60:1). Adjustable emissivity setting (all models) and 30 pre-set common material values (574, 576) for more accurate measurements. 100-data point logging for documentation (574, 576). Customizable log names, alarms and emissivity values to personalized measurements (574, 576). Software to log, graph, view photos and analyze temperature measurement locations for improved documentation (576). Durable plastic storage case.

Part #	Description
Fluke 572	Precision Infrared Thermometer
Fluke 572-CF	Precision Infrared Thermometer with Close Focus Option with minimum spot of 6mm(24 in.)
Fluke 574	Precision Infrared Thermometer with Logging SW
Fluke 574-CF	Precision Infrared Thermometer with Logging SW Close Focus with minimum spot of 6mm(24 in.)
Fluke 574-NI	Precision Infrared Thermometer with Logging SW Nonincendive
Fluke 576	Precision, Photographic Infrared Thermometer with Logging SW
Fluke 576-CF	Precision, Photographic Infrared Thermometer with Logging SW Close Focus with minimum spot of 6mm(24 in.)



GEO Earth Ground Testers

Distinctive earth ground testers that can perform all four types of earth ground measurements: 2 and 3 Pole Fall of Potential (using stakes), 4 Pole Soil Resistivity testing (using stakes), Selective testing (using 1 clamp and stakes) and Stakeless testing (using 2 clamps only). Large, clear display and oversized test buttons. For each test, the testers inform you which stakes or clamps need to be connected. Both have an IP56 rating, suitable for outdoor use. The 1625 includes advanced features: Automatic Frequency Control, R measurement, earthing impedance with 55 Hz and adjustable limited.



Part #	Description
Fluke 1625	Advanced GEO earth ground tester
Fluke 1625 Kit	Fluke 1625 kit: 1625 tester, 4 earth ground stakes, 3 cable reels with wire, 2 clamps, batteries, manual and carrying case
Fluke 1623	Basic GEO earth ground tester
Fluke 1623 Kit	Fluke 1623 kit: 1623 tester, test leads, 4 earth ground stakes, 3 cable reels with wire, 2 clamps, batteries, manual and carrying case
EI-1623	Selective/Stakeless Clamp Set for 1623
EI-1625	Selective/Stakeless Clamp Set for 1625

Carbon Monoxide Meter

Large LCD displays CO levels from 0 to 1000 ppm. Beeper triggers with increasing frequency as CO levels rise (Can be silenced in quiet environments). MAX Hold function stores and displays the maximum MCO level. Automatic sensor zeroing and self-test sequence upon start-up. Bright backlight allows easy screen viewing under dim lighting conditions. Automatic power-off after 20 minutes extends battery life. Replaceable sensor extends tool life. Includes C50 soft carrying case, battery and instruction manual.



Part # Fluke CO-220

Aspirator Kit

Contains all the components necessary to provide a clean sample. Kit includes: Stainless steel sampling tube, industrial-grade hand operated aspirator to draw flue sample, easily replaceable particulate filter and specially designed nose cap for connection to the Fluke Carbon Monoxide probe and meter.



Part # Fluke CO-205

Carbon Monoxide Probe

As an accessory to a digital multimeter with dc millivolt inputs, the Carbon Monoxide Probe displays CO level readings from 0 to 999 parts per million (ppm), with a resolution of 1 ppm and accuracy of ±5%. Detach cord and the probe acts as a stand-alone device, with an LED indicator and a beeper that triggers with increasing frequency as CO levels rise (The beeper can be turned off when silent operation is preferred). Replaceable sensor extends tool life. Includes C50 soft carrying case, battery (installed) and instruction sheet.



Part # Fluke CO-210

Temperature Humidity Meter

Lightweight, rugged and easy to hold. Backlit dual display of humidity and temperature. 99 record storage capacity. Ergonomic design with belt clip and protective holster. Quick response capacitive sensor with twist-open protective cover. Measures dew point and wet bulb. Includes 4 AAA alkaline batteries.



Part # Fluke 971



Test & Measurement - Environmental Testers



Particle Counter

Measures and displays six channels of particle size distribution. Holds 5000 logged samples including date, time, counts, sample volume, temperature and relative humidity. Data is easily downloaded using the included Windows® compatible utility software. Invaluable for IAQ investigations, allowing you to determine size distribution of airborne particles or track down a particle source. Includes: Certificate of Calibration (NIST), Windows compatible software, DB9 to RS-232 adapter and cable, isokinetic probe, high purity tubing, 1/8 in. hose barb adapter, power supply, operation manual, zero count filter, protective holster and hard molded plastic case.



Part # Fluke 983



Dual Input Digital Thermometer

This dual input digital thermometer with triple display is ideal for HVAC/R technicians, electricians, research, industrial process, quality control. Dual inputs for easy super-heat and sub-cool temperature measurements. Measures to 3200 °F/1760 °C. Accepts Type J, K, T, R, S, E inputs and relative time stamp feature. Triple display of T1, T2, T1-T2, and relative time stamp and backlight. Deluxe hard carrying case, two Type K probes.



Part # TMD90A

Environment Testers

Infrared Thermometer

Laser pointer for accurate targeting. Measuring to 500°F (260°C), front panel switchable. Narrow 10:1 field of view measures 1" at 10" distance. Large 3-1/2 digit display with backlight feature. Data hold, low battery indicator. Fixed emissivity at 0.95. Certified to meet CE EN60825 Class II for laser safety. Case is rugged valox plastic in ergonomic design for holding ease. Battery hatch cover to easily replace batteries. Shipped with carrying case, four AAA batteries installed and operator's guide.



Part # IR610A

Digital Light Meter

Measures wide range of light up to 20,000 fc or lux, front panel switchable. Accurate, high resolution of 0.01 fc/lux. Sensor dome has 45" attached cord for measurement flexibility. Built-in CIE spectrum curve for accurate human eye response. Peak and data hold. Large 3-1/2 digit display with backlight feature. Meets CE EN61326-1 certification for safety ratings. mV analog output for recording measurements. Case is rugged valox plastic in ergonomic design for holding ease. Battery hatch cover to easily replace batteries. Shipped with carrying case, extra lens cover, four AAA batteries installed and manual.



Part # LM631A

TM45 Thermometer

Ideal for HVAC/R contractor, plant maintenance or commercial building service. unique, mini-stick design thermometer. Small, go-anywhere size. Type K thermocouple compatible. °F/°C and 1° /0.1° selectable. Data and max hold. Type K bead probe and carry case with belt loop included.



Part # TM45A



Relative Humidity & Temperature Meter

This meter features relative humidity measurement from 0 to 100% and °F or °C selectable. Relative function monitors humidity and temperature changes. Large dual display of RH and temperature and built-in capacitive sensor with protective cover. Complete with carrying case, battery and wet bulb chart. Additional features are auto power off and Min/Max/Data hold.



Part # TH-3



Compact Digital Lightmeter

This instrument is a portable, easy-to-use, 3 1/2 digit, compact-sized lightmeter designed for simple one hand operation. It provides measurement in lux and fc units. Meter has a backlit LCD display, PEAK-HOLD (50mS pulse light) and DATA-HOLD feature. Operating temperature and humidity is 32°F to 122°F (0°C to 50°C) at 70% RH. Storage temperature and humidity is -4°F to 140°F (-20°C to 60°C), 0 to 80% RH with battery removed. Power supply is a nine volt battery. Battery life is 200 hours typical. Dimensions (HxWxD) are 7.5 x 2.6 x 1.4" (190 x 65.5 x 35mm). Weighs 7.76 oz. (220g). One year warranty.



Part # 615

Thermo-Hygro Meter

Compact-sized digital Thermo-Hygrometer designed for simplicity and one hand operation. It can measure and display an environment temperature and humidity in a fraction of a second. Backlight. Display and max. hold. Measurement temperature range is -4° to 140°F (-20° to 60°C). Humidity is 0% to 100% RH. Resolution temperature is 0.1°F/°C. Resolution humidity is 0.1% RH. Basic temperature accuracy is +1°F/°C. Basic humidity accuracy is +2.5% RH. Temperature sensor type is thermistor. Humidity sensor type is electronic capacitance polymer film sensor. Sample rate is 2.5 times per second. Operating temperature and humidity is 32° to 131°F (0° to 55°C), at 75% RH. Storage temperature and humidity is -68° to 131°F (-20° to 55°C), 0 to 80% RH with battery removed. Dimensions (HxWxD) are 7 x 2.6 x 1.4" (178 x 65.5 x 35mm).



Part # 625

K-Type Thermocouple

Portable 3 1/2 digit, compact-sized dual input digital thermometer designed to use external K-type thermocouples as temperature sensors. This unit can display the temperature difference between two inputs. Backlight. Display and max. hold. Temperature range is -58° to 2000°F (-50° to 1300°C). Resolution is 1°F/°C, 0.1°F/°C. Basic accuracy is +(0.3% rdg + 1°). Sample rate is 2.5 times per second. Operating temperature and humidity is 32° to 122°F (0° to 50°C), at 80% RH. Storage temperature and humidity is -4° to 140°F (-20° to 60°C), 0 to 70% RH with battery removed. Dimensions (HxWxD) is 6.1 x 2.6 x 1.4" (156 x 65.5 x 35mm).



Part # 630

Test & Measurement - Environmental Testers

BK PRECISION

Infrared Thermometer

Portable, easy-to-use three digit, compact sized infrared digital thermometer with laser pointer, designed for simple one hand operation. Meter comes with backlit LCD display, auto-hold function and auto power down (20 seconds approximately) after releasing MEAS button to extend battery life. Laser pointer. Reading hold. Adjustable emissivity. Measurement range is -4° to 1022°F (-20° to 550°C). Resolution is $1^{\circ}\text{C}/\text{F}$. Accuracy is $+2\%$ of reading or $+6^{\circ}\text{F}$ (3°C), whichever is greater. Spectral response is 6 to $14\mu\text{m}$. Emissivity is 0.10 to 1.00 by steps of 0.01. Field of view is 2.5° \varnothing at 39° ($65\text{mm}\varnothing$ at 1000mm). Sample rate is one time per second. Operating temperature and humidity is 32° to 122°F (0° to 50°C), at 70% RH. Storage temperature and humidity is -4° to 140°F (-20° to 60°C), 0 to 80% RH with battery removed. Dimensions (HxWxD) are $6.7 \times 2.6 \times 1.4^{\circ}$ ($170 \times 65.5 \times 35\text{mm}$).



Part # 635

Dual Input Digital Thermometers

Two fully functional, highly accurate meters offer dual K-type thermocouple inputs, RS-232 output port, and large LCD displays. Both units offer min/max, data hold, $^{\circ}\text{C}/^{\circ}\text{F}$ readings, auto power off. Measurement range is -328° ~ $2,498^{\circ}\text{F}$ (-200° ~ $1,370^{\circ}\text{C}$). Resolution is 0.1°F (0.1°C). Accuracy is $\pm 0.2\% \text{rdg} + 2^{\circ}\text{F}$ ($\pm 0.2\% \text{rdg} + 1^{\circ}\text{C}$). K-type thermocouple sensor type. Input protection is 60V DC or 24V rms AC maximum. Sample rate is one time per second. Operating temperature and humidity is 32° ~ 122°F (0° ~ 50°C) and 10 ~ 80% RH. Storage temperature is -4° ~ 140°F (-20° ~ 60°C). Power supply is a nine volt NEDA 1604 battery (optional adapter BE-9). Battery life is approximately 100 hours (alkaline). Dimensions (LxWxH) are $7.24 \times 2.52 \times 1.18^{\circ}$ ($184 \times 64 \times 30\text{mm}$). One year warranty. Accessories supplied are instruction manual, battery, two bead probes and carry case.

Datalogging Temperature Meter

Provides a triple LCD display that shows T1, T2 and T1-T2 simultaneously. Datalogging RS-232 port with cable and software that can log up to 16,000 data points with an adjustable interval of 00m:01s to 59m:59s. Time reading. AC adapter port. Weighs 11.3 oz. (320g).



Part # 715

Temperature Meter

Dual display where T1 and T2 can be switched between the large and small digits. While T1 - T2 is displayed on the large digits, T1 and T2 alternate on the small digits. With the optional ThermoLink software and RS-232 cable (AK-710), meter becomes a real-time datalogging meter when attached to a PC. Relative function. Avg/Max/Min readings. AC adapter port. Weighs 1.66 lbs (760g).



Part # 710

Anemometer with Wand Probe

A mechanical vane on retractable cord anemometer designed to measure airflow and air temperature. Auto power off. Data Hold. Back light display. CE approved.



Part # 731A

BK PRECISION

Sound Meter

Whether you are testing for OSHA compliance, quieting equipment, or monitoring the roar of a stadium crowd, this meter can get the job done. Provides 30 ~ 130 dB capability in three convenient measurement ranges - Low, Med and Hi - with an accuracy of ± 1.5 dB. Meets the IEC 651 Type II and includes frequency weighting A & C and fast and slow time weighting. Two auxiliary ports provide either AC output, 1Vrms full scale, or DC output, 10mV/dB. Four digit LCD, resolution 0.1 dB update cycle 0.5s. Electret condenser microphone with wind-screen. Max/min function. Low battery indication. Power supply is a nine volt NEDA 1604. Dimensions (LxWxH) are $10.83 \times 2.52 \times 1.18^{\circ}$ ($275 \times 64 \times 30\text{mm}$). Weighs 1.56 lbs. (710g). Instruction manual, battery, carrying case, calibration screwdriver and windscreen are supplied. One year warranty.



Part # 732

Temperature Adapter

This self-powered adapter turns your multimeter in a thermometer. Measurement range is -58° - 1832°F (-50°C - 1000°C). Input impedance of the meter must be at least 12k ohm, and the range must cover 0 to 1VDC (analog or digital). Uses K-type thermocouple. The TP-29 general purpose temperature probe is included. $^{\circ}\text{F}/^{\circ}\text{C}$ selectable. Measures temperature of any surface, liquid or gas. Open probe warning.



Part # TP-30B



Infrared Thermometer

Built-in laser pointer. 15:1 angle of viewability. Backlit display. Sleep mode. Measures temperatures from 0°F to 500°F (-18°C to 260°C). Five year warranty. Includes carrying case.



Part # 61-682

Stick Digital Light Meter

Wide lighting range. Remote light sensor. Cosine and color corrected. Compact and lightweight. Low battery indication. Five year warranty. Includes carrying case. Peak hold, digital and analog output, foot candle and lux measurement.



Part # 61-681

Test & Measurement - LAN

BK PRECISION

Network/PC Cable Tester

Stand-alone test device. Designed to test popular PC data cables, printer, monitor, modem, mouse extension, game, BNC coax, RJ45, 1394 and USB cables by identifying the wire connection status. Quick and easy to use. LED display. Auto and manual modes. Reverse test. One year warranty.



Part #	Power Source	Dimensions (HxWxD)	Standard Accessories
206	9V battery	1.65 x 8.55 x 5.5" (42 x 217 x 140mm)	Manual, battery

IDEAL

LANTEK® 6 and LANTEK® 7 LAN Cable Certification Testers

Sweeps up to 1 GHz. TDR capability. Permanent link testing. Link adapter fits into case. Display or remote unit can initiate Autotest, Escape and Talk feature. PCMCIA dual slot provides for CompactFlash™ external memory. USB and RS232 ports. Certifier - Basic: Soft carrying case, display/remote unit with battery, LANTEK Reporter Software, serial and USB cables, two talksets and two AC wall adapters, user manual, two Cat 6 channel adapters and reference patch cords. (LANTEK 7 also includes two category 7 channel adapters and 7 reference patch cords.) Certifier - Premium: Same as Basic with hard carrying case plus PCMCIA adapter, 32 MB compact flash, USB port flash reader for PC, two extra batteries and offline dual bay battery charger.



Part #	Description
LANTEK 6B	Certifier - Basic
LANTEK6APREM	Certifier - Premium
LANTEK7GBAS	Certifier - Basic
LANTEK7GPREM	Certifier - Premium

LinkMaster™ PRO Tester

Map, test and troubleshoot data and voice communication cable and coax runs. Tests UTP for shorts, opens, miswires, reversals, split pairs and shield continuity. Up to four different tones. Snap-off battery cap.



LinkMaster™ PRO Economy Kit

Part #	Description
33-835	Kit with unshielded jumper cables
33-836	Kit with shielded jumper cables
IA-4868	Replacement small case only

LinkMaster™ PRO Kit



Part #	Description
33-825	Kit with unshielded jumper cables. Includes 8 remotes.
33-826	Kit with shielded jumper cables
H-3324	Replacement large case only

Accessories

Security Kit - 8 position modular adapter and 8 RJ-45 to alligator clip lead sets

Part # LA-4157

IDEAL

MiniTracker™ Tester

Identifies, or "maps", different cable end points and cable runs within a structure by identifying remote terminator color code. Tone Mode can be used to send a tone signal on coaxial cable for tracing. Designed specifically for cable TV, security video, broadcast and building/home automation system applications. Single run/multi-run testing ability. Includes 4 F-type terminators.



Part # 62-202

LinkMaster™ Tester

Tests wiring configurations on UTP/STP cables for split pairs, opens, shorts, reversals and miswires. Shield detection feature tests cable shield integrity.



Part # 62-200

LinkMaster™ Pro XL Tester

Advanced version of the LinkMaster PRO™ that adds the following features: blinks the hub, backlit LCD screen, displays length measurements with test results, remotes have both RJ-11 and RJ-45 jacks.



Part #	Description
33-880	LinkMaster Pro™ Kit with 8 remotes
33-881	LinkMaster Pro™ Kit with 8 remotes & ABS Tester
33-887	LinkMaster Pro™ Economy Kit with 1 remote

SIGNALTEK™ Cable Qualification Tester

Qualify the performance of twisted pair cable lengths for 10/100/1000Mbps service. Know whether installed cable is capable of handling data without loss for today's demanding applications and environments. One button Autotest simplifies test procedures. Stores 20,000 tests internally, prints results directly to a USB printer. Export and view results in XML format. Simple test organization and storage of results allows installers to have proof that their installations were done correctly. Combines many of the features of an economical wiremapping product and a professional certification tester into one powerful and easy to use tester.



