

Put Fluke tools on every tool belt.

Now you can equip utility specialists, technicians and linemen with a full complement of portable tools for utility applications including:

- Clamp meters
- Digital multimeters
- Earth ground
- Infrared thermometers
- Insulation resistance
- Power quality
- Process tools
- Thermography
- Voltage testers

Trust our tools for rugged reliability and safety from the truck to the substation, wherever this mission critical work takes your team. All are designed, manufactured, and calibrated with Fluke bench-top calibrators, the best in the world. So you know that quality and precision is engineered into every component. To keep your Fluke tools operating at peak performance, you can easily calibrate them in your cal lab using Fluke calibration equipment and the recommended procedures we supply.

More information and resources.

You can always count on Fluke for the troubleshooting techniques, application information, and training to keep your power distribution network up and running. Visit our web site at www.fluke.com/utility

To learn more, or for a product demonstration contact us at utilitysupport@fluke.com or call 1-866-305-4217

Fluke. *Keeping your world up and running.®*

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

Fluke Europe B.V.
PO Box 1186, 5602 BD
Eindhoven, The Netherlands

For more information call:
In the U.S.A. (800) 443-5853 or
Fax (425) 446-5116
In Europe/M-East/Africa +31 (0) 40 2675 200 or
Fax +31 (0) 40 2675 222
In Canada (800)-36-FLUKE or
Fax (905) 890-6866
From other countries +1 (425) 446-5500 or
Fax +1 (425) 446-5116
Web access: <http://www.fluke.com>

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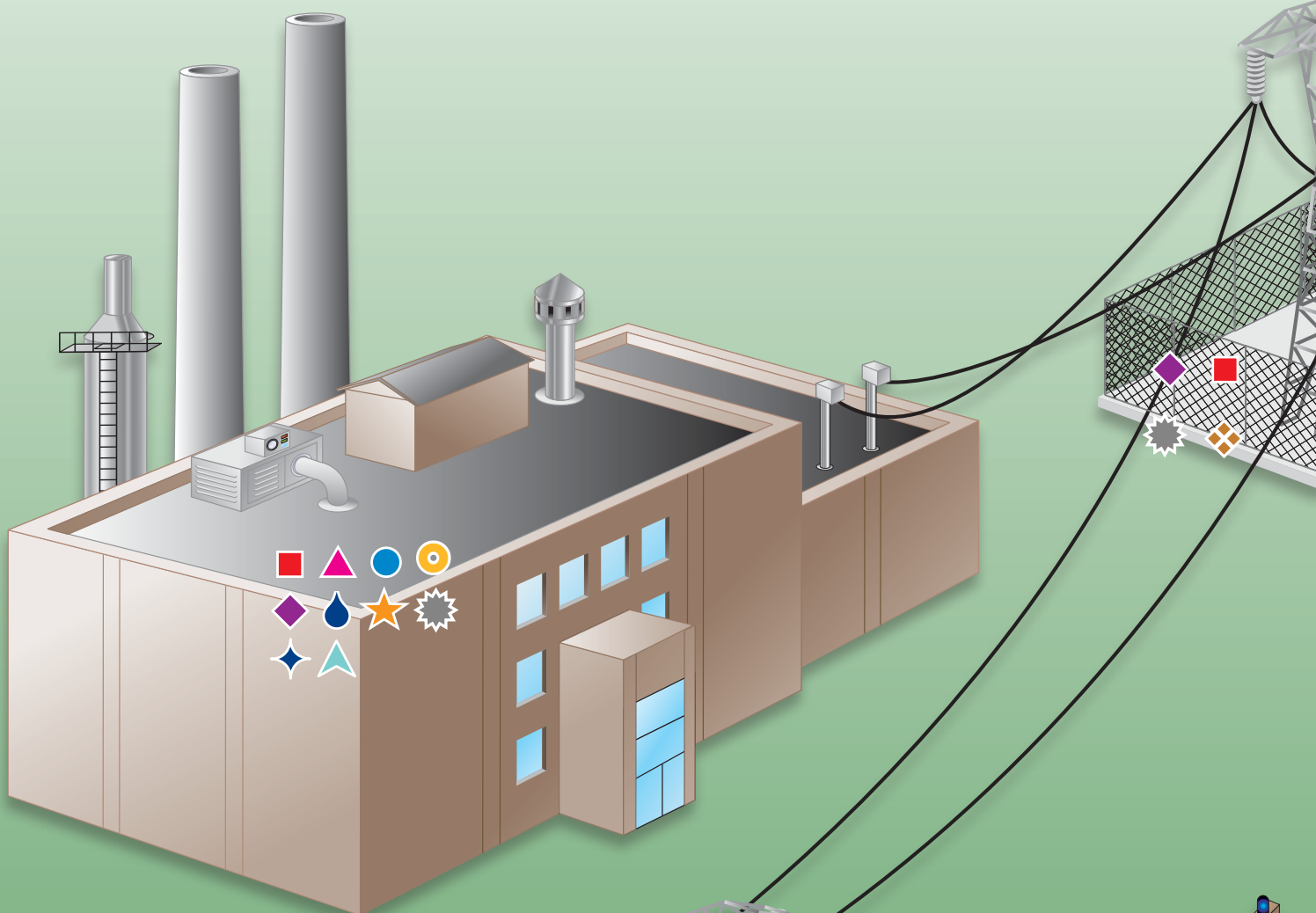
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FLUKE®