Part # 33-974

Paladin Tools®

SoHo Cable-Check™

Combination tester designed for smart home installations to test continuity of network and coax cables. Tests RJ45 patch cords and network installations to identify good connections, opens, shorts or cross-connections. Identifies data and telephone connection schemes. Maps cable pin-out. Tests continuity of patch cords and installed cable runs. Identifies good connections, opens and shorts. Easy-to-use with clear LED read-outs. Includes: 2 RJ45 patch cords, 75-ohm male terminator, cable TV "F" female adapter, 9V battery and durable nylon carry-case.



Part # 1578

Paladin Tools®

PC Cable-Check™ Pro

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. Rubber feet to prevent slipping. Rugged case now with built-in handle. 9V battery included.

Part # 1577



LAN ProNavigator™ Network Data and Coaxial Cable Tester

Two-piece tester includes main unit and remote with results at both ends. One button, simple testing (PASS/FAIL or fault find). Traces wires with tone and remote lights. Quick fault analysis on coax and data cables. CAT-5 or CAT-6 (UTP/ STP) cable testing. Detects opens, shorts, crossed wires and split pairs. Compact and lightweight. Comfortable to hold. Designed and manufactured in the USA. Test status at both ends (main unit and remote).



Part #	Description
1543	LAN ProNavigator test set (main & remote), 2 RJ45 patch cords, 2 belt clips
901066	LAN ProNavigator test set (main and remote), 2 RJ45 patch cords, 2 BNC coaxial cables, 2 CATV "F"-to-BNC adapters, 1 BNC/BNC adapter, 1 shielded RJ45 coupler, 2 belt clips in durable case

LAN Cable-Check™

This continuity tester for UTP, STP and flat satin cables with RJ45 terminations tests both data and telephone connection schemes including patch cords and installed cables. This tester identifies good connections, opens, shorts and cross-connections. Identifies cross-over telephone connections. Slow or fast scan speeds. Two (2) RJ45 patch cords, 9-volt battery and a durable nylon carrying case with belt loop included.

Part # 1574



Data/Link ID & Cable-Check™

This handy unit is a multi-purpose continuity tester and network identifier. Tests both data and telephone connection schemes, including patch cords and installed cables to identify good connections, opens, shorts and cross-connections. Identifies data and link transmission speeds with real time detection: 100 MB and 10 MB. Detects the following: PC (NIC) and HUB data transmissions and PC (NIC) and HUB NLP or FLP link pulse. Slow or fast scan speeds. Two (2) RJ45 shielded patch cords, 9-volt battery and a durable nylon carrying case with belt loop included.

Part # 1576



Modular Continuity Link Testers

Link Tester for RJ11 & RJ45 Mod Cord

Part # PT-LK-TEST-6/8



Remote Cable Testers

For wires continuity, miswiring and polarization in your network cables, thin Ethernet (BNC) / 10Base-T (UTP/STP) 356A / TIA-568A / TIA-568B & Token Ring. Using the attached remote terminator can easily test the cable before or after the cables are installed. Also allows testing of the ground of Shielded Twisted Paired Cable. The Test Jacks are a BNC Female and a RJ-45.

Part # TSR-NETCBL



Test-Um

TEST SOLUTIONS BY JDSU

Tri-Porter - Network Qualification & Testing Tool

Provides a full range of physical wiring tests for the fast, efficient delivery of IP-based voice, data and video services in the home or small office with one integrated tool. Tri-Porter replaces up to 6 traditional testing tools. Testing and verifying IP-based services in your customers' premises now takes less time and is more convenient and economical than ever before. Coax runs, network systems and voice/telephony lines are all easily tested and verified for service levels to assure optimal performance. Comes with a handy carrying case, which holds both the main unit and the remote tester/tracer, along with the 20-piece wiremapping sets for remote discovery of telephone, coax, and network cables.

Part # IVT600



LanScaper™ Network Tester NT700

Identifies port services including Ethernet, ISDN, POTS, and Token-ring while reporting such crucial information as network speed, capability, and location of other network devices. Pinging function verifies connectivity to network devices and queries PC/NICs. Detects legacy "Phantom Power", reports current and voltage capability of analog telephone lines, identifies (maps) remotes while cable testing. Conducts link tests to ID speed. Verifies functional speed capability of terminated unconnected cable runs by sampling data packets between two LanScaper™ units, which exercises the run and reports the result. Automatically accesses DHCP host and obtains network information. Tests cabling configuration and verifies connectivity and length of run while conducting tests for opens, shorts, miswires, split pairs, and reversals. Identifies HUBs, NIC, or auto MDI/MDI-X devices. Blinks HUBs to ascertain connected configuration. Displays advertised network speed/duplex. Measures and reports any voltage on lines. Wiremaps network connections with remote identifiers. Generates multiple tone levels for signal tracing and cable identification.

Part # NT700



Tell-All Indicator

Identifies telephone and data lines. Identifies 10Base-T, Token Ring and 100Mbit Systems. Includes a built-in battery. Detects voltage and polarity.

Part # TP100



LanScaper™ Kit

Includes LanScaper™ and remotes #1-#8, Tone tracer, 12" cable assembly; RJ45 to alligator clip set and 2 pieces TP40, unshielded RJ45 connectors and 2 pieces TP56, RJ45 to F connectors, 7.5" cable assembly with no-fault RJ12 connectors for RJ11 and RJ45 jacks and carrying case.

Part # NT750



Resi-Tester™ Whole-House Cable Tester

Designed exclusively for all the wiring environments found in Home Networking and Home Automation. CATV, telephone systems, audio cable, security/alarm wiring, and network cabling can all be tested and located using the Resi-Tester™ and optional room identifier sets. Resi-Tester™ displays cabling results using a large easy to read LCD with clear concise information showing all the faults connected with the various cable types. It warns of voltage on lines and shows a Pass or Fail message after each test.

Part # TP300



LanRoamer Tester/Analyzer

Cable test results displayed on main unit and remote unit, in less than 2 seconds after plugging in the cable. Auto-on and auto-off when testing cables, just plug both ends into tester! Snap-together case for easy storage and convenient patch cable testing. Tone generator mode for use with tone tracers. Test for short, opens, miswires, reversals and split pairs.

Part # TP500



Test & Measurement - LAN



Validator™ Network/Cabling Certifier NT950

Tests to TIA 568/570 interconnect standards. Certifies CAT5, CAT5E, and CAT6 cables to be IEEE compliant to one gigabit speed. Tests coax, telephone, audio, and security cables. Powerful Plan-Um™ design software included. Creates and prints job reports. Wiremap new or existing cable systems. Simple to use. The kit includes: Validator™, Smart Remote, (2) lithium ion rechargeable long-life batteries, (2) AC adapter/charger units, (4) adapter cable assemblies, USB cable assembly, compact flash card, Plan-Um™ design layout software and deluxe carrying case with cushioned sides.



Part # NT950

Validator-NT™(NT955)

Tests interconnect specifications per TIA 568/570, including opens, shorts, miswires, split pairs, etc. Validator NT™ Main Unit and Smart Remote, 2 lithium ion rechargeable long-life batteries, 2 AC adapter/charger units, Test Connectors 8-position shielded modular jack (data), 6-position modular jack (telephone), F-coax (video), and dual banana jack (security, speaker, etc.) USB cable assembly, 64MB Compact flash card, Plan-Um™ design layout software, Cable Certification Labels (roll of 100), Set of 8 network remote identifiers, and 2 Sacrificial Cable modules (RJ 45). Deluxe carrying case with cushioned sides.



Part # NT955

LanRoamerPRO™ Kit With 8 Remote Identifiers

Kit includes LanRoverPRO™, remotes #1-#8, 12" cable assembly, RJ45 to alligator clip set TP40, RJ45 to coax adapter, 12" assembly, unshielded RJ45 connectors, wire configuration sticker, laminated quick reference card and carrying case.



Part # TP607

LanRoamerPRO™ Tester/Analyzer

Measures cable length as a stand-alone function. Test for short, opens, miswires, reversals, and split pairs. Identifies multiple faults clearly without interpretation. Clear wiremapping form displayed in 2-line, 16-character LCD display. Auto-off/Auto-on - Up to 10 times better battery life than others testers. On-ended testing with Pre-test mode for fast results. Built-in tone generator with selectable tones and pair capability.



Part # TP600



Testifier™

Condition: Testifier shows Opens, Shorts, Miswires, Split Pairs, PASS and FAIL results fast - on a clear, full alpha/numeric LCD display. Location: Testifier is supported by the most comprehensive set of wiremapping locators in the world. Up to 20 cable end locations at a time can be identified and tagged. Position: Testifier's built-in tone generator is the most flexible and function-packed tone generator you will ever use. Its configurable signal can be generated to find and fix the position on any type of cable - either exposed or hidden, in ceilings or behind walls. Testifier™ represents the best of 21st century testing technology.



Part # TP350

Coax Mapper

Designed for testing CATV and security camera coax connections and installations. Finds and identifies multiple coax cables. Includes four color-coded F-connectors and BNC adapters and a built-in tone generator.



Part # CX200

Ethernet Cable Tester

NetRite. Low cost. Extremely easy to use. No buttons—Auto-off, Auto-on. Just plug-in an ethernet cable to the main unit and remote—it is tested for opens, shorts, split pairs, miswires and reversals. Removeable remote enables testing longer cable runs terminated in different areas. Tests up to 1000 ft! Full LCD display shows all test information clearly. Shows cable faults per TIA568 specifications. Batteries included.



Part # TP250

Plan-Um AP Software

Make every cabling installation more professional and profitable with Plan-Um® AP software. Makes any cabling installation, either existing or new, better documented and better designed. Layout and document your cabling projects easier than ever. Layout your customers' residential and/or commercial floorplans in minutes. Or import AutoCad or Visio images of existing site drawings. Print the layout and cable test schedule, for the customer or your records. Print custom labels to identify cable runs as you test them. Compatible with Brother label printers.



Part # PS150

Test & Measurement - Circuit Voltage Testers



Fluke T-Series Electrical Testers

Fluke T5 Voltage, Continuity and Current Tester. Excellent front-line troubleshooting and measurement tool. Available in 600 V and 1000 V models. Digital display. OpenJaw™ current measurement. Rotary switch selects volts, amps and ohms functions. Heavy duty test leads. Includes detachable probes and instruction sheet.



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



Volt Alert™ Voltage Detector

Easy to use - just touch the tip to a terminal strip, outlet or cord. When tip glows red and the unit beeps, there's voltage in the line. Quickly test for energized circuits and defective grounds on the factory floor, in the shop or at home. The 1AC-II continually tests its battery and circuit integrity with a periodic double flash visual indication using Fluke Voltbeat™ technology. The 1AC-II and 1LAC-II are Cat IV - 1000 V overvoltage rated products for added user protection. Two year warranty.



Part #	Description
Fluke 1AC-A1-II	AC V Detector 90-1000V
Fluke 1LAC-A-II	Low Voltage Detector 20-90V AC
Fluke 1AC-A1-II-5PK	volt Alert, 5-pack



Test & Measurement - Circuit Voltage Testers



ST101 Socket Tester

Features include fast, easy socket test and easy to read light indicators. Confirm proper wiring and operation of AC socket. GFCI circuit trips to confirm tester is working. For use on 110-125 V AC.

Part # ST101A



ST102 GFCI Socket Tester

Test GFCI breakers for proper wiring and operation with this socket tester. Easy to read light indicators show common wiring problems. Confirm GFCI socket is wired for protection. GFCI circuit trips to confirm tester is working. For use on 110-125 V ac.

Part # ST102A



VT101 Voltage Tester

Features include bright neon light indicates AC voltage and identifies AC Voltage from 90-500 V AC. No battery needed. Tests 2 wire and 3 wire AC outlets.

Part # VT101A



VT102 Voltage Tester

Features include 4 bright neon lights indicate AC voltage, 4 ranges indicated from 110 V to 460 V AC. No battery needed. Tests 2 wire and 3 wire AC outlets.

Part # VT102A



VT201 Non-Contact Voltage Detector

Safe non-contact detection of voltages from 70 V to 440 V AC. Both visible and audible indicators. Detector emits loud audible chirping that changes pitch based on probes proximity to the AC voltage source. Bright flashing LED also indicates presence of AC voltage. Batteries included.

Part # VT201A



Tic Tracers - AC Voltage Detectors

Used to check fuses, breaker panels, power outlets, load break connectors, transmission lines. Operating temperature is 32°-125°F (0°-52°C). UL, CE and MSHA approved.



Part #	Features
TIF100	AC Voltage: 30-1500 AC
TIF300CC	AC Voltage: 30-1500 AC, Capacitance: 0-100 mF, Continuity: 0-1m ohm
TIF300HV	AC Voltage: 30-121,000VAC. Hot Stick: TIF410.

Non-Contact VoltProbe®

Detects AC voltage (110-600V). Uses non-contact method of voltage testing. Totally insulated, no exposed metal or conductive parts. Checks for AC voltages without necessity of disconnecting the electrical system. Tests for AC voltage cables, circuit breakers, wall sockets, junction boxes, fuses, etc.



Part # VP-440

Hot Stick

Made to provide you with extra safety and protection when working near high voltage circuits or equipment. Built with a two-piece 'snap-in' construction, which covers both 36 to 48 inches in length.

Part # TIF410A



Phase Sequence & Motor Rotation Tester

Used to assure proper and safe connection of the electrical equipment on three-phase systems. Phase voltage loss or voltage sag indication. Check for normal or reversed phases. Three phase motor rotation indication (PRM-3 only). Extremely simple to use. CAT III 600V.



Part #	Description
PRM-2	100-600 V
PRM-3	50-600 V

Continuity Tester

Bulb lights when circuit is completed. For use with unenergized circuits.

Part # PY-11



Model HV-44A

A self-contained instrument that measures high DC voltages up to +40KV. This probe is typically used to measure high voltages in TV sets, power supplies, laboratories and for general high voltage commercial applications. Input impedance is 600M ohm, nominal. Accuracy is ±3% of full scale. Calibration is internal, factory calibrated at 25KV. Size is 16.5 x 2.125 x 2" with a 34" long ground cord (419 x 54 x 50mm with a 86.4 cm long ground cord). Probe tips: two interchangeable tips; one round needle type and one special flat spring type for easy access to CRT anode. One year warranty.

Part # HV-44A



Automatic Circuit Identifier with E-Z Check® Plus

Works on 120/240VAC circuits. Receiver has a non-contact voltage sensor for 80-300VAC built in. Positively identifies circuit breakers and fuses without service interruption. Hand-held receiver. Visual and audible indicators. Five year warranty. Microprocessor controlled sensitivity level, verifies proper wiring and checks GFCI operation.

Part # 61-534



Power-Glo™ Testers

Tests for voltage from 40V to 440VAC. Locates breaks along live, insulated wires and power cords, checks for energized AC circuits, distinguishes polarity and detects leaks in underground devices. Illuminates brightly for quick, accurate test results. Audible voltage detection (61-061). Five year warranty.

Part #	Description
61-060	Power-Glo™ Pocket Tester
61-061	Power-Glo™ Audible Pocket Tester



Volt Sensor Pocket Tester

Checks non-contact voltage from 40 - 600 VAC. Audible and visual indication. Tests for energized circuits. Over-molded rubber cushion grip. Compact rugged housing.

Part # 61-063



Test & Measurement - Circuit Voltage Testers



Split Jaw™ Smart Meter

Automatically senses and displays V, A or Ohms. No dial to set - easy to use. Cat IV-600V. Measures 0-200AAC and 0-600V AC/DC. Audible continuity. Data hold and integral lead storage. Replaceable test leads. Auto power off and low battery indication.

Part # 61-096



SureTest Circuit Analyzer

Super bright OLED display. Features arc fault testing, true RMS, voltage drop (12, 15, 20-amp load), line voltage, peak voltage and frequency. Also features ground impedance, hot and neutral conductor impedance and ground-neutral voltage. Identifies proper wiring in 3 wire receptacles and false ground. GFCI testing.

Part # 61-165



Vol-Con XL® Tester

Extremely rugged and reliable three-in-one tester. Vibrates when voltage is present. Tests for high voltage up to 600V AC/DC. Tests for voltage as low as 6V AC/DC. Automatic switching continuity tester. Replaceable leads with shielded probe tips. Bright, long-life LED and neon indicators. Five year warranty.

Part # 61-086



Wire Sorter

Easily sorts up to six single or six pair of unpowered wires with or without a known ground path. Quickly identifies unmarked wiring. Locates proper wiring in bundled groups. Works on non-energized circuits. Five year warranty. Includes TL-65 lead set.

Part # 61-530



Test & Measurement - Insulation Testers



Fluke 1550B MegOhmMeter™

Measures up to 1 Tera-Ohm. Guard system eliminates the effect of surface leakage current on high-resistance measurements. Measures cable or insulation capacitance and leakage current. Automatically stores test data in up to 99 locations. High-capacity rechargeable batteries. Includes Quicklink 1550B software and optical interface cable for downloading to a Windows® PC. Custom soft case for tester and accessories and includes heavy-duty leads, probes and alligator clips with a two year warranty.

Part # Fluke 1550B



Insulation Testers (Megohmmeters) (cont.)

Test insulation resistance. Measure AC voltage to 600V. Battery powered. Includes batteries, carrying case, test leads and instruction manual.



Part #	Description
300	1000V, 2000M ohm
305	500V, 1000M ohm



AMB-45 MegaTest 1

Digital Megohmmeter-Insulation Resistance Tester. Tests insulation of wires, cables, transformers and electrical motors. Comes as a complete kit including test leads and PC software. Selectable test voltages up to 1000V. Data download to PC. Safety CAT III 600V.

Part # AMB-45



Selectable 250V, 500V or 1000V insulation testers. Low resistance test. Extra rugged integral carrying case. Live circuit indicator warns of safety hazard. Push to test. Includes batteries, integral carrying case with strap, test lead and instruction manual.



Part #	Description
307	1000V, 200M ohm
308	1000V, 2000M ohm

Analog Megohmmeter-Insulation Testers

Tests insulation of wires, cables, transformers and motors. Battery powered. Helps cut unscheduled downtime and reduce shock hazards. Sensitive Ohmmeter for checking resistance of motor windings (AMB-1A and AMB-2). Built in voltmeter. Battery OK test. Mirror scale. Automatic discharge of equipment capacitance for safe removal of test leads.