Utility Test Tools

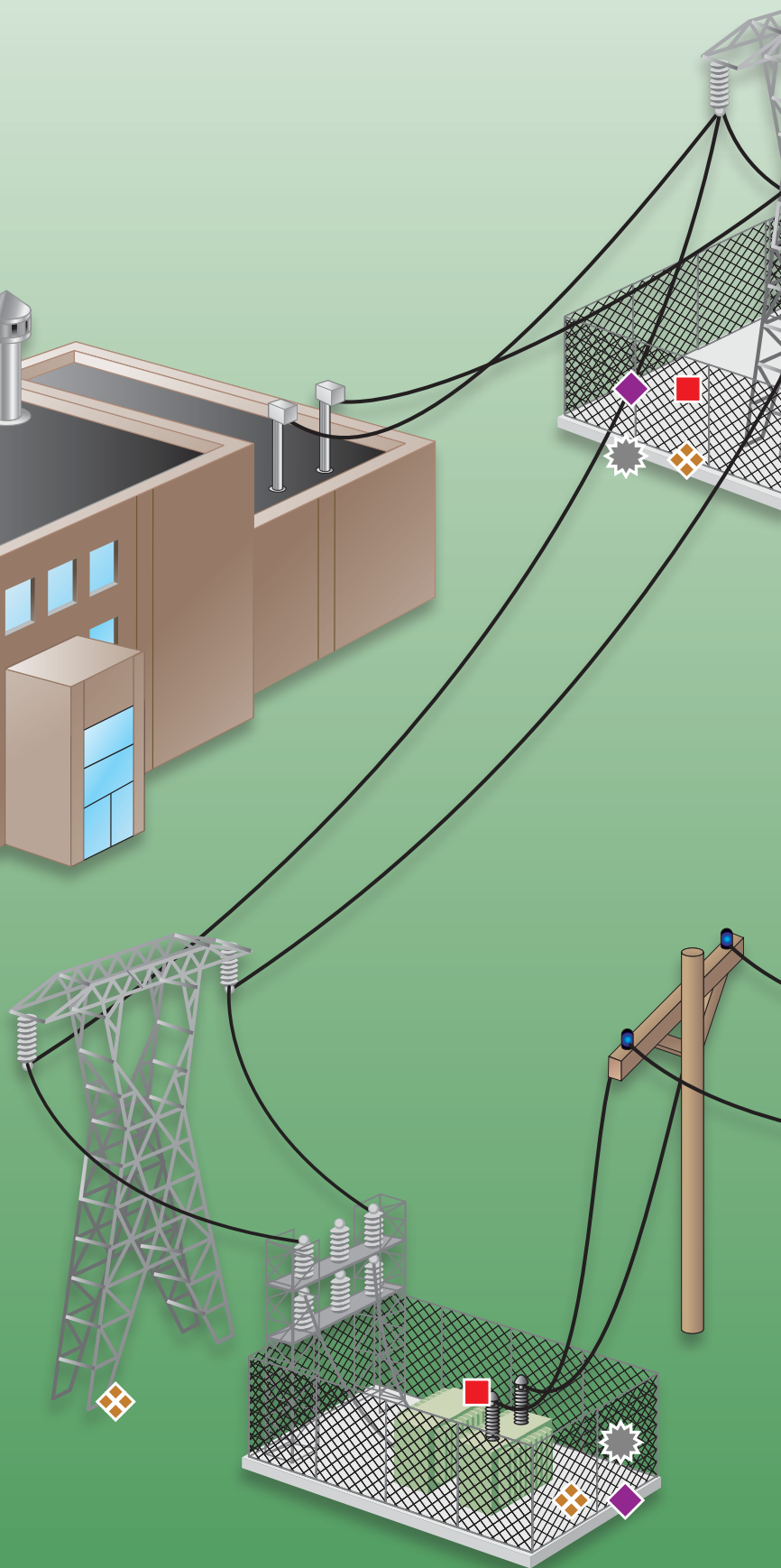
The power of productivity. The tools, training and support for utilities professionals.