Part #	Description
AMB-1A	Insulation Tester
AMB-2	Insulation resistance with 250VDC test voltage: 0-50M?
AMB-3	Insulation resistance with 500VDC test voltage: 0-1000M?



3-Pole Megger® Earth Resistance Tester

Features include 2 & 3 point fall of potential methods and easy rugged weatherproof case. Includes terminal shorting bars. Optional lead set - 61-798. Ground resistance measurements. Auto ranging and auto power off. Single push button operation. Rugged weatherproof construction.

Part # 61-788



Insulation Testers (Megohmmeters)

These insulation testers are intended primarily for periodic testing of industrial motors, transformers, electrical wiring and cable insulation for signs of deterioration. Low readings may indicate impending failure and permit replacement during routine maintenance rather than risking production downtime. Also useful for safety testing of TV sets and appliances to assure no hazardous leakage current. One year warranty.

MEGGER® Hand Held Insulation Tester

Battery powered - no need to hand crank. Test voltages 250/500/1000V. Digital display with analog arc. Auto power off. Protective rubber boot. CAT III-300V. Carrying case included.

Part # 61-791



Test & Measurement - Audio/Video Testers

BK PRECISION

Portable HDTV Pattern Generator

Delivers accurate test patterns for the testing of the most common HDTV displays. It is a must for TV repair engineer or technicians to test and calibrate digital televisions, Video Engineers to test and maintain studio equipment or Home Theater Installation Technicians to fine-tune the picture quality of digital televisions. A unique feature is the Overscan DVD Aspect Ratio pattern. This feature covers the most commonly use aspect ratios used for all movies recorded to DVD media.



Part # 1253

IDEAL

MiniTracker™ Tester

Identifies, or "maps", different cable end points and cable runs within a structure by identifying remote terminator color code. Tone Mode can be used to send a tone signal on coaxial cable for tracing. Designed specifically for cable TV, security video, broadcast and building/home automation system applications. Single run/multi-run testing ability. Includes 4 F-type terminators.



Part # 62-202

IDEAL

VDV MultiMedia Cable Tester

Easy-to-use tester for installers working with voice, data and video applications. Tests for opens, shorts, miswires, reversals and split pairs. Also indicates correct wiremap. Automatic shut off and low battery indicator. Easy to read LCD display with "PASS or FAIL" indicator after each test. Tone generator supports 4 different tones. Identifies voltage on cables. One remote wiremap and testing unit is stored inside tester. Uniquely designed remote accommodates RJ-11, RJ-45 and F-style connectors. Can support up to 8 unique remotes that wiremap and test ports - more efficient for one person testing.



Part # 33-856

SecuriTest™ Multi-Function Security Camera Tester

Multi-purpose, all-in-one tester performs the following functions: CCTV Field Monitor, Video Signal Generator, PTZ Controller and protocol analyzer, Digital Multimeter functions, UTP Cable tester. This unique, portable, lightweight unit saves installers time and money when installing and troubleshooting CCTV cameras.



Part # 33-891

Test & Measurement - Universal Device Programmers

BK PRECISION

Universal Device Programmers

Fast and reliable. Extensive chip libraries are constantly being updated with the latest chips. Successful programming with IC vendor approved software. Auto search device select function supports E(E)PROMs and Flash Memory. Full Screen Menu operates by simple keystroke commands. Automatically configures for host parallel port. Supports JEDEC, Intel Hex, Motorola S Records, Binary Tektronix Protocol and ASCII file formats with File Load/Save commands. Optional adapters for surface mount devices. Interface is parallel port. Accessories included are AC power card, parallel printer cable and instruction manual. Device functions are blank check, read program, verify, checksum, encryption and erase. Buffer features are view/edit, clear, fill, move, copy, checksum, file load and file save.



Part #	Devices Supported	Device Library	Programming Socket .300-600 Pin Spacing
844A	EPROM, EEPROM/Flash, Serial EPROM, Microcontroller, PLD	>10977	40 pin DIP ZIF
848A	EPROM, EEPROM/Flash, Serial EPROM	>6187	32 pin DIP ZIF
864	EPROM, EEPROM/Flash, Serial EPROM, Microcontroller, PLD and BPROM	>14658	48 pin DIP ZIF
865	EPROM, EEPROM/Flash, Serial EPROM, Microcontroller, PLD and BPROM	>16628	48 pin DIP ZIF

BK PRECISION

EPROM Eraser

UV-EPROM eraser featuring small dimensions, high erasing efficiency and simple operation. Up to five EPROMs in 40-pin DIP packages can be erased simultaneously. A built-in timer is preset to an optimum erasing period. One year warranty. Timer setting is 15 min. 12VDC/500mA (AC/DC adapter included). UV bulb wattage is 4W. Accessories supplied are AC/DC adapter, pad and manual.



Part # 850

Deluxe EPROM Eraser

Heavy duty EPROM eraser that can simultaneously erase up to 40 twenty-four pin EPROMs. It is constructed of an all-metal case plus an advanced designed chip drawer that prevents UV radiation from being a hazard to the user. The chip drawer is lined with conductive foam to prevent electrostatic damage to the chips. Indicator light when erasing. Power safety switch inside the drawer shuts off unit whenever the drawer is opened. Large capacity. One year warranty. Timer setting is 0 - 60 min. 100-120VAC 50/60Hz. UV bulb wattage is 10W. Accessories supplied are AC power cord and manual.

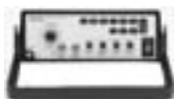


Part # 851



Bench-Top Function Generators

Three MHz function generator. High feature, low cost. Easy push-button selection power, range, and waveform. Square, triangle, sine wave, and TTL/CMOS outputs. Duty cycle and DC offset control VCF input. Includes test cables and spare fuses. Range is 0.3 Hz to 3MHz, $\pm 5\%$ of full-scale. Main output is 20Vp-p open circuit, 10Vp-p into 50 ohm load. DC offset control is -10V to +10V (open)/-5V to +5V (50 ohm load). Duty cycle is 80% : 20% : 80% cont. variable. VCF input is (0V to $\pm 10V$) $\pm 1V$ input for 100:1 ratio. Input impedance is 10k ohm $\pm 10\%$. Also available in 220 version as FG2CE.



Part # FG2C

Three MHz sweep/function generator. Best value combination generator. Square, triangle, sine wave, and TTL/CMOS outputs. Amplitude or frequency modulation. Linear and logarithmic sweep modes. Built-in, 6 digit display 150MHz frequency counter. Duty cycle, VCF, and DC offset control. Includes test cables and spare fuses. Range is 0.3 Hz to 3MHz, $\pm 5\%$ of full-scale. Main output is 0.3Hz-3.0MHz, 20Vp-p open circuit, 10Vp-p into a 50 ohm load. DC offset control is -10V to + 10V(open)/-5V to +5V (50 ohm load). Duty cycle is 1:1 to 10:1 continuously variable. VCF input is (0V to $\pm 10V$) $\pm 1V$ input for 100:1 ratio. Input impedance is 10 k ohm, $\pm 5\%$. Also available in 220V version as FG3CE.



Part # FG3C

True RMS, 4-1/2 digit and 20,000-count multimeter. AC or ac+dc input coupling. High accuracy, basic V dc 0.03%. Voltage to 1200 V dx, 1000 V ac. Current from 10nA to 20 A. Resistance from 10 Mohm to 20 Mohm. Interlocking push-button control for easy selection. CAT III 1000 V rated. One year warranty.



Part # BDM40



Function Generators

2 MHz Function Generator

0.2 Hz to 2 MHz. Sine, square, triangle, pulse and ramp output. Variable duty cycle and DC offset. Accessories supplied are output cable with BNC to alligator clips and instruction manual. Two year warranty.



Part # 4010A

4 MHz Function Generator

Generates sine, triangle and square waveforms. 0.5 Hz to 4 MHz. 20Vpp output into open circuit (10Vpp into 50 ohm). TTL output 25nS. Voltage Control Generator (VCG) input. 100% DC offset. Five digit display. Variable amplitude output plus 20dB attenuator.

Part # 4003A

5 MHz with Digital Display

Sine, square, triangle, pulse and ramp output. Coarse and fine tuning. Four digit LED display. Variable duty cycle and DC offset. 0.5 Hz to 5 MHz. Includes output cable with BNC to alligator clips and instruction manual. Two year warranty.

Part # 4011A

Function Generators (cont.)

10 MHz Sweep/Function Generator with Digital Display

Linear and log sweep. Five digit LED display. All the features of Model 4011A. 0.1 Hz to 10 MHz. Includes output cable with BNC to alligator clips and instruction manual. Two year warranty.

Part # 4017A

20 MHz Sweep/Function Generator with Frequency Counter

AM and FM modulation. Burst operation. External frequency counter to 30 MHz. Five digit LED display. All the features of Model 4017A. 0.2 Hz to 20 MHz. Includes output cable with BNC to alligator clips and instruction manual. Two year warranty.

Part # 4040A

Counters

Counters provide versatility and reliability for a broad spectrum of laboratory and service applications. In addition to frequency measurements, most BK Precision counters also provide period and totalize measurement capabilities.

Eight digit display provides up to 0.1 Hz resolution. Period mode provides accuracy at low frequencies. Ratio mode combines two input frequencies and displays their ratio. Totalize mode and Time interval mode add versatility. Large bright LED display. Selectable attenuators and low-pass filter prevent miscounts due to input noise. Range is 175MHz. Time base accuracy is ± 0.1 ppm. Display hold. Sensitivity is 20 mVrms. Remote start-stop and self test.



Part # 1823

Selectable gate time 0.1 sec and 1.0 sec. Seven digit LED display. Suitable for VHF communications up to 200 MHz. Highly accurate time base. Compact bench top AC powered counter. Range is 200MHz. Frequency mode. Time base accuracy is ± 0.1 ppm. Best resolution is 1 Hz. Sensitivity is 20 mVrms.



Part # 1803D

Wide measuring range up to 2.4 GHz. Bright eight-digit LED display. Period mode for accurate low frequency measurements. Totalize mode permits counting of individual events. Accurate TCXO time base. Functions are frequency, totalize period. Time base is ± 0.1 ppm. Best resolution is 0.1 Hz. Display hold, low pass filter, remote start-stop and self test. Sensitivity is 10 mVrms.



Part # 1856C

Function and Arbitrary Waveform Generator

True 12 bit, accurate and drift free. Generates every data point independently of the repetition rate instead of a simple look-up table. Custom design waveforms on a PC or download from a number of sources, spreadsheet, oscilloscope or application program. Modes: Basic Sine/Square Wave, Linear/Log Sweep (free run or triggered), Internal/External AM, FM, PM, SSB, BPSK, FSK (Ext FSK to 3MHz), Burst (Int/Ext trigger), DTMF Generation, DTMF Detection, Power Measurement, Dualtone Generation, Arbitrary Waveform, Function Generator and Pulse Generator. Two year warranty.



Part # 4070A

Test & Measurement - Oscilloscopes

FLUKE

Scopemeter® 120 Series

The compact ScopeMeter 120 Series is the rugged solution for industrial troubleshooting and installation applications. Dual input 40 or 20 MHz digital oscilloscope. Two 5,000 count true-rms digital multimeters. A dual input TrendPlot™ recorder. Connect-and-View™ trigger simplicity for hands-off operation. Shielded test leads for oscilloscope, resistance and continuity measurements. 10:1 Voltage Probe included with Fluke 124 for reduced circuit loading. Up to seven hours battery operation. 600 V CAT III safety certified. Optically isolated RS-232 interface with rugged compact case.



Part #	Description
Fluke 123/003	ScopeMeter 20MHz
Fluke 124/003	ScopeMeter 40MHz

Scopemeter® 190B/190C Series

Provides high-performance oscilloscopes offering specifications usually found on top-end bench instruments. With up to 200 MHz bandwidth, 2.5 GS/s real-time sampling and a deep memory of 27,500 points per input.



Part #	Description
Fluke 199C/003	ScopeMeter 200 MHz color
Fluke 196C/003	ScopeMeter 100 MHz color
Fluke 199B/003	ScopeMeter 200 MHz B/W
Fluke 196B/003	ScopeMeter 100 MHz B/W
Fluke 192B/003	ScopeMeter 60 MHz B/W

Software, Cable, Carry Case For 190 Series

Packaging includes: FlukeView® Software for Windows® English, French and German language, PM9080 optically isolated RS-232 adapter/cable and C190 hard carry case.



Part # SCC190

Hard Carrying Cases

Storage compartments for test leads, probes, instruction manual, power adapter and other small accessories.



Part #	Description
C190	Hard carrying case for 190 Series

C125 Compact Soft Case 120 Series

Zippered carrying case (black) for 120 Series. Pouch is designed to carry test leads and probes. Convenient belt loop accommodates tool belt.



Part # C125

BK PRECISION

20 MHz Analog/Digital Storage Oscilloscope

Ten MS/s sampling rate each channel. Two-k memory per channel. One GHz equivalent time sampling (at 0.1 μ s/div). Pre-trigger capture. Includes instruction manual, two PR-33A x1/x10 probes or equivalent, AC power cord and spare fuse. Three year warranty.



Part # 2522B

BK PRECISION

30 MHz Analog Oscilloscopes

Dual or single trace operation 5mV/div sensitivity. Auto/Norm triggered sweep operation with AC, TVH, TVV and line coupling. Calibrated twenty-three step time base with x10 magnifier. Compact low-profile design. Includes instruction manual, two PR-33A x1/x10 probes or equivalent, AC power cord and spare fuse. Two year warranty.



Part # 2120B

Delayed sweep in twenty-three steps. Built-in component tester for capacitors, inductors, diodes, transistors, zener diodes. Twenty-three step time base to 0.1ms/div. Deluxe handle/tilt stand. Includes instruction manual, two PR-33A x1/x10 probes or equivalent, AC power cord and spare fuse. Three year warranty.

Part # 2125A

30MHz Analog Oscilloscope with Frequency Counter

A dual trace oscilloscope with a built in 50 MHz frequency counter that offers high performance at a low price. Has a bandwidth of 30 MHz while competitors have only a 20 MHz bandwidth. It has an AUTO/NORM triggered sweep operation with AC, TVH, TVV and line coupling. Compact low profile design.



Part # 2121

31.5 MHz Synthesized Arb. Waveform Generator with Software

Represents the finest single source for signal generation to date. Combining the latest DSP and DSS technologies. Stable, accurate and drift free. It generates every data point independently of the repetition rate instead of a simple look up table.



Part # 4071

40 MHz Dual Channel Analog Oscilloscope

Five mV/div sensitivity. Nineteen calibrated sweeps. Video sync separators. X10 sweep magnification. Includes instruction manual, two PR-33A x1/x10 probes or equivalent, AC power cord and spare fuse. Three year warranty.



Part # 1541D

60 MHz Analog Oscilloscope

Five mV/division sensitivity. Twenty-three calibrated ranges - delayed and main time base. Component tester. Z axis input. Single sweep. Includes instruction manual, two PR-33A x1/x10 probes or equivalent, AC power cord and spare fuse. Three year warranty.



Part # 2160A

100 MHz Analog Oscilloscope

Dual time base oscilloscope (two channel). Five mV/division sensitivity. Sweeps to 5ns/division. Twenty-three calibrated ranges, main time base. Signal delay line. Fifteen kV accelerating voltage. Channel 2 output. Includes instruction manual, two PR-37A x1/x10/Ref probes or equivalent, AC power cord and spare fuse. Three year warranty.



Part # 2190B

150 MHz Analog/Digital Storage Oscilloscope

Dual channel 150 MHz, 200 MS/s. Autoset. Auto cursor. Save and recall. 2K x 8bit memory per channel. RS232 (software included). Component test. Readout cursor (analog/digital). Selectable acquisition modes. Includes operating manual, four disks, line cord, two probes 10:1. Two year warranty.



Part # 5105A

Test & Measurement - Power Supplies

BK PRECISION

Single Output DC Power Supplies

Connect two supplies in parallel to double the current output. Connect two supplies in series to double the voltage output.

Voltage regulation line (120VAC±10%) is 0.01% + 3mV. Voltage regulation load (no load - full load) is 0.01% + 3mV. Recovery time is 100µs. Ripple and noise is 1mV rms. Temperature coefficient is 300ppm/°C. Adjustable current range is 5% to 100%. Current regulation line (120VAC±10%) is 0.2% + 3mA. Current regulation load is 0.2% + 3mA. Current ripple is 3mA rms.



Part #	Output Voltage	Output Current	Metering Type	Volt Range	Volt Accuracy	Ammeter High Range	Ammeter Low Range	Ammeter Accuracy
1710A	0-30V	0-1A	Analog	0-32V	±2.5%	0-1.04A	0-0.26A	±2.5%
1711A	0-60V	0-2A	Analog	0-64V	±2.5%	0-2.2A	0-0.55A	±2.5%
1715A	0-60V	0-2A	3-digit LED	0-99.9V (green)	±(0.5%rdg + 2 digits)	0-9.99A (red)	n/a	±(0.5rdg + 2 digits)
1730A	0-30V	0-3A	Analog	0-32V	±2.5%	0-3.2A	0-0.53A	±2.5%
1735A	0-30V	0-3A	3-digit LED	0-99.9V (green)	±(0.5%rdg + 2 digits)	0-9.99A (red)	n/a	±(0.5rdg + 2 digits)

Voltage regulation line (120VAC ±10%) is 0.2% + 2mV. Voltage regulation load (no load - full load) is 0.04% + 2mV. Recovery time is 100µs. Ripple and noise is 1mV rms. Temperature coefficient is 300 ppm/°C. Adjustable current limit is 5% to 100%. Current regulation line (120VAC±10%) is 0.4% + 5mA. Current regulation load is 0.4% + 5mA. Current ripple is 3mA rms. Dimensions (HxWxD)- 5.7 x 10.5 x 15" (145 x 267 x 381 mm).

Part #	Output Voltage	Output Current	Metering Type	Volt Range	Volt Accuracy	Ammeter High Range	Ammeter Low Range	Ammeter Accuracy
1740A	0-60V	0-4A	Analog	0-64V	±2.5%	0-4.4A	0-1.1A	±2.5%
1743A	0-35V	0-6A	3-Digit LED	0-99.9V (green)	±(0.5%RDG + 2 digits)	0-9.99A (red)	n/a	±(0.5%RDG + 2 digits)
1746A	0-16V	0-10A	Analog	0-16V	±2.5%	0-11A	0-2.2A	±2.5%

Compact Single Output DC Power Supplies

Connect two supplies in parallel to double the current output. Operate continuously at full load without overheating. Coarse and fine voltage controls. Constant voltage or constant current operation. Voltage regulation line (120VAC + 10%, -6%) - =0.02% + 3mV. Voltage regulation load (no load - full load) - =0.02% + 3mV. Recovery time - =500ms. Ripple and noise - =0.5mV rms. Temperature coefficient - =300ppm/°C. Adjustable current range - 0-100%. Current regulation line (120VAC + 10%, -6%) - =0.02% + 3mA. Current regulation load - =0.02% + 3mA. Current ripple - =3mA. Overload protection is current, limiting, reverse polarity, overvoltage, short circuit. Power requirements are 120VAC±10%, 60 Hz (120/220/230/240VAC±10%, 50/60Hz version available). One year warranty.



Part #	Output Voltage	Output Current	Metering Type	Volt Range	Volt Accuracy	Ammeter Range	Ammeter Accuracy	Power Consumption
1620A	0-18V	0-5A	Analog	0-18V	±7% FS	0-5A	±7% FS	210W
1621A	0-18V	0-5A	3-digit LED	0-18V	±0.2% + 2 digits	0-9.99A	±0.2% + 2 digits	220W
1622A	0-60V	0-1.5A	Analog	0-60V	±7% FS	0-3A	±7% FS	210W
1623A	0-60V	0-1.5A	3-digit LED	0-60V	±0.2% + 2 digits	0-9.99A	±0.2% + 2 digits	220W
1626A	0-30V	0-3A	Analog	0-30V	±7% FS	0-3A	±7% FS	210W
1627A	0-30V	0-3A	3-digit LED	0-30V	±0.2% + 2 digits	0-9.99A	±0.2% + 2 digits	220W

Model 1653A Variable Isolated AC Power Supply

Variable isolated 0-150VAC. Continuous output at 2A. Displays voltage or current readings. Isolation transformer to eliminate shock hazard while servicing "hot chassis" equipment. A compact, rugged unit with one year warranty. Output isolation - leakage less than 0.1mA (25°C, 50% RH). Voltage/current sensing is sine wave average, calibrated in RMS.



Part #	Peak Current (inrush)	Meter Scale	Leakage	Metering	Meter Accuracy	Soldering Iron Temp. Control	Power Requirements	Dimensions (HxWxD)
1653A	N/A	0-140VAC, 0-2 VAC	N/A	3 1/2" overrange protected	±5% of full scale	N/A	120VAC ±10%, 60 Hz 300VA	5.5 x 6.5 x 10.5" (140 x 165 x 267mm)

Model 1655A Variable Isolated AC Power Supply

Variable isolated output is 0-150VAC. Maximum current is 3A continuous and 4A intermittent output. Built-in soldering iron temperature control. Expanded leakage scale. Circuit breaker overload protection. Displays V, A, VA and leakage. One year warranty included. Output isolation - leakage less than 0.1mA (25°, 50% RH). Voltage/current sensing is sine wave average, calibrated in RMS.



Part #	Peak Current (inrush)	Meter Scale	Leakage	Metering	Meter Accuracy	Soldering Iron Temp. Control	Power Requirements	Dimensions (HxWxD)
1655A	30A max. (inrush limited to one cycle at 30A)	0-240VAC, 0-480VAC (voltage set at 120)	0-5000 µA (expanded in 100-500 µA portion, compressed to 5mA full scale)	4 1/2" multicolor scales, over-range protected	±5% of full scale (volts and current) ±5% at 500µA (leakage)	70-99% of power line (100W max.)	120VAC ±10%, 60 Hz, 600VA at maximum output	10.5 x 5.7 x 12" (267 x 145 x 305mm)

Test & Measurement - Power Supplies

BK PRECISION

GPIB Programmable Power Supplies

Excellent programming resolution and accuracy. Integral system software makes in-case calibration quick and accurate. Large character LCD display assures fast, "easy-to-read" measurements. Line regulation (120V±10%) is 0.001%. Load regulation is 0.001% + 1mV. Ripple and noise is 1mV rms. Operating voltage is 110-120VAC, 220-230VAC. Dimensions (WxHxD) are 8.4 x 5.2 x 15.7 (213 x 132 x 398mm). Display is 4 digit alphanumeric LCD. Three year warranty.



Part #	DC Output Max Volt	DC Output Max Current	Resol. Volt	Resol. Current	Resol. OVP	Accuracy Volt	Accuracy Current	Accuracy OVP
1770	0-17.5V; 0-35V	0-6A; 0-3A	10mV	2mA	200mV	0.05% + 2LSB	0.15% + 5LSB	2.4% + 0.3V

Variable Voltage DC Output

Model 1688 has 20A guaranteed @ 13.8V and Model 1686 has 12A guaranteed @ 13.8V. Variable voltage is 3 to 14 volts DC output. Current limiting overload, over voltage, short circuit and reverse polarity protection. Thermostatically controlled cooling fan. Thermal protection. Connect two in parallel for more current. Connect two in series for higher voltage. Output current is proportional to output voltage. F.S. Power requirements are 120/220 VAC±10%, 50/60 Hz. Instruction manual and one year warranty included.



Part #	DCV Output-Max DCA	Voltmeter Range	Ammeter Range	Power Consumption
1686A	3V-2.5A, 5V-4.5A, 9V-7.5A, 12V-10A, 13.8V-12A, 14V-12A	0-20V	0-20A	400W
1688A	3V-4.5A, 5V-7.5A, 9V-13A, 12V-20A, 13.8V-20A, 14V-20A	0-30V	0-30A	580W

High Current DC Power Supply

Regulated DC power supplies with 640 watt output. Linear high current DC power supplies suitable for bench operation or standard 19" rack operation. Low noise output. Automatically cross over from constant voltage to constant current mode and vice-versa if the output exceeds preset limits. Front panel LED meters for monitoring voltage and current. Output terminal may be grounded or floated up to a maximum of ± 300 VDC above ground. Designed to meet CE specifications. Constant voltage/constant current operation. Remote programming facility. Facility for presetting the output voltage and maximum load current limits. Separate DC output ON/OFF switch. Two year warranty. User manual included.



Part #	Output (DC)	Output Current (DC)
1790	0-32V	0-20A
1791	0-64V	0-10A

Triple Output DC Power Supply

One variable 0-30VDC, 3A section. Operating temperature is 0 to 40°C =75% R.H. Dimensions (HxWxD) are 5 x 8.5 x 9.2". Ideal for general electronic servicing, school electronics labs, and powering up hobbyists projects. One year warranty.



Part # 1670A

Two 0-30 VDC, 2A sections capable of independent, series or parallel operation. One 4-6.5VDC, 5A section. Switchable series/parallel operation - 30V sections. Adjustable current limit controls-30V sections. Two 3 digit LED displays. Operating temperature is -15° to 70°C =85% R.H. Dimensions (HxWxD) are 5.7 x 10.5 x 15" (145 x 267 x 381mm). Weighs 21 lbs. (9.5kg). Two year warranty.



Part # 1760A

Programmable DC Power Supply

Nine user-programmable preset outputs. Ten step user-programmable output routine. In-case calibration. Serial interface cable and software included. Line regulation (120V±10%) is 0.02% + 5mV. Load regulation is 0.02% + 5mV. Ripple and noise (RMS) is 1mV. Operating voltage is 110/220 VAC, 60 Hz. Display is 3 digit LCD voltmeter and ampmeter. Two year warranty.



Part #	DC Output Voltage	Current
1785A	0-18V	5A
1786A	0-30V	3A
1787A	0-60V	1.5A

Regulated 28A DC Power Supply

Models offer multiple DC output terminals: two pairs of 3A, snap-in DC connectors are easily accessible on the front panel, and a pair of 28A screw-on DC output terminals are located on the rear panel. IVDC to 15VDC variable output. 28A output at - 13.5VDC. Overload protection. High RFI stability. Multiple DC output terminals. One year warranty. DC Output Max Ratings: Voltage is 1-15V. The current is 28A (@13.8V). Line regulation is 5mV (±2% load). Load regulation is 50mV (0-100% load). Ripple and noise (RMS) is 5mV. Operating voltage is 120 VAC, 60 Hz. Dimensions (WxHxD) are 9.84 x 5.5 x 8.86" (250 x 140 x 225mm). Weighs 19.9 lbs (9kg). User manual and one year warranty is included.



Part #	Description
1689	Analog
1690A	Digital

Fixed Voltage Power Supplies

Current foldback overload, short circuit and reverse polarity protection. Thermostatically controlled cooling fan. Output voltage is 13.8 VDC±0.5V. Output current is 15 ADC peak, 12 ADC continuous. Line regulation (110-132 VAD) is -0.8%. Ripple and noise is 10mV rms. Power requirements are 110-132 VAC, 60 Hz. Operating temperature range is 0°C to 40°C, 75% R.H. Storage temperature range is -15°C to 70°C, 85% R.H. One year warranty. Instruction manual included.



Part # 1682A

Current foldback overload, short circuit and reverse polarity protection. Convenient cigar lighter output. Output voltage is 13.8 VDC±0.5V. Output current is 6 ADC peak, 4 ADC continuous. Line regulation (110-132 VAD) is 130mV. Ripple and noise is 10mV rms. Power requirements are 110-132 VAC, 60 Hz. Power consumption is 185W. Operating temperature range is 0°C to 40°C, 75% R.H. Storage temperature range is -15°C to 70°C, 85% R.H. One year warranty. Instruction manual included.



Part # 1680A

Test & Measurement - Power Supplies

BK PRECISION

Switch Mode Power Supply

Lightweight and compact. High efficiency. Current fold-back circuitry with illuminated indicator prevents overloading the power supply. Over temperature protection circuitry. Over voltage protection prevents abnormal high output voltage. High RFI stability. Variable output 3V to 15V at 40A. Ripple and noise is - 10mVrms. Line regulation (120V±10%) - 80mV (±10% variation). Load regulation - 230mV (0-100% load). Power requirements - 120 VAC; 60 Hz. Metering - dual color digital LED. One year warranty. Includes instruction manual.



Part # 1692A

Dual Output Isolation Transformer

Direct-convenience duplex outlet provides line voltage for auxiliary equipment up to 500 VA. Isolated two 3-position slide switches provide 9 combinations of voltage selection from 90 to 140 V, up to 350 VA continuous or 500 VA intermittent. Self-contained power switch with pilot lamp. UL listed. Input requirements are 105 - 130 VAC, 60 Hz. Direct and isolated connections - duplex outlet (3 conductor). Regulation - no load (350 VA), voltage change 4%. Dimensions (HxWxD) are 5.1 x 5.5 x 8" (130 x 140 x 200 mm). Weighs 11 lbs (5 kg). One year warranty.



Part # TR-110

BK PRECISION

Compact Triple Output DC Power Supply

Independent or tracking operation. Adjustable current limiting. Designed to operate continuously at rated output. Short circuit protection, overvoltage protection, and reverse polarity protection. Connect outputs in series for higher voltage output or in parallel for higher current output (switch selectable). One year warranty.



Part #	Metering Display	Volt Range	Volt Accuracy	Ammeter Range	Ammeter Accuracy
1651A	2 Analog	0 to 25 V	2.5% of full scale	0 to 600 mA	2.5% of full scale

GPIB Programmable Power Supplies

Excellent programming resolution and accuracy. Integral system software makes in-case calibration quick and accurate. Large character LCD display assures fast, "easy-to-read" measurements. Line regulation (120V±10%) is 0.001%. Load regulation is 0.001% + 1mV. Ripple and noise is 1mV rms. Operating voltage is 110-120VAC, 220-230VAC. Dimensions (WxHxD) are 8.4 x 5.2 x 15.7 (213 x 132 x 398mm). Display is 4 digit alphanumeric LCD. Three year warranty.



Part #	DC Output Max Volt	DC Output Max Current	Resol. Volt	Resol. Current	Resol. OVP
1775	0-35V	0-2A	10mV	0.6mA	200mV
1780	0-18V	0-4A	5mV	1.5mA	100mV

Test & Measurement - Specialty & Misc.

FLUKE

Fluke 430 Series Three-Phase Power Quality Analyzers

Locate, predict, prevent and troubleshoot problems in three and single phase power distribution systems. Highest safety rating in the industry - 600V Cat IV / 1000V Cat III. Automatic transient mode captures 200kHz waveform data on all phases simultaneously - up to 6kV. Every measurement is automatically recorded, without any setup. Up to seven power quality parameters on one screen according to EN50160. Rugged, handheld troubleshooter with Fluke 3 year warranty. Seven hours operating time per charge on NiMH battery pack.



Part #	Description
Fluke 434/003	Power Quality Analyzer 3 Phase
Fluke 435/003	Logging Power Quality Analyzer 3 Phase
i430-Flex-4Pk	4 pack of 3000A flexible current probes (included with Fluke 435)
C435	Water tight hard case with rollers (included with Fluke 435)
I5sPQ3	3 pack of 5A precision current clamps
GPS430	GPS time synchronization module for Fluke 430 Series
Fluke 434/LOG	Upgrade kit for Fluke 434 includes Power Log software and enables logger and mains signaling function (accuracy and memory not upgradeable)
I400s	AC Current Clamp

FLUKE

Fluke 1740 Series Power Quality Loggers

Capable of logging over 500 parameters for up to 85 days. Includes PQ Log software to quickly assess the quality of power at the service entrance, substation or at the load according to the latest EN50160 standard. Measure all 3 phases and neutral with included 4 flexible current probes. No power supply or batteries required. Accurately validate system performance with IEC 61000-4-30 class A voltage accuracy and EN50160 overview. Designed for rugged field use with IP65 case. Two year warranty.

Part #	Description
Fluke 1743	Logs voltage, current, dips, swells, interruptions, voltage harmonics, power, energy - Dust/water resistance IP65 - UPS 1s
Fluke 1744	Logs voltage, current, dips, swells, interruptions, voltage harmonics, power, energy, current harmonics, interharmonics, flicker, frequency - Dust/water resistance IP65 - UPS 1s
Fluke 1745	Logs voltage, current, dips, swells, interruptions, voltage harmonics, power, energy, current harmonics, interharmonics, flicker, frequency - Dust/water resistance IP50 - UPS >5 hrs

Fluke 43B Power Quality Analyzer

Performs the measurements you need to maintain power systems, troubleshoot power problems and diagnose equipment failures. The new 43B has 20 storage locations and can store data as well as screens.



Part # Fluke 43B

C550 Premium Tool Bag

Steel reinforced frame. Rugged ballistic cloth with heavy duty hardware. Large zippered storage compartment with over 20 pockets. Weather resistance and carries all tools to the job.



Part # C550



Capacitance and Resistance Testers

The ultimate component checker measures inductance, capacitance, resistance, transistors, diodes and microwave diodes. Plug-in test slots and test leads. Oversized, read-at-a-glance display. Data hold and max hold. Auto-off. Resistance is 0.01 ohm-20M ohm, $\pm 0.5\%$. Capacitance 0.1pF-2000 μ F, $\pm 1.0\%$. Inductance is 0.1 μ H-200H, $\pm 5.0\%$. Transistors are Hfe, I_{ceo} (NPN, PNP). Diodes are Std (3V) and microwave oven (8V). Continuity test. Holster.



Part # LCR55A

Sort, match, QC inspect, and verify components, check circuits with this full range capacitance and resistance meter. Dual zero adjustment pots to null strays and test leads. Special "Low Ohms" range. Oversized, read-at-a-glance display. Premium test leads with alligator clips. Resistance is 0.01 ohm-20M ohm, $\pm 0.5\%$. Capacitance is 0.1pF-20mF, $\pm 0.5\%$. Diode and continuity test.



Part # CR50A



Ultrasonic Leak Detector

ULD-300

Locates arcing in an electrical system. Useful in finding the ends of buried PVC pipes. Detects any pressurized gas leak regardless of type CFC's, HFC's, Nitrogen, etc. (unaffected by contaminants).



Part # ULD-300

TMULD-300

ULD-300 with UT-300 Transmitter. Has same features as ULD-300. Transmitter "pressurizes" area with ultrasonic sound enabling the ULD-300 to pinpoint leaks (used in areas where gas is not sufficiently pressurized). Applications include air tightness of cars or houses.

Part # TMULD-300

Digital Recorder/Data Logger

Measures and records broad spectrum of power quality parameters: AC current up to 1000A (and up to 300A with optional CTs), AC voltage to 600V, active, reactive and apparent power, energy, peak demand and power factor. Comes as a complete kit, CT's and PC software are included with product. Works with single and three phase systems (Y and delta). Capable of recording all parameters (single or three phase) simultaneously. All readings are True RMS (TRMS).



Part # DM-II PRO

Current Tracers

Heavy duty, recommended for tough industrial applications. Traces live wires buried underground or hidden behind walls up to 13 feet deep. Performs tests without having to interrupt power. Locates breakers, neutral and ground lines. Locates and traces wires in walls, floors, conduit, computer cables, etc. Pinpoints shorts and ground faults. Does not interfere with sensitive electronic equipment.



Part #	Description
CT-100	Wire Tracer - Traces wire up to 4 feet deep
CT-326B	Current Tracer - Traces wire up to 13 feet deep



Advanced Tracer

Trace energized lines up to 300 VAC or VDC. Trace unenergized and open conductors. Identifies breakers and fuses without powering down. Locates shorts. Identifies wires in a bundle. Identifies control, alarm and telephone system wiring. Traces coaxial cable shield. Receiver range 1 to 3 feet from a cable being traced.



Part # AT-1000



3-Phase Motor Rotation Tester

Identifies three-phase sequence. Indicates motor rotation. Checks for open phases. For use up to 600V. Meets IEC-1010 (EN61010) safety requirements. Five year warranty. Includes carrying case.