Fluke solutions:

- ◆ Thermal imagers
- Power quality
- ▲ Process tools
- Handheld oscilloscopes
- ★ Digital multimeters
- ▲ Clamp meter
- Infrared thermometers
- ◆ Voltage detectors
- Phase rotation
- ★ Insulation tester
- ◆ Earth ground tester



Utilities.

Keeping us powerful.

Fluke solutions for utilities professionals

You know the utility industry is a demanding and often dangerous environment. As a utility professional, you need rugged, reliable, high-quality tools you can rely on every day, in every situation. You need to know your tools are providing accurate, consistent information. Fluke understands that need and provides a wide variety of test tools designed for the utility industry.

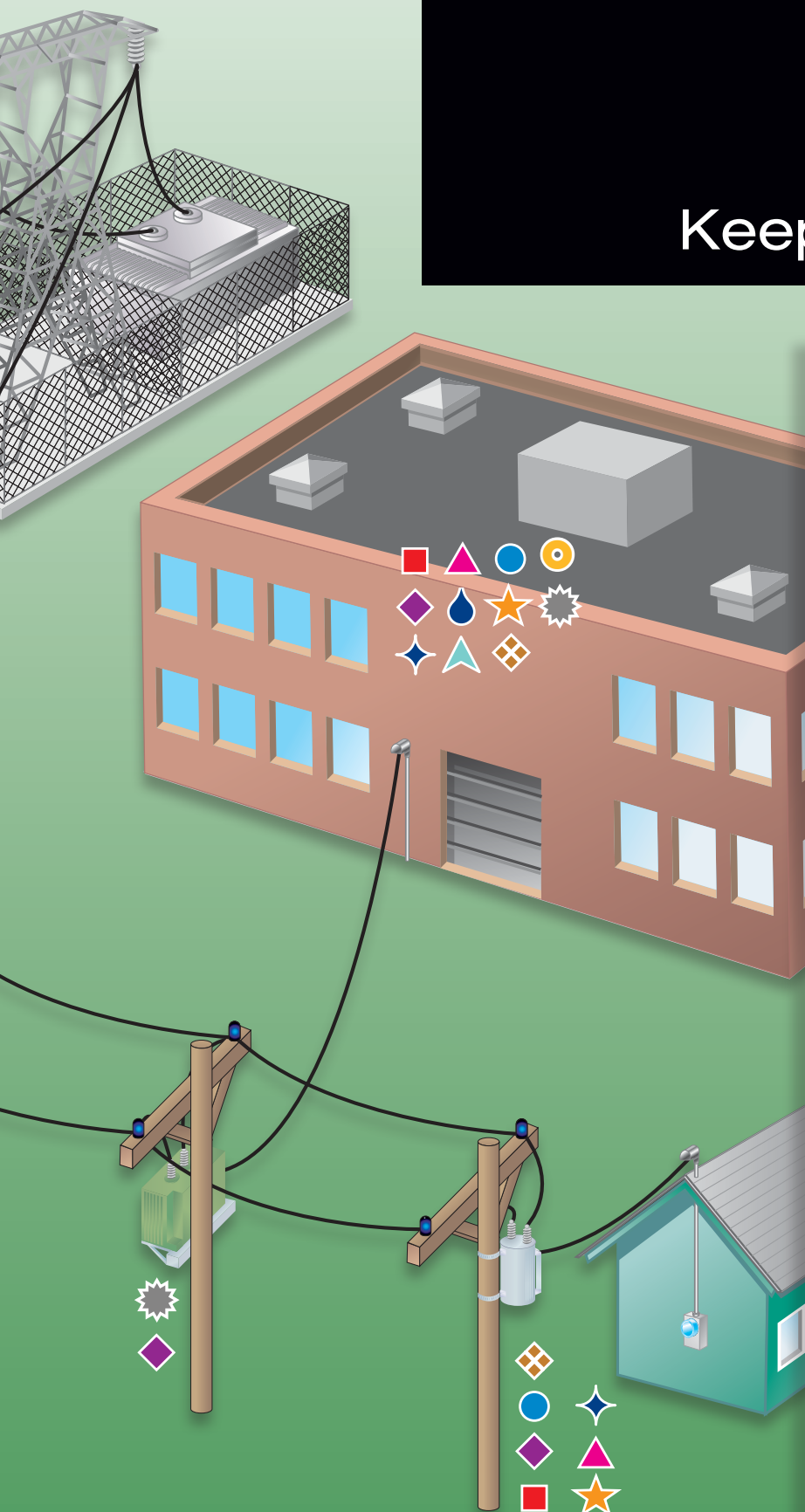
From the truck to the substation. Whether you are working in power generation, transmission, distribution, or installation, you can count on Fluke to deliver quality tools and application expertise.