Part # 61-521

SureTest® Open/Closed Circuit Tracers

Locate and trace where energized or de-energized cables are installed behind walls, under the floor, from the outlet to the breaker panel. No more guessing where circuits are located behind walls. Pinpoints opens and shorts in wires. Identifies breakers and fuses. Bright, easy to read OLED rotating display. Four search mode intensities. 2 year warranty. 2 kits to choose from.



Part #	Description
61-956	OLED Receiver, transmitter, test lead set, case
61-958	OLED Receiver, transmitter, test lead set, case, plus inductive clamp

Voltage Performance Monitor

Identify problem circuits before expensive and sensitive equipment is installed. Monitors energized circuits for voltage events such as sags, swells, impulses, and harmonic distortion. Real time monitoring and data storage of up to 512 events. Records the time, date, and length of the each specific voltage event. User definable parameters. No software or external device needed to view results. Bright OLED screen. Works on 15-265V circuits.



Part # 61-830



CableTool™ Multifunction Cable Meter

Identify and find the distance to an open or short in seconds. Measure cable length in a box, on a spool or in a wall from just one end. Transmit tone signals for tracing hidden cables runs. Measure voltage to identify live circuits. Extensive built-in library or cable types. Compatible with all common cables. Displays length in feet or meters. Includes: red test lead with alligator clip, black test lead with alligator clip, carrying case and four AA alkaline batteries.



Part # CT-50



CX-920A Digital Capacitance Meter

A "must" for troubleshooting and circuit design. Measures to 20mF (20,000 μ F). Portable, battery operated. 0.1pF to 20mF. Nine ranges. 0.5% basic accuracy. 3½ digit LCD, 0.55" height. Zero adjustment. Input protected. Low battery indicator. Overrange indicator. Rotary range switch. Rugged construction. Tilt stand. One year limited warranty. Battery, test leads (ML-920A), spare fuse and operating instructions included.



Part # CX-920A

Test & Measurement - Probes & Probe Accessories



TP220 SureGrip™ Industrial Test Probes

Rubber overmolded surfaces and finger-hugging curves give the user a comfortable, reliable grip on the accessory so they can focus on making an accurate measurement.



Part # TP220

Contact Probes

80TK Thermocouple Module

Converts multimeters with a mV range into digital thermometers. Converts K-type thermocouple signals into mV output. Connects to DMM via standard banana plugs. Switch selectable °C to °F. Range is -50°C to 1000°C (-58 to 1832°F). Includes 80PK-1 probe.



Part # 80TK

80PK-1 Bead Probes

This basic, inexpensive thermocouple offers good accuracy and fast response. (Not suitable for liquid immersion.) Measurement range is -40 to 260°C (-40 to 500°F). One meter (39") lead wire. Compatible with K-type thermometers.



Part # 80PK-1



Active Differential Probe

Allows user to safely make floating high voltage measurements while using general purpose oscilloscopes. Maximum differential voltage up to 1000V. Differential amplifier converts and scales floating input signal to a low voltage signal referenced to earth ground. The probe can be used on circuits associated with electronic high-power converters, motor speed controllers, switching power supplies, and other high voltage circuits requiring isolation. Switchable attenuation settings. High impedance to ground for both positive and negative sides of the balanced input. Input uses shrouded banana test probe tip. Probe tip accepts large alligator clips and pin-grabber test clips (included). The output to the oscilloscope is a BNC cable with a safety insulated BNC male connector.



Part # 6731

Temperature Probes - K Type

Extended Range General Purpose Temperature Probe

General purpose probe for gas, air, gels and liquid measurements. Measurement range is -320°F to 1994°F (-196°C to 1090°C). Temperature tolerance is ±2.2°C or 0.75%. Probe length is 8". O.D. is 0.125". Cable length is 48".



Part # 6373

General Purpose Temperature Probe with Round Tip

General purpose probe for gas, air, gel and liquid measurements. Measurement range is -40°F to 500°F (-40°C to 260°C). Temperature tolerance is ±2.2°C or 0.75%. Probe length is 6". O.D. is 0.125". Cable length is 48".



Part # 6367



Temperature Probes - K Type (cont.)

Surface Temperature Probe

Ideal for measuring surface temperatures in a lab or more rugged environment. Measurement range is -32°F to 500°F (0°C to 260°C). Temperature tolerance is ±2.2°C or 0.75%. Probe length is 4". O.D. is 0.125". Cable length is 48".



Part # 6376

Temperature Probe with Thermocouple Bead Tip

General purpose probe for air and surface measurements. Temperature tolerance is ±2.2°C or 0.75%. Cable length is 39" (1 meter).



Part # 6378

Thermocouple Extension Wire Kit

Kit includes one pair of mini-connectors (male and female) and thermocouple wire (unassembled). Temperature range is -40°F to 500°F (-40°C to 260°C).

Part # 6540K

Specialty Probe Sets

Precision Electronic Test Probe Sets

Replaceable pogo-pin tips. Comfort-grip textured surface. Fits all meters including Fluke, HP (Agilent), Keithley, Wavetek, (Meterman) and others. Silicone insulated leads resist abrasion and heat. Replacement tips types are sharp-point gold pogo-pin, tri-point gold pogo-pin, quad-point gold pogo-pin, sharp stainless steel rigid and 3" long extended stainless steel. Ratings are CAT III 1000V.



Part #	Description
6341	Probe set with complete set of 5 tips
6354	Replacement probe tip. Set of 5 types.

Retractable Tip Test Probes

Sharp, thin tips for hard-to-reach places. Silicone insulated 4 ft. leads fits most meters from Fluke, Wavetek (Meterman), HP, Amprobe, Greenlee and others. Fully insulated tip extends to 3". Durable .040" stainless steel tips reach into inaccessible areas. Set of 2 probes, one black and one red. Right-angle DMM. CAT II 600V.



Part # 5953A

Replaceable Tip Probes

Easily replaced without tools making this versatile probe the perfect tool for nearly every test. Comfort-grip probe handle. Probe tip types are gold-plated sharp-point pogo, gold-plated Microtip pogo, gold-plated triple-point pogo, stainless-steel sharp-point, and standard tip, 060 nickel/brass. Plug types are right angle DMM plug*, straight DMM plug*, stacking banana plug, straight banana plug, retractable sleeve banana plug, and right angle banana plug. *Shrouded DMM plugs fit most DMMs from Fluke, Wavetek (Meterman), HP (Agilent), Amprobe, Greenlee and others.



Part #	Probe Tip	Plug Type	Ratings
5950A	Stainless-steel sharp-point	Straight banana	30VAC 60VDC
5951A	Nickel plated brass	Right-angle banana	30VAC 60VDC
6469	Gold-plated microtip pogo	Right-angle DMM	CAT III 1000V
6470	Gold-plated microtip pogo	Straight DMM	CAT III 1000V
6472	Gold-plated microtip pogo	Stacking banana	30VAC 60VDC
6477	Stainless-steel sharp-point	Right-angle DMM	CAT III 1000V

Test & Measurement - Probes & Probe Accessories



Modular Passive Voltage Oscilloscope Probes

A new, compact, ergonomically designed probe handle. Ideal for use with a wide variety of oscilloscopes. They feature a spring-loaded, pogo-pin replaceable tip. The fine tip probes are perfectly suited for probing high-density chip leads with less than 0.060" spacing. Modular in design, the probe handle is capable of receiving a variety of spring-loaded and fixed tips, providing greater testing versatility. Probe sets feature probe handle, insulated adjusting tool, spring hook, BNC adapter, 23cm ground lead, 25mm ground adapter, IC tip adapter, tip cover, rigid tip and spring-loaded tip (1 each) and complete set of instructions and specifications. Bandwidth includes total system bandwidth when attached to scope. *Measurements based on a 15pF oscilloscope. **Has readout actuator.



Part #	Attenuation	Bandwidth (-3dB) MHz	Risetime ns	Input Resistance Mohm	Capacitance* pF	Compensation Range pF	Max Input Voltage	Cable Length m
6491	X1	25	14	1	38	-	100	1.2
6492	X10	350	1	10	12	8~45	300	1.2
6493	X10	60	5.9	10	10	10~60	300	1.2
6494	X10	60	5.9	10	10	10~60	300	1.2
6495	X10	100	3.5	10	10	10~60	300	1.2
6496	X10	350	1.0	10	12	5-40	300	1.2
6497	X10**	350	1.0	10	12	5-40	300	1.2
6498	X100	350	1.2	50	6	10~50	1500	2
6499	X1/X10	20/60	17.5/5.9	1/10	40/10	/10~60	300	1.2
6500	X1/X10	20/100	15/3.5	1/10	42/10	/10~60	300	1.2
6501	X10	350	1	10	12	8~45	300	1.2

Replacement Passive Oscilloscope Probes

These general purpose monolithic passive voltage probes feature high performance for greater test flexibility. Complete accessory kit included. *Measurements based on 1M ohm, 20pF oscilloscope. Bandwidth includes total system bandwidth when attached to scope.

Part #	Attenuation	Bandwidth (-3dB) MHz	System Risetime ns	System Input Resistance* Mohm	Capacitance* pF	Compensation Range pF
4550B	X1/X10	15/100	23.33/3.5	1/10	64/10.5	NA/10~60
5795A	X10	100	3.5	10	9.5	10~60
5800A	X1	30	11.66	1	57	NA
5803A	X10	200	1.75	10	10	10-60



Logic Probes

Pen-size logic probes. Troubleshoot and analyze digital logic circuits.

Part #	Description
LP10B	A good value for most common circuits detects pulses 30ns up to 17MHz; TTL, CMOS levels. Dual LEDs indicate Hi/Lo state.
LP25B	A better unit tests more detects pulses 30ns up to 25MHz, TTL, CMOS, DTL, RTL, NMOS, MOS logic dual LEDs and tone indicate Hi/Lo state.

Temperature Probes and Tips

These temperature probes are Type K thermocouples. They terminate in miniature, type K male connectors. They are directly compatible with Wavetek Meterman Models 23XT, 28XT, HD110T, 235, TM45, TC253A and all other meters and thermometers with type K female connectors.



Part #	Description
TP254A	Higher temperature immersion probe. Built on handle. 1100°C/2012°F.
TP255A	Low cost, general purpose bead probe. 200°C/392°F.
MH101K-A	Master probe handle for tips TP110K, TP120K and TP130K.
TP110K-A	Immersion probe tip. 650°C/1200°F. Use with MH101K handle.
TP120K-A	Surface probe tip. Specially designed to get true surface temperatures. 650°C/1200°F. Use with MH101K handle.
TP130K-A	Air/gas probe tip. Specially designed with radiation sheath. 650°C/1200°F. Use with MH101K handle.



High Voltage Probe

Extended voltage measuring to 40kV. Use with standard multimeters with 10M ohm input impedance. DC voltage is 1kV-40kV, ±2%. AC voltage is 1kV-40kV (50/60 Hz ± 5%).



Part # HV231-10A



Non-Contact VoltProbes®

Detect AC Voltage (100-600V). Use non-contact method of voltage testing. Totally insulated, no exposed metal or conductive parts. Check for AC voltages without necessity of disconnecting the electrical system. Test for AC Voltage cables, circuit breakers, wall sockets, junction boxes, fuses. Find and pinpoint breaks in wires. CAT III 600V.



Part #	Features
VP-600	Lights
VP-600B	Lights and Beeps. AC Voltage Detection is 100-600V.
VP-600SB	Lights, Beeps and Shakes.



Test & Measurement - Probes & Probe Accessories

BK PRECISION

Three Piece Oscilloscope Probe Kit

A complete range of probe attenuation. It contains three probes-1x, x100, and x1/x10 switchable. Includes a full accessory offering with spring hook, replacement tip, ground lead and BNC adapter. IEC61010-2-031 compliant.



Part # PR-50

Demodulator Probe

All purpose demodulator probe, usable with most oscilloscopes. Features lightweight design and 48" (1.2m) coaxial cable.



Part # PR-32A

RF DMM Probe

All purpose RF demodulator probe, usable with most digital multimeters. Allows a digital multimeter to measure sine wave AC signals: 1 Veff=1VDC. Lightweight design.



Part # PR-650A

40 kV High Voltage DMM Probe

If the voltages you need to measure are above the specifications of general purpose probes, B+K Precision has a higher voltage probe for you. Voltage AC is 20kV and voltage DC is 40kV.



Part # PR-28A

UL Listed Probes With PVC Wire

IEC61010 600V CATIII rating. Highly flexible PVC lead wire, 40" (1.0m). Black and red alligator clips.



Part # TL-100A

Maxi-Pro DMM Kit

Includes soft, flexible silicone lead wire for easy movement and tri-fold velcro pouch for convenient storage. IEC61010-2-031 compliant. Silicone lead wire length 60" (1.5m).



Part # TL-50

SMD Probe Kit

Extended, slim-line probe body for easy reach. Use with small SMD components or general purpose test points. Includes soft, flexible silicone lead wires for easy movement and clear PVC. Pouch for convenient storage. IEC61010-2-031 compliant. Silicone lead wire length 60" (1.5m).



Part # TL-10

Probe Accessory Kit

Threaded accessories to fit TL-2A probes - black and red pairs (except for alligator clip). Alligator clip, red only. Spring hook clips. Four inch sharp extension tips to reach tight test points. No. 10 spade lugs.



Part # TL-3

BK PRECISION

Active FET Probe

Powered by a 12VDC adapter (included), the probe measures frequencies up to 750MHz with an input impedance of 2pF and 1M ohm. Accessory kit includes: (4) 0.031 gold measuring tips, (2) ultra-miniature test clips, (2) miniature test clips, (2) 5cm miniature test leads and (2) 10cm miniature test leads.



Part #	Description
PR-70	Probe
TIP-70	Probe accessory kit

Temperature Probes

Enhance the utility of the humidity/temperature and temperature meters with a selection of K-type temperature probes. Select the probe that best fits the application.



Part #	Probe Type	Temperature Range
TP-1A	Immersion probe, standard	-58° ~ 1,650°F (-50° ~ 900°C)
TP-29	Bead probe, standard	-58° ~ 392°F (-50° ~ 200°C)
TP-2A	Air and gas probe	-40° ~ 570°F (-40° ~ 300°C)
TP-3	Bead probe, hi-temp	140° ~ 900°F (-40° ~ 480°C)
TPK-03	Surface probe, standard	-58° ~ 752°F (-50° ~ 400°C)
TPK-04	Piercing probe	-58° ~ 1,122°F (-50° ~ 600°C)
TPK-05	Surface probe, right angle	-58° ~ 752°F (-50° ~ 400°C)
TP-5300	Platinum RTD	-58° ~ 392°F (-50° ~ 200°C)

Active Differential Probe

Allows safe and accurate floating measurements with your standard analog or digital oscilloscope. Switchable between x 10 and x 100 attenuation. Unit includes black and red probes and protective rubber jacket.



Part # PR-60

Cable Tracer Probe

Used in conjunction with any tone generator on the market, the 240P can trace and identify cables and locate faults, even when cables are in a bundle or hidden in a mess of punch down blocks or wall plates. Special inductive plastic tip which prevents accidental shorts (possible with copper-tip tracers) when using near high voltage devices. Adjustable volume tone amplifier and as LED indicator. Manual and one year warranty is included.



Part # 240P

General Purpose DMM Kit

Attach probes or clips to the sheath plug to complete your test. Soft, flexible silicone leads make movement easy. Voltage and current rated for either electronic or electrical applications. IEC61010-2-031 compliant. Silicone lead wire length 60" (1.5m). Trifold velcro pouch.



Part # TL-130A

Test & Measurement - Probes & Probe Accessories

BK PRECISION

Probes

Fixed attenuation and switchable from 100 to 250 MHz are available. Each probe includes a full accessory kit with a sprung hook, replacement tip and BNC adapter. Models PR-37AG and PR-37AR have REF position on switch for easy ground referencing. IEC61010-2-031 compliant.



Part #	Attenuation	Input Imped. R (Mohm)	C (pF)	Bandwdt. (MHz)	Volt (VDC+AC max)	Comp. (pF)	Cable Lgth	Body Color
PR-100A	x100	100	6.5	250	1200	10..35	48" (1.2m)	Black
PR-150	x1/x10	1/10	42/12	25/150	600	10..30	48" (1.2m)	Lt. Gray
PR-15K	x1000	500	3	5	15,000	-	40" (1.0m)	Red
PR-2000	x100	100	5	200	2000	10..30	48" (1.2m)	Red
PR-33A	x1/x10	1/10	46/16	15/90	600	10..35	48" (1.2m)	Black
PR-37AR	x1/x10/REF	1/10	100/15	6/150	600	10..35	48" (1.2m)	Red
PR-4000	x100	50	5	100	4000	10..30	48" (1.2m)	Red
PR-46A	x10	10	16	250	600	10..35	48" (1.2m)	Gray
PR-55	x1000	100	1	50	10,000	10..30	80" (2.0m)	Yellow
PR-37AG	x1/x10REF	1/10	100/15	6/150	600	10..35	48" (1.2m)	Gray

Flex Probes

Ideal solution for measuring AC currents, especially for hard to reach conductors. Meets the requirements of oscilloscope users regarding broad bandwidth measurement up to 100 kHz. Flexible and lightweight. No restrictions with regard to duty cycle or overload current. Two year warranty.



Part #	Description	Current Range
5335	For multimeters, recorders	30A-300A-3000A
5336	For oscilloscopes, multimeters	300A-3000A
5337	For oscilloscopes, multimeters	30A-300A

Logic Probes

Tests TTL and CMOS. One year warranty.



Part #	Description
DP-21	20 MHz, displays pulse presence and logic states, memory mode "freezes" pulse display, 1M ohm input impedance
DP-52	50 MHz, detects 10ns pulse width, overload protected

Pulsar Probe

For TTL and CMOS. Produces 10mS pulse signal at 100mA. External square wave terminal. Sync input point. One year warranty.



Part # DP-31A

Test & Measurement - Test Leads, Clips & Adapters

FLUKE

Basic Electronic Test Lead Set

Six piece set with zippered case. Probes, alligator clips and tip extenders for electronic applications. CAT II 300 V.



Part # TL80A

Deluxe Electronic Test Lead Set

Twenty-two piece set with quadfold pouch. Includes mini alligator clips, hooks and pincers for virtually every electronic need. Slide-on 1c probe tip adapter and test lead couplers. Both modular test leads and lead-probe combinations. CAT II 300 V.



Part # TL81A

FLUKE

SureGrip™ Clips for Use with Test Leads



AC220



AC280



AC285

Part #	Description
AC220	Insulated, nickel plated jaws grip objects up to 3/8 inch. Blunt tip grabs round screw heads. CAT III 1000 V, CAT IV 600 V, 10 A.
AC280	Profile narrows to .22 inch at tip. Hook opening .20 inch at front, .08 inch at base. CAT III 1000 V, CAT IV 600 V, 3A.
AC283	4.5 inch flexible, insulated shaft. Nickel plated pincers open to .20 inch. CAT III 1000 V, CAT IV 600 V, 1 A.
AC285	Multi-purpose tooth pattern grips anything from fine gauge wire to a 3/4 inch nut. Nickel-plated steel jaws. CAT III 1000 V, CAT IV 600 V, 10 A.
TL238	Insulated tip probes help lessen risk of arc flash explosion. Probe extenders keep hands away from live current. Includes one pair each, insulated tip probes, probe extenders and TL224 test leads. Probes and leads CAT III 1000 V, CAT IV 600 V, 10 A, extenders CAT III 1000 V 10 A.

Test & Measurement - Test Leads, Clips & Adapters

FLUKE

TL220 Industrial Test Lead Set

Starter kit for industrial applications. TP220 has round, stainless steel tip. Includes 1 pair: AC220, TP220, TL222. CAT III 1000 V, CAT IV 600 V, 10A.



Part # TL220

TL221 SureGrip™ Silicone Test Lead Extension Kit

Superior strain relief. Includes two adapters to extend leads 1.5 m. CAT III 1000 V, 10 A, CAT IV 600 V, 10 A.

Part # TL221

TL223 Electrical Test Lead Set

Starter kit for electrical applications. TP1 has flat blades for wall sockets. Includes 1 pair: AC220, TP1, TL224. CAT III 1000 V, CAT IV 600 V, 10 A.

Part # TL223

Premium DMM Test Lead Set

Flexible silicone insulated leads are heat and cold resistant. Distinctive comfort grip probes. Recommended for μV measurements. CAT III 1000 V, 10 A, CAT IV, 10 A.



Part # TL71

Retractable Probe Assembly

Retractable, insulated sharp probe tip. CAT II 300 V, 2 A.



Part # TL40

Push-On Alligator Clips

Slide-on style for test probes. Jaws open to 8 mm. For use with TL71 and TL75 test lead and probe sets. CAT III 1000 V, 10 A, CAT IV 600 V, 10 A.



Part # AC72

Pomona

Multi-Stacking Banana Plug Patch Cord

Gold Plated Finish

X = Length, 12, 24, 36, 48, 60 (inches). Y = Color, -0 (black), -2 (red). Ordering example: 2948-12-0.

Part # 2948-(X)-(Y)



Nickel Plated Finish

18 AWG wire, .144 O.D. Rating is 5000 VDC, 15 amps, 55°C (131°F) maximum. X = Length: 4, 8, 12, 18, 24, 36, 48, 60, 72. Y = Color: -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white). Ordering example: B-48-9.

Part # B-(X)-(Y)

Pomona

Multi-Stacking Sheathed (4mm) Banana Plug Patch Cord

Material is nickel-plated brass. Wire is multi-strand copper. 4ft (1.2m) stackable safety lead. Insulation is silicone. Rating is IEC1010 1000V Cat III, 20A max (10A cont.), 14°F to 176°F (-10°C to 80°C). Std. colors are -0 (black only), -2 (red only).



Part # 6727

Micrograbber® Test Clip Patch Cord

Hook attaches to components up to .040 O.D. 20 AWG wire, .087 O.D. rating is 150V, 3 amps, 102°C (216°F) maximum. X = Length, 12, 24, 36, 48 (inches). Y = Color, -0 (black), -2 (red). Ordering example: 4613-12-2.



Part # 4613-(X)-(Y)

Kit contains 10 pieces of Model 4613-24, one each of ten colors (black, brown, red, orange, yellow, green, blue, violet, gray and white).



Part # 5525

Minigrabber® Test Clip Patch Cord

Feature a slim (.36) body width. Hook attaches to component leads up to .060 O.D. 18 AWG silicone insulated wire, .144 O.D. Rating is 300V, 5 amps per IEC1010-2-031 CAT II. X = Length: 12, 24, 36 (inches). Y = colors, -0 (black), -2 (red). Ordering example: 6246-36-2.



Part # 6246-(X)-(Y)

Hook attaches to component leads up to .060 O.D. 20 AWG wire, .087 O.D. Rating is 300V, 5 amps, 102°C (216°F) maximum. X = Length: 8, 12, 18, 24, 36, 48, 60. Y = Color: -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white).



Part # 3781-(X)-(Y)

One End Only

Y = colors, -0 (black), -2 (red). Ordering example: 6247-48-2.



Part # 3780-60-(Y)

Minigrabber® Test Clip Patch Cord Kit

Kit contains 10 pieces of Model 3781-24, one of each color.



Part # 5523

Test & Measurement - Test Leads, Clips & Adapters

Pomona®

Minipincer® Test Clip Patch Cord

Pincer opens to .090. 20 AWG wire, .087 O.D. Rating is 300V, 5 amps, 80°C (176°F) maximum. X = Length: 12, 24. Y = Color, -0 (black), -2 (red). Ordering example: 5419-8-2.



Part # 5419-(X)-(Y)

Miniature Stacking Banana Plug Patch Cord

20 AWG wire, .087 O.D. Rating is 3000 VDC, 5 amps 55°C (131°F) maximum. X = Length, 4, 8, 12, 18, 24, 36, 48, 60. Y = Color, -0 (black), -2 (red). Ordering example: 1081-4-2.



Part # 1081-(X)-(Y)

SMD Grabber® Test Clip Patch Cord

Pincer opens to .040. 22 AWG wire, .064 O.D. Rating is 150V, 0.5 amps, 102°C (216°F) maximum. X = Length: 6, 12, 24, 36 (inches). Y = Colors: -0 (black), -2 (red). Ordering example: 5301-6-0.



Part # 5301-(X)-(Y)

SMD Grabber® Test Clip Patch Cord Kit

Kit contains 10 pieces of Model 5301-24, one each of ten colors.



Part # 5521

Alligator Test Clip Patch Cords

Alligator Test Clip Patch Cord

Jaws open to .300 18 AWG wire, .144 O.D. Rating is 150V, 5 amps, 50°C (122°F) maximum. X = Length: 4, 8, 12, 18, 24, 36, 48, 60. Y = Color: -0 (black), -2 (red). Ordering example: AL-B-4-0.



Part # AL-B-(X)-(Y)

Minigator Test Clip Patch Cord

Jaws open to .187. 18 AWG wire, .144 O.D. Rating is 45V, 5 amps, 50°C (122°F) maximum. X = Length: 4, 8, 12, 24, 36, 48. Y = Color: -0 (black), -2 (red). Ordering example: MG-B-48-0.



Part # MG-B-(X)-(Y)

20 AWG wire, .087 O.D. Rating is 45V, 5 amps, 50°C (122°F) maximum. Length is 24 inches. Y = Color: -0 (black), -2 (red). Ordering example: 1236-24-2.



Part # 1236-24-(Y)

Alligator Test Clip Patch Cord Kit

Kit contains 10 patch cords, one each of 10 colors. X = Length, 12, 24, 36, 60 (inches). Ordering example: 6356-12.

Part # 6356-(X)

Retractable Sheath Banana Plug Patch Cord

18 AWG wire, .144 O.D. Rating is 1000V per IEC1010-2-031, 10 amps, 80°C (176°F) maximum. X = Length, 12, 18, 24, 36, 48, 60. Y = Color, -0 (black), -2 (red). Ordering example: 4911A-12-2.



Part # 4911A-(X)-(Y)

Pomona®

Miniature Banana Plug Patch Cord

20 AWG wire, .144 O.D. Rating is 3000 VDC, 5 amps, 55°C (131°F) maximum. X = Length: 12, 36 (inches). Y = Color: -0 (black), -2 (red). Ordering example: 2842-12-0.



Part # 2842-(X)-(Y)

Piercing Clips to Bantam Plugs Patch Cords

Two conductor twisted pair cable type. Breakout wire is 18 AWG. Length is 60". Clip type is a bed of nails and single needle.



Part # 6484-60

Stacking Pin Tip Plug Patch Cord

20 AWG wire, .087 O.D. Rating is 3000 VDC, 5 amps, 55°C (131°F) maximum. X = Length, 4, 8, 12, 18, 24, 36, 48, 60. Y = Color, -0 (black), -2 (red). Ordering example: P-12-0.



Part # P-(X)-(Y)

Electrical Test Lead Kits

Deluxe Electronic DMM Test Lead Kit

Modular probes with standard probe tips. Silicone insulated 4 ft. test leads with right-angle DMM plugs fit most meters. Probe tip extender with 3" long tip. Minigrabber® test clip leads attach to test leads. Minipincer® test clip lead for fine pitch chip leads. Maxigrabber® test clips attach to test leads. Nylon storage pouch with compartments for accessories.



Part # 5674C

Basic Electrical DMM Test Lead Kit with Maxigrabber® Test Clips

DMM plugs fit most meters. Maxigrabber® test clips with jaws attach to test leads. Nylon carrying pouch included. Kit contains: Silicone insulated 4 ft. test leads with right-angle DMM plugs, modular electrical test probes with standard tips, Maxigrabber® test clips and nylon storage pouch. Plug type is Straight DMM. Ratings are CAT III 1000V.

Part # 5900A

Deluxe Electrical DMM Test Lead Kit

DMM plugs fit most meters. Alligator clips attach to the test leads for secure connections. Maxigrabber® test clips attach to test leads. Nylon storage pouch to contain all kit components. Kit contains: Silicone insulated 4 ft. test leads, modular electrical test probes with standard tips, Maxigrabber® test clips with jaws, Maxigrabber® test clips with hooks, Maxigrabber® test clips with pincers and large alligator clips. Plug type is Straight DMM. Ratings are CAT III 1000V.

Part # 5904A

Electrical DMM Test Lead Kit

DMM plugs fit most meters. Spade lugs connect to test leads and can be secured to binding posts or terminals. Alligator clips plug into the test leads. Kit contains: Silicone insulated 4 ft. test leads with right-angle DMM plugs, modular electrical test probes with standard tips, extended tip probe adapters, insulated spade lugs, medium alligator clips, large alligator clips and nylon storage pouch. Ratings are CAT III 1000V.

Part # 5673B

Multi-Use DMM Test Lead Kit

DMM plugs fit most meters. Alligator clips attach to test lead for reliable connections. Maxigrabber® test clips with pincers for quick and easy connections. Kit contains: Silicone insulated 4 ft. test leads with right-angle DMM plugs, modular electrical test probes with standard tip, Maxigrabber® with pincer tips and medium alligator clips. Ratings are CAT III 1000V.

Part # 5899A



Test & Measurement - Test Leads, Clips & Adapters

Pomona

Deluxe Multi-Use DMM Maxi-Kit

Modular probes with interchangeable tips. Kit contains: silicone insulated 4 ft. leads with right angle plug, modular probe set with replaceable tips, 5 sets of replacement tips, retractable tip test probe set, test lead coupler set, medium alligator clip set, large alligator clip set, spade lugs, IC probe tip adapter, Minigrabber® test clip leads, Minipincer® test clip leads and nylon storage pouch.



Part # 5677B

SMA Male 50 Ohm Cable

Body/ fittings are passivated stainless steel. Contact is gold plated brass. X = Length. Ordering example: 4846-BB-24.



Part #	Cable Type	Available Length (inches)
4846-BB-(X)	50 ohm, RG316/U, .098" O.D. Rating is 200°C maximum. Loss is .56 dB/ft. at 3.0GHz maximum.	24, 48, 60
4846-K-(X)	50 ohm, RG174/U, .100" O.D. Rating is 85°C maximum. Loss is .45 dB/ft. at 1.0GHz maximum.	24, 48, 60
4846-X-(X)	50 ohm, RG142B/U, .195" O.D. Double shield. Rating is 200°C maximum. Loss is .67 dB/ft. at 12.4GHz maximum.	24, 48, 60

Replacement DMM Test Lead Sets

Monolithic probes with fixed tips. Durable 080 tips for long life. Comfort-grip probe. Silicone insulated 4 ft. leads fit most DMMs from Fluke, HP (Agilent), Wavetek (Meterman), Amprobe, Greenlee and others.



Part #	Description	Plug Type	Ratings
5519A	Standard tip Nickel/brass	Right-angle DMM	CAT III 1000V UL

Replacement DMM Test Leads

Plugs fit most popular DMM's from Fluke, Wavetek (Meterman), HP (Agilent), Amprobe, Greenlee and others. Silicone insulated 4 ft. leads. Retractable sleeve plugs fits all banana jacks, binding posts and DMM input jacks.



Part #	Applications	Features	Ratings
5907A	Hand-held DMM modular test leads	Right-angle DMM plug	CAT III 1000V

Pomona

BNC Male Cable with Molded Strain Relief

Model 2249-C

The 50 ohm RG58C/U .195" O.D. cable makes it ideal for most test and measurement applications. Features long strain reliefs for extended wear.



Part #	Length feet (m)
2249-C-6	0.50 (0.2)
2249-C-12	1 (0.3)
2249-C-24	2 (0.6)
2249-C-36	3 (0.9)
2249-C-48	4 (1.2)
2249-C-60	5 (1.5)
2249-C-72	6 (1.8)
2249-C-120	10 (3.1)
2249-C-144	12 (3.7)
2249-C-180	15 (4.6)
2249-C-240	20 (6.2)
2249-C-300	25 (7.7)
2249-C-360	30 (9.3)
2249-C-600	50 (15.2)

Model 2249-E

Uses 75 ohm .242" O.D. cable, making it the right choice for use with TV, video and LAN signals.



Part #	Length feet (m)
2249-E-6	0.50 (0.2)
2249-E-12	1 (0.3)
2249-E-24	2 (0.6)
2249-E-36	3 (0.9)
2249-E-48	4 (1.2)
2249-E-60	5 (1.5)
2249-E-72	6 (1.8)
2249-E-120	10 (3.1)
2249-E-144	12 (3.7)
2249-E-180	15 (4.6)
2249-E-240	20 (6.2)

Model 2249-K

Offers superior flexibility in a 50 ohm cable.



Part #	Length feet (m)
2249-K-48	4 (1.2)
2249-K-60	5 (1.5)
2249-K-120	10 (3.0)



Your test equipment is only as good as the quality of your probe, test leads & clips. Choose high quality probes and test leads that are best for your specific application. The proper accessory can make the difference in effective testing.

Let our sales representative help you determine which products are appropriate for your application!

Test & Measurement - Test Leads, Clips & Adapters

Pomona

BNC Female to Minigrabber® Test Clips

Rating is 300 VRMS, 55°C (131°F) maximum. Overall length is 7.0"



Part # 3788

Multi-Stacking Banana Plug to Maxigrabber® Test Clip

Hook attaches to components up to .060 O.D. 20 AWG wire, .087 O.D. Rating is 300V, 5 amps, 55°C (131°F) maximum. X = Length; 12, 24, 36, 48, 60 (inches). Y = Color, -0 (black), -2 (red). Ordering example: 4996-48-2.



Part # 4996-(X)-(Y)

Multi-Stacking Banana Plug to Micrograbber® Test Clip

Hook attaches to components up to .040 O.D. 20 AWG wire, .087 O.D. Rating is 150V, 3 amps, 55°C (131°F) maximum. X = Length; 24, 36, 48, 60. Y = Color, -0 (black), -2 (red). Ordering example: 5053-24-(X)-(Y).



Part # 5053-(X)-(Y)

Multi-Stacking Banana Plug to Minigrabber® Test Clip

Hook attaches to component leads up to .060 O.D. 20 AWG wire, .087 O.D. Rating is 300V, 5 amps, 55°C (131°F) maximum. X = Length; 12, 24, 36, 48, 60. Y = Color for 3872, -0 (black), -2 (red). Y = Color for 3782; -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white). Ordering example: 3782-24-0.



Part # 3782-(X)-(Y)

Multi-Stacking Banana Plug to Minipincer® Test Clip

Pincer opens to .090. 20 AWG wire, .087 O.D. Rating is 300V, 5 amps, 55°C (131°F) maximum. X = Length; 24, 36 (inches). Y = Colors, -0 (black), -2 (red). Ordering example: 5421-36-0.



Part # 5421-(X)-(Y)

Multi-Stacking Banana Plug to SMD Grabber® Test Clip

Pincer opens to .040. 22 AWG wire, .064 O.D. Rating is 150V, 0.5 amps, 55°C (131°F) maximum. X = Length, 12, 24, 36. Y = Colors, -0 (black), -2 (red). Ordering example: 5302-24-2.



Part # 5302-(X)-(Y)

BNC Male With Molded Strain Relief To Minigrabber® Test Clips

Rating is 300VRMS maximum, 50°C (122°F) maximum. BNC connector and strain relief material same as Model 2249-C. X = Length. Ordering example: 5187-C-36.



Part #	Cable Type	Available Length (inches)
5187-K-(X)	RG174/U, .100" O.D.	24, 36, 48, 60
5187-C-(X)	RG58C/U, .195" O.D.	24, 36, 48, 60

Pomona

Test Lead Holders



Part #	Color	Max Cable Dia.	No. of Slots
1508	Orange	.210"	14
2708	Blue	.450"	9
4408	Black	.320"	10

Multi-Stacking Banana Plug to Minigrabber® Test Clip

Features a slim (.36) body width. Hook attaches to component leads up to .060 O.D. 18 AWG silicone insulated wire, .144 O.D. Rating is 300V, 5 amps. X = Length, 12, 24, 36 (inches). Y = Colors, -0 (black), -2 (red). Ordering example: 6249-12-0.