Rugged and reliable. Fluke tools are built to the highest safety and reliability standards, giving you the peace of mind to know the job is done right.

Simple and easy to use. Designed with the user in mind, Fluke tools provide the features needed to perform the functions you need without all of the complications.

More information and resources. You can always count on Fluke for the troubleshooting techniques, application information, and training to keep your power distribution network up and running. Visit our web site at www.fluke.com/utility.

For technical questions or to request a demonstration, contact Fluke at utilitysupport@fluke.com or, in the U.S. and Canada call 1-866-305-4217.



Clamp meters

Fluke 355/353 True-rms 2000 A Clamp Meters



High current and a large jaw, make this clamp well suited for industrial and utility applications.

Confidently take reliable readings with the true-rms, Fluke 355/353 Clamp Meters; the tools of choice for high-current measurements up to 2000 A. The extra-wide jaw easily clamps around large conductors, typically found in high-current applications.

Accurate peak measurements can be taken using the inrush current mode, ideal for motors and inductive loads. The 355 also measures voltage, continuity and resistance, making this the most versatile tool for utilities, electrical contractors, and industrial service technicians.

- Reliably handle a wide range of high-current applications with 2000 A ac + dc true-rms, 1400 A ac, and 2000 A dc
- The large 58 mm (2.3 in) jaw capacity is suitable for large, or multiple, conductors
- Inrush current measurement captures 'power-on' surge current with accuracy and repeatability
- High voltage measurement of 1000 V ac + dc true-rms, 600 V ac, and 1000 V dc allows user to perform multiple tests with only one tool (355 only)
- Resistance to 400 K Ω and a continuity beeper provide the convenience of a multimeter. (355 only)
- Accurately measure frequency up to 1 kHz for optimum troubleshooting
- Quickly analyze readings using the min/max, and avg functions
- Use the display hold feature to capture readings even when the display cannot be viewed
- Use the low-pass filter to smooth out noisy loads and stabilize readings

Every day, thousands of workers suffer disabling injuries on the job.

To help you reduce the level of risk in your work environment, Fluke has created a safety program for electrical measurement—including a free video.

At Fluke, we're committed to helping you stay safe and compliant. So we've developed the only safety program designed to mitigate risk and promote safe electrical measurement.

Find out more and order a free safety video, just visit www.fluke.com/safety



Fluke 337 True-rms AC/DC Clamp Meter

The top-of-the-line true-rms clamp meter with an ergonomic design shaped to fit your hand and access tight spots easily. Get accurate results faster and more conveniently.

- AC/DC current
- Voltage, resistance, continuity
- Display hold button and auto shut-off
- True-rms
- Backlight
- Inrush current feature measures motor-starting current
- Frequency measurement and min/max button

Voltage testers



Fluke T+PRO Electrical Tester

The Fluke T+PRO is the ideal, full-featured tester for simple voltage readings. It has all of the advantages of a traditional solenoid tester, with added functionality, but none of the typical drawbacks. With voltage measurement, continuity, built-in flashlights, rotary field indication and the legendary ruggedness and reliability of Fluke, it is an excellent choice for checking voltage.

- Safer than traditional solenoid testers
- Three forms of ac/dc voltage detection: lights, beeper, vibration for added user protection and convenience
- Still indicates live voltage without battery power for added user protection
- Extra-heavy-duty, replaceable test leads for added durability
- Continuity beeper, GFCI trip and flashlight
- Resistance, rotary field indication and display hold



Fluke T5-1000 Electrical Tester

Fluke T5 electrical testers let you check voltage, continuity and current with one compact tool. With the T5, all you have to do is select volts, ohms, or current and the tester does the rest. Tough test leads stow neatly in the back of the tester, making it easy to tote the T5 in your tool pouch.

- Measures volts ac or volts dc with precise digital resolution
- Displays resistance to 1000 Ω
- OpenJaw™ current lets you check current up to 100 A ac—without breaking the circuit
- Continuity beeper
- Test leads accept Fluke accessory test clips
- 600 V model also available
- Detachable Slim-Reach™ probe tips are customized for national electrical standards
- Optional holster attaches to a tool belt and neatly stows test leads



Electric Utility plays it safe with Fluke T+ Electrical Tester

There's a lot at stake when electric utility field service representatives turn the electric power on or off. Their safety, and that of their customers, comes first.

To find out more, go to www.fluke.com/appnotes

Digital multimeters



Fluke 113 Utility Multimeter

The true-rms utility multimeter designed for basic electrical tests.

The new Fluke 113 Utility Multimeter has the features needed to repair most electrical problems. This meter is simple to use and has significant improvements over the original Fluke 7-600, and other utility multimeters. With features such as Fluke's VCHEK™, which includes added measurement functions, backlight, conformance to the latest safety standards, and a much larger display that's easier to view, this new meter is a must have for the utility users toolbox.

- VCHEK™ function to simultaneously test for voltage or continuity
- Low input impedance helps prevent false readings due to ghost voltage
- True-rms for accurate ac measurements on non-linear loads
- Record signal fluctuations using the min/max function
- Diode test
- Auto and manual ranging



Revenue meter socket checks using the new Fluke 113 Utility Multimeter

All utilities generally require that revenue self-contained meter sockets be checked and tested for proper wiring and no backfeed conditions. These checks happen before setting a meter in place and supplying utility power to the facility.

This is also true when reconnecting a meter after a service termination or disconnect. This application note describes the procedure for testing a meter socket with the Fluke 113 Utility Multimeter before setting or reconnecting a revenue meter to utility power.

To find out more, go to www.fluke.com/appnotes.



87 Series V Industrial True-rms Multimeter with Temperature

Accuracy and diagnostic functions for maximum industrial productivity.

The Fluke 87V has all of the measurement functions, troubleshooting features, resolution, and accuracy to solve more problems in electronics, plant automation, power distribution, and electro-mechanical equipment.

- True-rms ac voltage and current for accurate measurements on non linear signals
- Built in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument
- Large display digits and two level bright white backlight for increased visibility
- Withstands hazardous 8,000 V spikes caused by load switching and faults on industrial circuits and complies with second edition IEC and ANSI electrical safety standards

Infrared thermometers



Fluke 568 Thermometer

The two-in-one infrared and contact thermometer with an innovative graphical display.

With a straight-forward user interface and soft-key menus, quickly and simply adjust emissivity, start data logging, or turn on and off alarms, with just a few pushes of a button.

Use the Fluke 568's high distance-to-spot ratio to check pole transformers, disconnect switches, and bus connectors to check for developing problems with a tell-tale thermal symptom from a greater distance.

- Measure -40 °C to 800 °C (-40 °F to 1470 °F)
- Easily access advanced features with the soft-key buttons and graphical display
- Measure smaller objects from further away, with a distance-to-spot ratio of 50:1
- Compatible with most type K thermocouples
- Confidently measure most types of surfaces, with the adjustable emissivity feature
- Log and download up to 99 measurements for accurate reporting
- Trend and analyze your results with the included FlukeView® Forms PC software
- Audible and visual alarms instantly alert you to measurements outside of set limits



Still not sure which infrared thermometer is best suited for your applications?

Fluke has an easy-to-use temperature selection guide that can help you quickly narrow your choices based on such needs as temperature range, hazardous location, size of objects measured, need for trending software, or whether you will be measuring metallic objects. Compare detailed specifications of all of our infrared thermometers. Visit www.fluke.com/temp to use this tool and get more information.



Fluke 574 Precision Infrared Thermometer

The Fluke 574 non-contact thermometer is the ideal professional diagnostic tool for maintenance professionals requiring the most accurate temperature readings at all distances and documentation for analysis and reporting. The Fluke 574 measures surface temperatures, helping to quickly locate overloading or overheating systems, reduce work and follow-up time, and avoid costly outages. Maintenance professionals requiring analysis and documentation use the 100-point data logging and software for graphing and analysis.