Part # 6249-(X)-(Y)

Test Probe with Screw-on Alligator Clips

Test probe has a stainless steel sharp tip with 8/32 threaded base. Alligator clip screws onto probe tip. Test leads fit all standard DMM with safety style banana jacks. Complies to International Safety Standard IEC 1010-2-031. Banana plug is nickel plated beryllium copper. Alligator contacts is nickel plated steel. Spring is steel probe and banana insulation is triax (alloy, nylon, ABS). Alligator insulation is nylon 6. Wire is silicone.



Part # 6723

Alligator Test Clip To Insulated Spade Lug

Jaws open to .300. 18 AWG wire, .144 O.D. Rating is 150V, 5 amps, 50°C (122°F) maximum. Length is 36 inches. Y = Color: -0 (black), -2 (red).



Part # 1960-36-(Y)

Banana Plug to Banana Jack

18 AWG wire, .144 O.D. Rating is 5000 VDC, 15 amps, 55°C (131°F) maximum. X = Length: 12, 24, 36, 48, 60. Y = Color: -0 (black), -2 (red). Ordering example: 4702-24-0.



Part # 4702-(X)-(Y)

Minigrabber® Test Clip With Banana Jack

Banana jack built into plunger. Overall length is 2.54". Rating is 300V, 5 amps, 102°C (216°F) maximum. Y = Color: -0 (black), -2 (red). Ordering example: 4723-2.



Part # 4723-(Y)

.025 Square Pin Receptacle Patch Cord

22 AWG wire, .064" O.D. Rating is 45 VAC/60 VDC, 3 amps, 50°C (122°F) maximum. X = Length, 6, 12, 24, 36 (inches). Y = Color, -0 (black), -2 (red). Ordering example: 4741-6-0.



Part # 4741-(X)-(Y)

Test & Measurement - Test Leads, Clips & Adapters



Retractable Sheath Banana Plug To Banana Jack

18 AWG wire, .144 O.D. Rating is 1000V AC/DC maximum, 7 amps, 55°C (131°F) maximum. Length is 36 inches. Y = Color: -0 (black), -2 (red). Ordering example: 5259-36-0.



Part # 5259-36-(Y)

Piercing Clips to Sheathed Banana Plugs Test Leads

Pierces 19 to 26 AWG wire. Length is 48". Wire is 18 AWG silicone test lead wire. For use with digital multimeters from Fluke, Wavetek (Meterman), Amprobe, Greenlee and others. (Y) = Color: -0 (black), -2 (red). Clip type is a bed of nails and single needle. Ordering example: 6483-48-0.



Part # 6483-48-(Y)

Deluxe Automotive DMM Test Lead Kit

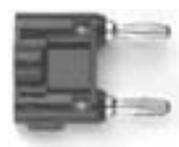
Silicone insulated 4ft (1.2m) test leads with right-angle DMM plugs. Heavy-duty modular test probes with stainless-steel tips. Heavy-duty alligator clips. Insulation piercing clips. Maxigrabber® test clips with alligator jaws. Maxigrabber® test clips with hook. Backprobe pins. Nylon storage pouch.



Part # 6530A

Double Banana Plug With Wire Guide

Set screws secure leads. Simplifies cable construction or component mounting. Accepts cables to 0.22in (5.59mm) dia. max., (18-22 AWG wire). Banana Plug/Jack is brass; Spring is heat treated beryllium copper; Finish is nickel plating. (Y) = Colors -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white). Available colors are Black, brown, red, orange, yellow, green, blue, violet, gray, white.



Part # MDP-(Y)

Stackable Double Banana Plug With Cable Guide

Features simplified attachment of cables or small components by means of set screws. For test versatility, banana plugs can be vertically stacked. Banana plug spring is Beryllium Copper for long insertion life. Colors= 0 (Black), 1 (Brown), 2 (Red), 3 (Orange), 4 (Yellow), 5 (Green), 6 (Blue), 7 (Violet), 8 (Gray), 9 (White). Model: 4892-0 (Gold Plated, Black), Model 4892-2 (Gold Plated, Red).

Part # 4892(Y)

Standard Banana Plugs

Do-It-Yourself Solderless Stackup Banana Plug

Internal set screw holds wire firmly. Accepts 18-22 AWG wire. Accepts standard banana plug, fits standard 0.166 in (4.22mm) dia. banana jack. Banana/jack is brass. Spring is heat treated Beryllium copper. Y = Color: -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white). Ordering example: 1325-7.

Part #	Plating	Available Colors
1325-(Y)	Nickel	Black, brown, red, orange, yellow, green, blue, violet, gray, white
5406-(Y)	Gold	Black, red



Standard Banana Plugs (cont.)

Do-It-Yourself Solderless Stackup Banana Plug with Safety Shield

Internal set screw holds wire firmly. Safety collar insulates exposed wire leads. Accepts 18-22 AWG wire. Accepts standard banana plug, fits standard 0.166 in. (4.22mm) dia. banana jack. Banana plug/jack is brass. Spring is heat treated Beryllium copper. Y = Color: -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white). Ordering example: 1825-2.

Part #	Plating	Insulation	Available Colors
1825-(Y)	Nickel	ABS	Black, brown, red, orange, yellow, green, blue, violet, gray, white
4897-(Y)	Gold	ABS	Black, red

BNC Female To Double Stacking Banana Plugs

Rating is 500VRMS max., 50°C (122°F) max.



Part # 1269

BNC Male To Stackable Binding Posts

Rating is 500 VRMS max., 50°C (122°F) max.



Part # 1296

Panel Mt IEC1010 Banana Jacks for Sheathed Plugs

Gold-plated nickel (72912 and 72913). 1000V Cat III, 36A Max. Y = Colors: -0 (black), -1 (brown), -2 (red), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white).

Part #	Terminal	Available Colors
72912-(Y)	Threaded stud	Black, red
72913-(Y)	Solder Tab	Black, red
72930-(Y)	Threaded stud, hexagonal nut	Black, brown, red, yellow, green, blue, violet, gray, white

Die Cast Aluminum Box with Cover

Shielded protection for your prototype designs, filters and more. Box size is 2.25" x 1.13" x 0.88". Blue bake enamel finish. Cover and screws included with all boxes.

Part #	Description
2390	BNC (F) / BNC (F)
2391	BNC (M) / BNC (F)

IEC Insulated BNC Male 50 Ohm Cable

Insulated BNC connectors for added safety. Meets IEC requirements for 500V CAT I, 150V CAT II. Black.

Part #	Description
72926-C-40	40 in (100cm)
72926-C-80	80 in (200cm)

Insulated BNC Male / 4mm Plugs

Insulated BNC connector and sheathed, stackable plugs for added safety. Thin RG58 cable for shielded, yet flexible connections. Impedance is 50 ohm. 500V Cat I, 150V Cat II, 3A. Black.

Part #	Description
72927-C-40	40 in (100 cm)
72927-C-80	80 in (200cm)



Test & Measurement - Test Leads, Clips & Adapters

Pomona

IEC Insulated BNC to Stackable/Retractable Sheath Banana Plugs

Insulated BNC connector and sheathed, stackable/retractable plugs for added safety. Impedance 50 ohm. Rating is 33 Vrms / 70 Vdc, 6A. Length is 10 in (25cm).



Part #	Description
72908	BNC (m)
72909	BNC (f)

SMD High Density Circuit Test Kit

Includes: 2 DMM leads with 4mm plugs, 2 test probes with spring-loaded tips, 6 micro SMD grabbers (72902), 6 adapter leads 0.8mm female to 0.4mm jack, 2 mini SMD grabbers with 4mm connectors, 2 holding rods (72903).



Part # 72935

Micro SMD Grabber Test Clips Kit

Kit of 12 Micro SMD Grabbers in 6 colors. Grabbers are designed for easy attachment to SMD chips with pitches down to 0.008" (0.20 mm). Insulated tip minimizes shorting on adjacent pins. Gold plating for low resistance connections. Kit also includes 6 holding rods to reinforce connection positions during side-by-side measurements. Also includes 12 micro leads with 0.8mm female/0.8mm male connectors.



Part # 72902

Clip Lead for Micro SMD Grabber 0.8mm/4mm

Clip lead for easy attachment of Micro SMD Grabber or Mini SMD Grabber to standard test leads. 0.8mm female/4mm female. Black. For red, replace suffix with -2.



Part # 72905-0

Mini SMD Grabber Test Clip

Designed for easy attachment to SMD chips with pitches down to 0.032" (0.80 mm). Insulated shaft can be bent up to 36° for versatile attachment in awkward locations or close proximity to other clips. Rotating jaws increase versatility in connection and stacking. Thin (3 mm) profile allows close placement to adjacent clips. Compatible with leads with Ø0.8mm female connectors. Black. For red, replace suffix with -2.



Part # 72906-0

Mini SMD Grabber Test Clip with Lead and 4mm Jack

Mini SMD grabber test clip with 20 inch (50cm) lead and 4mm jack for easy attachment to DMM leads. Black. For red, replace suffix with -2.



Part # 72929-20-0

SMD Test Probe with Sharp, Spring Mounted Tip

SMD test probe with sharp, spring mounted tip and 2mm jack. Provides ultra-fine control for probing high density SMD circuits. Very fine 0.03 inch (0.7mm) diameter stainless steel tip is spring mounted for controlled pressure. Removable, clear IC insulator cap prevents shorting of adjacent IC loges. Sheathed 2mm receptacle adapts to 2mm test leads and adapters. Black. For red, replace suffix with -2.



Part # 72923-0

Pomona

Mini Alligator Clip With 2mm Jack

Rating: 600V Cat II, 10A. Black. For red, replace suffix with -2.



Part # 72924-0

2mm/4mm Male-Male Test Leads

39 inches (991mm). Black. For red, replace suffix with -2.



Part # 72936-0

4mm/2mm Plug/Jack Adapters

Allow easy adaptation between standard 4mm jacks and plugs and SMD test 2mm jacks and plugs. Black. For red, replace -0 suffix with -2.



Part #	Description
72914-02	4mm jack/2mm plugs (1 black and 1 red)
72914-0	4mm jack/2mm plug
72915-0	2mm jack/2mm plug
72916-0	4mm jack/2mm jack
72917-0	4mm plug/2mm jack

Insulated BNC to Dual 4mm Bananas

Insulated BNCs and sheathed banana jacks and plugs provide added safety. Meets IEC rating of 500V Cat I, 150V Cat II.



Part #	Description
72910	BNC male to 2 banana plugs
72911	BNC female to 2 banana plugs
72937	BNC male to 2 banana jacks
72938	BNC female to 2 banana jacks

Multi-RF Direct Adapter Kit

A comprehensive kit including the most frequently used 50 ohm RF adapters in a rugged pistol-grip case. Allows for direct adaptation without intermediate couplers. All parts are precision machined brass, not die-cast, with tarnish resistant nickel plating. Male center pin contacts are gold plated brass. Female center contacts are gold plated heat treated beryllium copper. Insulation material is high density PTFE. Includes part numbers 3535, 3288, 3844, 4288, 4290, 4289, 4291, 4298, 4297, 4299, 4292, 4294, 4293, 4295, 4296, 3283, 3533, 3285, 3284, 4940, 3841, 3842, 4282, 4283, 4284 and 4286.



Part # 72934

SMA Adapter Kit

A consolidated kit including the most frequently used SMA adapters in a rugged pistol-grip case. Allows for direct adaptation without intermediate couplers. All parts are precision machined brass, not die-cast, with tarnish resistant nickel plating. Male center pin contacts are gold plated brass. Female center contacts are gold plated heat treated beryllium copper. Insulation material is high density PTFE. Includes part numbers: 4282, 4283, 4284, 4286, 4289, 4290, 4291, 4292, 4293, 4294, 4295, 4296, 4297, 4298 and 4299.



Part # 72931

Test & Measurement - Test Leads, Clips & Adapters

Pomona

N Adapter Kit

A consolidated kit including the most frequently used Type N adapters in a rugged pistol-grip case. Allows for direct adaptation without intermediate couplers. All parts are precision machined brass, not die-cast, with tarnish resistant nickel plating. Male center pin contacts are gold plated brass. Female center contacts are gold plated heat treated beryllium copper. Insulation material is high density PTFE. Includes part numbers: 3288, 3535, 3841, 3842, 3843, 4286, 4297, 4298, 4299, 5089, 4240-50 and 4240-75.

Part # 72932



Broadcast BNC Adapter Kit

A comprehensive kit including the most frequently used 75 ohm BNC adapters in a rugged pistol-grip case. Allows for direct adaptation without intermediate couplers. All parts are precision machined brass, not die-cast, with tarnish resistant nickel plating. Male center pin contacts are gold plated brass. Female center contacts are gold plated heat treated beryllium copper. Insulation material is high density PTFE. Includes part numbers: 6737, 6738, 67.9, 6740, 6754, 6779, 6780, 6781, 6782, 1297, 3837, 4043, 4267, 5319, 4054, 4719, 5008, 6519 and 3840-75.

Part # 72933



Multi-Stacking Double Banana Plug to Minigrabber® Test Clips

Rating is 300 VRMS, 50°C (122°F) maximum. Cable type is RG58C/U, .195" O.D. X = Length, 18, 24, 36, 48, 60. Ordering example: 3786-C-60.

Part # 3786-C-(X)



Do-It-Yourself Minigrabber® Test Clips

Overall length is 2.54". Rating is 300V, 5 amps, 120°C (126°F) maximum. Y = Color. Available colors: -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white). Ordering example: 3925-8.

Part #	Description
3925-(Y)	.090" Max. Wire Dia. (inches)
4555-(Y)	.144" Max. Wire Dia. (inches)
4176-02	Kit contains 2 pieces of 3925, one black/one red
5522	Kit contains 10 pieces of 3925, one of each color



Bantam Plug To Minigrabber® Test Clips

Rating is 300 VRMS, 50°C (122°F) maximum. Cable type is 2 conductor shielded cable, .180" O.D. Brass or nickel plated. Length is 60 inches.

Part # 5019N-60



SMD Grabber® Test Clip With .025" Square Pin

Pincer type contact designed for testing .050" lead pitches such as SOJ, SOIC and PLCC surface mounted packages. Overall length is 1.71". .15" sq. access hole leads to .025" sq. pin. Overall length is 1.73". Rating is 150V, 0.5 amps, 102°C (126°F) maximum. Y = Color. Available colors: -0 (black), -1 (brown), -2 (red), -3 (orange), -4 (yellow), -5 (green), -6 (blue), -7 (violet), -8 (gray), -9 (white). Ordering example: 5360-7.

Part #	Description
5927	Test clip with .025" Sq. Pin Kit. Contains 10 Model 5360 clips, one of each color.
5360-(Y)	Test clip

Pomona

Do-It-Yourself Minipincer® Test Clip

Pincer type contact. Overall length is 2.59". Rating is 300V, 5 amps, 80°C (176°F) maximum. Y = Color: -0 (black), -2 (red), -4 (yellow), -5 (green), -6 (blue). Ordering example: 5418-2.

Part # 5418-(Y)



Maxigrabber® Test Clip Set with Jaws

Set of 2, one red and one black. Alligator jaws open to fit 0.50" dia. Overvoltage CAT III, 1000V, 10A per IEC1010-2-0312.

Part # 5912B



Medium Alligator Clip Sets

Fits on any DMM or banana plug test lead. Rated CAT III 300V 5A. Jaws open to 0.30".

Part # 5916A



Bantam Plug To Two Alligator Clips

Rating is 150 VRMS, 50°C (122°F) maximum. Cable type is 2 conductor shielded microphone, .180" O.D. Brass. X = Length: 36, 60 inches. Ordering example: 5026-36.

Part # 5026-(X)



Micro SMD Grabber® Test Clip For 1.25 to 0.2 MM Lead Pitch

Use with PQFP, SOIC, TSOP and SSOP packages with lead pitches down to 0.2 to 0.5 mm. Thin body allows an unlimited number of clips to be stacked side by side. Maximum frequency is 100MHz. Rating is 45V. Supplied with female to male flying leads.

Part #	Profile Height	Lead Pitch	Tip	Qty	Colors
6311	14mm	.85 - 0.2mm	Long	2	2
6312	14mm	1.25 - 0.3mm	Long	2	2
6313	14mm	1.25 - 0.3mm	Short	2	2
6351	14mm	.85 - 0.2mm	Long	10	2
6352	14mm	1.25 - 0.3mm	Long	10	2
6353	14mm	1.25 - 0.3mm	Short	10	2



Insulation Piercing Clip Sets

Double V block centers wire. Set of two (red and black jacks). Bright yellow for easy location. Attach to test leads.

Part #	Type
6405	Test lead clip
6413	Probe tip adapter



Multi-Stacking Banana Plug To Alligator Test Clip

Jaws open to .300. 18 AWG wire, .144 O.D. Rating is 150V, 5 amps, 50°C (122°F) maximum. X = Length: 8, 12, 24, 36, 48, 60. Y = Color: -0 (black), -2 (red). Ordering example: 1166-12-0.

Part # 1166-(X)-(Y)



Banana Plug To Alligator Clip Patch Cord Kit

Kit contains 10 1166 patch cords, one each of 10 colors. Length is 36 inches.

Part # 6357-36



Test & Measurement - Test Leads, Clips & Adapters

Pomona

Alligator Test Clip To Pin Tip Jack With Insulator

Alligator clip has .300" maximum jaw opening. Accepts .080" dia. pin. Overall length is 2.16". Rating is 150V, 5 amps, 50°C (122°F) maximum. Sold unassembled, 10 clips and 10 insulators per package. Y = Color, -0 (black), -2 (red). Ordering example: 1437-0.



Part # 1437-(Y)

Alligator Test Clip To Banana Jack With Insulator

Alligator clip has .300" maximum jaw opening. Overall length is 2.16". Rating is 150V, 5 amps, 50°C (122°F) maximum. Sold unassembled. Y = Color. Available colors: -0 (black), -2 (red). Ordering example: 2240-2.



Part #	Description
2240-(Y)	10 clips and insulators/pkg. Nickel plating.
3289-(Y)	1 clip and insulator/pkg. Gold plating.

Insulated Minigrabber Test Clip To Pin Tip Jack

Alligator clip has .187" max. jaw opening. Overall length is 2.05". Rating is 45V, 5 amps, 50°C (122°F) maximum. Y = Color, -0 (black), -2 (red). Ordering example: 3491-0.



Part # 3491-(Y)

Do-It-Yourself SMD Grabber® Test Clips

Pincer type contact designed for testing .050" lead pitches such as SOF, SOIC and PLCC surface mounted packages. Overall length is 1.71". .090 dia. maximum wire opening. Rating is 150V, 0.5 amps, 102°C (216°F) maximum. Y = Colors: -0 (black), -2 (red), -5 (green). Ordering example: 5243-0.



Part # 5243-(Y)

Extra Large Alligator Clip Set

Insulated clip with sheathed 4mm receptacle accepts flexible lead sets 5907A, 5908A, and 5909A. Jaw opens to 1.0" maximum. Overall length is 3.5". Conforms to IEC1010-2-031, Overvoltage category III, 1000V, 20 amps max. Set of 2 clips black and red.



Part # 6041B

Unplated WE310 Plug To Minigrabber® Test Brass Clips

Rating is 300 VRMS, 50°C (122°F) max. Cable type is two conductor shielded twisted pair. Length is 60 inches.



Part # 4812-J-60

BNC Male 50 Ohm Cable

Rating is 500 VRMS max., 80°C (176°F) max. Cable type is 50 ohm, RG58 type .195" O.D. X = Length (in.): 6, 12, 24, 36, 48, 60, 72, 120, 180, 240.



Part # 5697-(X)

Pomona

Terminal Strip Adapter, 4mm Safety Banana Jack to 6/32

Easily connect your DMM safety sheathed test leads to terminal strips via this handy 6/32 thread adapter. Material is nickel-plated brass. Insulation is lucel acetal polymer. For CE compliance, not intended for hand held use at voltages above 33 Vrms/70 Vdc, (14°F to 212°F) -10°C to 100°C. Std. colors are -0 (black) and -2 (red).



Part # 6720

Do-It-Yourself 4mm Stackable Banana Plug

Build your own safety stacking leads with do-it-yourself safety-sheathed 4mm stackable banana plugs. Material nickel-plated brass. Insulation is lucel acetal polymer. Rating is ICE1010 1000V Category III**, 20A, 14°F to 176°F (-10°C to 80°C). Std. color are -0 (black) and -2 (red). **When plug is correctly assembled and terminated.



Part # 6721

4mm Safety Banana Jack to Banana Plug Adapter

Accepts safety-sheathed 4mm banana plug and adapts to standard banana plug. Material is nickel plated brass. For CE compliance, not intended for hand held use at voltages above 33 Vrms/70 Vdc. Std. colors: -0 (black) and -2 (red).



Part # 6728

Do-It-Yourself 4mm Right Angle Banana Plug

Build your own safety leads with do-it-yourself safety-sheathed 4mm right angle banana plug. Material is nickel-plated brass. Insulation is lucel acetal polymer. Rating is IEC1010 1000V Category III**, 20A, 14°F to 176°F (-10°C to 80°C). Std. colors are -0 (black) and -2 (red). **When plug is correctly assembled and terminated.



Part # 6729

Kelvin Lead Set with Kelvin Clips

Gold-plated Kelvin clip jaws allow 4-wire resistive measurements. Silicone insulated 3.3ft (1m) test lead. Safety sheathed straight DMM plugs for convenient bench use. Clips firmly grip test points for low-loss connection. Rating for CE compliance is not intended for hand held use at voltages above 33 Vrms/70 Vdc.



Part # 6730

Universal Power Adapter

Optional power adapter for 6731 Active Differential Probe.

Part # 6732

Test Lead Wire with Silicone or PVC Insulation

Choose from heat-resistant silicone or PVC insulation. 50ft (15.2m) of unterminated 18 AWG test lead wire. Very flexible with 6 strands of 36 AWG tinned copper conductor. Create you own test leads with the adapters. Wide temperature range of -58°F to 302°F (-50°C to 150°C) with PVC insulation. Std. colors are -0 (black), -2 (red).



Part #	Insulation Type
6733	Silicone
6734	PVC

Test & Measurement - Test Leads, Clips & Adapters

Pomona

BNC Male 50 Ohm Cable - Field Serviceable Connector

Rating is 500 VRMS max., 80°C (176°F) max. Cable type is 50 ohm, RG568C/U, .195" O.D. BNC: Body: Brass, tarnish resistant plating. Dielectric is PTFE. Center contact is gold plated brass. X=Length (in.): 6, 12, 18, 24, 36, 48, 60, 72, 96.

Part # BNC-C-(X)

AMPROBE / **Meterman**

Test Leads

Part #	Description
DL243C	Deluxe Silicon Test Lead Kit. Includes lead wires, standard tips, alligator clips, spade lugs, and carry case. EN61010-2-031 Safety Approved.
DL248C	Same as DL243C plus spring loaded crimp tips and tip length extenders.
TL245	Standard test leads with shrouded banana plugs, 36" (91cm).
TL246B	Large 0.5" (12.7mm) jaw, alligator clip with 48" (122cm) silicon insulated lead wires.
TL35A	Test leads with shrouded banana plugs and alligator clips.
TL36	Test leads with shrouded banana plugs and CE approved alligator clips.

BK PRECISION

Semiconductor Test Leads

Specialized semiconductor test lead set for testers. Three conductor lead with 4mm banana plugs to mini-IC test clips in yellow, green and blue. Length is 30 (76 cm).

Part # FP-6

Replacement Test Leads

Deluxe test lead sets. IEC61010 1000V CATIII rating. Silicone lead wire length 60" (1.5 m). Black alligator clip included. Threaded tips fit TL-3 Accessory Kit items.

Part # TL-2A

Economical replacement test leads. 1500V 3A ratings. PVC lead wire, 40" (1.0 m). Black and red alligator clips.

Part #	Description
TL-1	Safety shrouded banana plugs
TL-4	Un-shrouded banana plugs

BK PRECISION

Test Accessory Pairs

Part #	Description
AD-101	Banana plug adapter set with 42V (1000V) 36A rating with trained user.
CC-104	Silicone lead set with highly flexible silicone jacket, 4mm sheathed straight to right-angle plugs, 60" (1.5m) length, and IEC61010 1000V CATIII 12A rating.
TIP-102	Insulated alligator clip set with IEC61010 1000V CATIII 20A rating.
TIP-104	Insulated space lug set with 42V (1000V) 36A rating with trained user.
TIP-110	Very fine tip probe set with extended length with SS tip and IEC61010 1000V CATIII 20A rating.
TIP-125A	Alligator style clip set with rigid clip body and IEC61010 1000V CATIII 20A rating.
TIP-127	Flexible pincer clip set with flexible shaft and IEC61010 1000V CATIII 6A rating.
TIP-129	Standard alligator clip set with IEC61010 300V CATI 3A rating.
TIP-130	Probe body set with 2mm probe tip and IEC61010 1000V CATIII 36A rating.
TL-140	Five-way test clip with five-way communication clip and 60" (1.5m) silicone leads.

Special BNC Cable Assemblies

Standard BNC to alligator clips or sheathed stacking plugs. Model CC-21 is black, molded strain release boot provides for long-life. RG58C/U cable with 50 ohm impedance. Model CC-130 with fully insulated BNC male to sheathed stacking 4mm plugs. Meets IEC61010 safety standards. Includes highly flexible RG58 type cable in 2.0 meter length.

Part #	Length
CC-130	80" (2.0 m)
CC-21	40" (1.0 m)

BNC Cable Assemblies

Standard BNC cable assemblies in convenient lengths. Black, molded strain release boots provides for long-life. RG58C/U cable and 50 ohm impedance. CC-110 is a fully insulated BNC male to male cable assembly. Meets IEC61010 safety standards. Uses highly flexible RG58 type cable in two meter length.

Part #	Length
CC-110	80" (2.0 m)
CC-150	48" (1.2 m)

IDEAL

Test-Pro® Alligator Clips

Connect to Deluxe Test Leads to increase lead length to 52 inches.

Part # 61-443

Twin Lead Tester

Check voltage from 80V to 500V AC/DC. Heavy-duty test probes. Five year warranty.

Part # 61-503

Test & Measurement - Test Leads, Clips & Adapters



Test Lead Accessories



Part #	Description	For Use With
TL-5	1 red and 1 black, with 2 industrial type long insulated prod handles and spade pointed probe tips connected to UL-1244 Type Safety Shielded 90 degree male banana jacks	61-740, 61-741 and 61-742
TL-58	Standard test leads	360 Series, 640 Series and 61-631
TL-100	Premium test leads with alligator clips included	Works with 320 Series Meters
TL-104	Premium test leads with alligator clips included	Works with 770, 760 Series

Modular Adapters

Reverse-wired adapters for easy testing of circuits without service interruption. Easy-to-read label identifies individual conductors and pins defined with number, color and polarity identifications. Large perforated test pads allow secure attachment of test probes and alligator clips. Sturdy, stainless steel belt clip.



Part #	Description
62-098	8-position adapter, EIA/TIA Category 5 jacks, internal circuit design to reduce attenuation, coupling, NEXT
62-096	6-position adapter, LED indicators display jack addresses, polarity, incoming call identification, push button tip/ring test
62-094	4-position adapter, high-performance jacks



Test Leads and Clips/Cable Ties

40mm Insulated Alligator Clips

Part #	Description
33-411-0	Bulk black
33-412-0	Bulk red
33-419-10	Pkg 5 red/black

51mm Alligator Clips (with screw)



Part #	Description
33-430-0	Bulk
33-430-10	Pkg 10

51mm Insulated Alligator Clips



Part #	Description
33-431-0	Bulk black
33-432-0	Bulk red
33-439-10	Pkg 5 red/black

51mm Vinyl Insulators



Part #	Description
33-491-0	Bulk black
33-492-0	Bulk red
33-499-10	Pkg 5 red/black

Test Leads and Clips/Cable Ties (cont.)

Clip Lead Sets

Set of 10 18" clip leads with 31mm insulated clips. 24 AWG stranded wires. Colors are 2 red, 2 black, 2 green, 2 yellow and 2 white.



Part #	Description
33-210-0	Bulk set of 10
33-210-10	Display pkg

Seizer Probes



Part #	Description	Length
33-360-2	Pkg 1 red 1 black	-
33-361-0	Black	55mm
33-362-0	Red	55mm

Set of 4 heavy duty 30" clips leads with 50mm clips. Colors are black, red, yellow and white.



Part #	Description
33-230-0	Bulk set 4
33-230-4	Display pkg

Set of 10 heavy duty 30" clip leads with 50mm clips. Five different colors.



Part #	Description
33-220-0	Bulk set 10
33-220-10	Display pkg

32mm Alligator Clips



Part #	Description
33-400-0	Bulk
33-400-10	Pkg 10

32mm Insulated Alligator Clips



Part #	Description
33-409-0	Bulk
33-409-10	Pkg 10

32mm Vinyl Boots

Part #	Description
33-400B-0	Bulk black
33-400R-0	Bulk red



Test & Measurement - Test Leads, Clips & Adapters

Paladin Tools

philmore

Modular Plug Adapters

Use these adapters to connect butt sets, telephone test sets, tone generators and network test equipment to data and telephone lines using modular plug connections to perform testing of the signals and data being carried. Nylon-reinforced ABS plastic. Easy-to-read wire layout label. Removable/replaceable cord. In-line adapters. Snagless plugs and belt clip. One year warranty. Copper contacts are notched to keep alligator clips attached during testing.



Part #	Description
1902	8-way RJ45 modular plug adapter
1903	6-way RJ11 modular plug adapter
1904	4-way RJ22 modular plug adapter

philmore

Test Leads

Plastic test prod handles, 4" long, 3/8" diameter, with prods 1" long. Red and black. Equipped with 48" kinkless plastic-covered leads .135" O.D. Available with either insulated banana plugs or phone tips at other end, to fit standard American jacks.



Part #	Test Lead Type
466	Phone tips
467	Banana plugs

All-Purpose Test Lead Set

Tiny, sturdy, push-to-clip prods can be firmly attached to hard-to-reach components in chassis-whether large or small terminals. Clip-onto-component feature enables you to test parts for long periods without actually handling the test leads. Each prod is connected with solderless, kinkless wire terminating in an insulated banana plug. A removable, nickel-plated phone tip (supplied) fits over the banana plug allowing the individual the option of using meters with either banana or phone tip jacks. Overall leads length is 36 inches. Two unbreakable high dielectric strength prods, black and red.



Part # 470

IC Test Lead Set

Five color-coded, 16" test leads with miniature hook-on prods at both ends. A must for technicians and experimenters who want temporary interconnects with out danger of shorting. Colors are red, black, yellow, green and white.



Part # 500

Deluxe Universal Solderless Test Lead Set

Two 42" flexible, vinyl-covered test leads, heavily insulated to prevent high voltage breakdown and cut-through. 80-strand copper conductors eliminate wire fatigue and assure long life. Each lead is attached to a 4 3/4" probe (1 red and 1 black). Banana plugs on each end have nickel-plated phosphor bronze springs to maintain rigid contact through many thousands of insertions. Heavy plated brass adaptors - color-coded spade lugs large enough for lab instruments (up to 1/4" diameter center post). Test prod phone tips is 0.180" diameter.



Part # SA15

Alligator Clip with Barrel

Standard clip with barrel for banana plug. Solder or crimp connection. Two inch long with jaw opens 3/8". Display packaged (5) pieces. Add "B" to end of part number for bulk.



Part # 10119

10A Medium Alligator Clips

The most handy size alligator clip ever manufactured. It has 1001 uses. Length is 1 1/2". Jaw opening is 7/16". Nickel plated steel. Five pack. Add "B" to end of part number for bulk packaging.



Part # 10170

5A Miniature Alligator Clip

These alligator clips are medium size. They can handle current of up to 5A. Length is 1 3/32". Jaw opening is 3/8". Nickel plated steel. Five pack. Add "B" to end of part number for bulk packaging.



Part # 10151

Alligator Clips



Nickel Plated Subminiature Alligator Clips

Part #	Description
10120	Nickel plated with screw connection. Strong spring with hard bite. 2" long. No soldering necessary.
267	Exceptionally small clip ideal for printed circuit and miniature testing. Strong spring for sure grip. Only 7/8" long. Bulk.

Insulated Alligator Clips

Equipped with screw, making it ideal for solderless connection. Overall length 2", plastic insulating sleeve 5/8".



Part #	Availability
10120B	Bulk, black
10120R	Bulk, red

Automotive Alligator Clip - 10 Amp

Red and black insulator (2 3/4" long). Crimp or screw connection. 2 3/32" long with jaw opens 1/2". Available with 1 red and 1 black clip.



Part # 10143

Medium Alligator Clip Insulators

These insulators are intended to be used with 269 or equivalent alligator clips. Length is 1 1/2". Material is PVC.



Part #	Color
10179BK	Black
10179GR	Green
10179RD	Red
10179WH	White
10179YE	Yellow
10179BU	Blue

Test & Measurement - Test Leads, Clips & Adapters



Medium Alligator Clip Insulators (cont.)

These insulators are intended to be used with 10119, 10120, 270, 10170 or equivalent alligator clips. They are the most popular size. Length is 1 15/16". Material is PVC.



Part #	Color
10180BK	Black
10180GR	Green
10180RD	Red
10180WH	White
10180YE	Yellow
10180BU	Blue

Crocodile Clip Insulators

These insulators are designed to work with 10143 or similar clips. They are available in several colors. Length is 2 1/2".



Part #	Color
10190BK	Black
10190BU	Blue
10190GR	Green
10190RD	Red
10190WH	White
10190YE	Yellow

Hook-On Test Prods

Completely insulated. The injector-type prods that firmly clip onto large or small components. Allows meter reading for any required length of time.



Part #	Description
450	Our most popular standard size, 2 1/4" long. Set of two - black and red
4504	Set of four - black, red, green and yellow
4506	Set of six - black, blue, green, red, white and yellow
450B-BLK	Black, bulk
450B-BLU	Blue, bulk
450B-GRN	Green, bulk
450B-RED	Red, bulk
450B-WHT	White, bulk
450B-YEL	Yellow, bulk
4504S	Set of four - black, red, green and yellow
4506S	Set of six - black, blue, green, red, white and yellow
450S	This mini clip is ideal for those crowded, hard-to-get-at circuits, 1 9/16" long. Set of two - black and red.
450SB-BLK	Black, bulk
450SB-BLU	Blue, bulk
450SB-GRN	Green, bulk
450SB-RED	Red, bulk
450SB-WHT	White, bulk
450SB-YEL	Yellow, bulk

Automotive Alligator Clip - 20 Amp

Red and black insulator (3 3/32" long). Crimp or screw connection. 2 17/32" long with jaw opens 5/8". Available with 1 red and 1 black clip.



Part # 10144



Economy Alligator Clips - 5 Amp

Red and black insulator (2" long). Crimp or screw connection. 1 11/16" long with jaw opens 3/8". 1 red and 1 black.



Part # 10142

Heavy Duty Alligator Clip - 30 Amp

Red and black insulator (3 3/16" long). Crimp or screw connection. 2 25/32" long with jaw opens 1/2". 1 red and 1 black.



Part # 10145

Insulated Alligator Clip

Red and black molded handle. Screw connection. 2" long with jaw opens 7/16". 1 red and 1 black.



Part # 10125

Miniature Plier-Type Alligator Clip - 15 Amp

Red and black insulator (7/8"). Crimp or solder connection. 2" long with jaw opens 13/16". 1 red and 1 black.



Part # 10139

Plier-Type Alligator Clip - 50 Amp

Red and black insulator (1 3/4" long). Crimp or solder connection. 3-29/32" long with jaw opens 15/16". Display packaged; 1 red and 1 black



Part # 10141

Alligator Clips With Plastic Boots

Strong spring sure-grip nickel plated alligator clips, with snug-fitting insulating plastic boots. (1) each black and red of 268, 269 and 270.



Part # 10121

Miniature Alligator Clip Insulators

These insulators are intended to be used with 268, 10151 or equivalent alligator clips. Length is 1 5/16". Material is PVC.



Part #	Color
10159BK	Black
10159BU	Blue
10159GR	Green
10159RD	Red
10159WH	White
10159YE	Yellow