- **Spot measure:** determine the absolute surface temperature of an object
- **Temperature differential:** compare two spot measurements against each other
- **Scanning:** detect changes along a wide or continuous region target

Thermal imagers



Fluke Ti25 and Ti10 Thermal Imagers

The ultimate tools for troubleshooting and maintenance.

The perfect tools to add to your problem solving arsenal. Built for tough work environments, these high-performance, fully radiometric imagers are ideal for troubleshooting a variety of electrical and utility applications.

- IR-Fusion® Technology blends visual and infrared images in different viewing modes; including picture-in-picture
- Engineered and tested to withstand a 2 m (6.5 ft) drop
- Resistant to dust and water—tested to an IP54 rating
- Delivers the clear, crisp images needed to find problems fast
- Identify even small temperature differences that could indicate problems with excellent thermal sensitivity (NETD)
- Intuitive, three-button menu is easy to use—simply navigate with the push of a thumb



Substations call for a predictive approach to maintenance because a failure can be costly for end users in terms of lost production and revenues and lead to lower revenues for the utility from lost sales due to unreliable service. Since overheating as well as abnormally cool operating temperatures may signal the degradation of an electrical component, thermal imagers provide the predictive capabilities required for substation and switchgear maintenance.

To find out more, go to www.fluke.com/appnotes



Specification	Ti10	Ti25
Detector (sensor type)	160 x 120 focal plane array, uncooled microbolometer	
Field of view	23° x 17°	23° x 17°
Minimum focus distance	0.15 m	0.15 m
Spatial resolution	2.5 mrad	2.5 mrad
Multiple lens option	No	No
Hot/cold spot	Yes	Yes
IR-Fusion®	Yes	Yes
Thermal sensitivity (NETD)	≤0.2 °C at 30 °C (200 mK)	≤0.1 °C at 30 °C (100 mK)
Temp range	-20 °C to 250 °C	-20 °C to 350 °C
Temp accuracy	± 5 °C or 5 % whichever is greater	± 2 °C or 2 % whichever is greater
# of palettes	4	6
Digital zoom	No	No
Display	3.6 inch high resolution LCD	
Annotation	No	Voice
Visible light (visual) camera	Yes	Yes
Analysis and reporting software (license free)	SmartView™	SmartView™
Articulating lens	No	No
Removable memory card	Yes	Yes
Storage medium	SD memory card (2GB), stores at least 1200 fully radiometric (.is2) IR-Fusion images or 3000 basic IR images.	



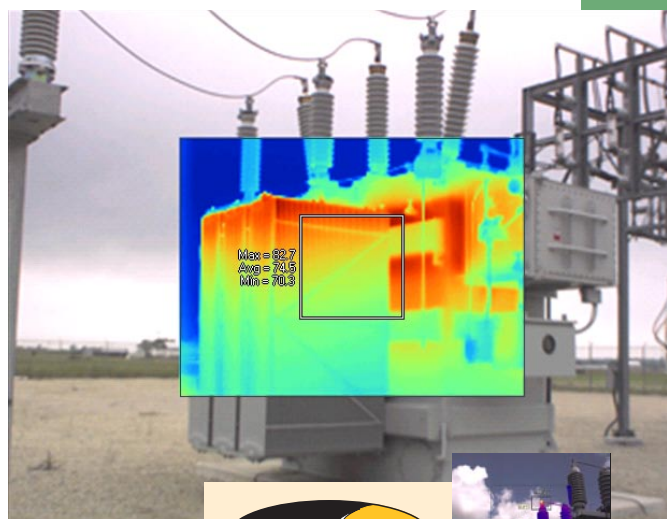
Ti40FT and Ti45FT IR FlexCam® Thermal Imagers

The Fluke Ti4xFT models feature everything needed for virtually every thermography task. With a 160 x 120 detector and a temperature sensitivity of up to 0.08 °C (NETD), they deliver high resolution images where even the smallest temperature differences can be seen. The units are extremely easy to use through the Windows® CE menu structure and offer an extended troubleshooting feature set to allow on the spot analysis in the field.

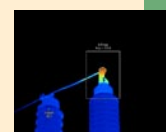


Ti50FT and Ti55FT IR FlexCam® Thermal Imagers

Choose the Fluke Ti5xFT models when you need the best images. They feature 320 x 240 detectors with industry leading thermal sensitivity (≤ 0.05 °C NETD for Ti55 models and ≤ 0.07 °C NETD for Ti50 models) for high resolution, ultra high-quality images. In addition, with a 60 Hz detector acquisition rate temperatures are displayed live on the large 5-inch color display.



IR-Fusion®



See things both ways with Fluke IR-Fusion® Technology

To communicate critical information, infrared images only are no longer enough. With revolutionary IR-Fusion® Technology, you can better identify details. Manage and analyze images by combining real world visual images with infrared images, merging them into one and allowing you to blend between two images, or create picture-in-picture combinations, as in the example above.

Visit www.fluke.com/select to choose the right thermal imager for your application.

Ti40FT	Ti45FT	Ti50FT	Ti55FT
320 x 2400 focal plane array, uncooled microbolometer			
23° x 17°	23° x 17°	23° x 17°	23° x 17°
0.15 m	0.15 m	0.15 m	0.15 m
2.60 mrad	2.60 mrad	2.60 mrad	2.60 mrad
Yes	Yes	Yes	Yes
No	Yes	No	Yes
Yes	Yes	Yes	Yes
≤ 0.09 °C at 30 °C (90 mK)	≤ 0.08 °C at 30 °C (80 mK)	≤ 0.07 °C at 30 °C (70 mK)	≤ 0.05 °C at 30 °C (50 mK)
-20 °C to 600 °C	-20 °C to 1200 °C	-20 °C to 350 °C	-20 °C to 600 °C
± 2 °C or 2 % whichever is greater			
8	8	8	8
No	2x	2x, 4x	2x, 4x, 8x
5 inch large high-res color LCD			
No	Text	No	Text
Yes	Yes	Yes	Yes
SmartView™	SmartView™	SmartView™	SmartView™
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
>1000 images on compact flash card			

Earth ground testers



Fluke 1623 and 1625 Earth Ground Testers

The most complete earth ground testers†

The Fluke 1625 Advanced GEO Earth Ground Tester and Fluke 1623 GEO Earth Ground Tester offer advanced features to make your earth ground loop resistance testing quicker and easier.

The versatile Fluke 1625 and Fluke 1623 perform all four types of earth ground measurement:

- 3- and 4-Pole Fall of Potential (using stakes)
- 4-Pole Soil Resistivity testing (using stakes)
- Selective testing (using 1 clamp and stakes)
- Stakeless testing (using 2 clamps only)

For each test, the testers inform you which stakes or clamps need to be connected. Both also have an IP56 rating, suitable for outdoor use.

In addition to all the features of the 1623, the Fluke 1625 also includes advanced features:

- Automatic frequency control (AFC)—identifies existing interference and chooses a measurement frequency to minimize its effect
- R* measurement, earthing impedance with 55 Hz—for short circuit current in power distribution systems
- Adjustable limit—for quicker testing

† For full list of features see table on page 11



What is stakeless testing?

Measure earth ground loop resistances for multi-grounded systems using only current clamps.

This test technique eliminates the dangerous, and time consuming activity of disconnecting parallel grounds, as well as the process of finding suitable locations for auxiliary ground stakes. You can also perform earth ground tests in places you have not considered before: inside buildings, on power pylons, or anywhere you don't have access to soil.

For a virtual demonstration for each of the four testing methods of the 1625 and 1623 visit www.fluke.com/utilities



EI-162BN The 320 mm Diameter Split Core Transformer for Power Pylons

Determine the earth ground resistance of power pylons without disconnecting the utility ground connection. Used in conjunction with Fluke 1625 or Fluke 1623, This selective clamp for ground loop resistance measurement is used around power pylons/ transmission towers. Inner diameter of the clamp is 320 mm (12.6 in). Includes the split core transformer, users manual and all necessary adapters/connections for the Fluke 1623 and Fluke 1625.

- External dimensions (LxWxD): 46 cm x 36 cm x 16 cm (20.5 in x 16 in x 17.2 in)
- Weight: 8 kg (17.6 lbs)



Fluke 1630 Earth Ground Clamp Meter

Measure earth ground loop resistance anywhere. Quickly and easily.

The Fluke 1630 Earth Ground Clamp is able to measure ground loop resistances using stakeless testing—eliminating the need to use earth ground stakes.

Gone are the days of spending time placing and connecting stakes for each earth ground rod on your system—a major time saver.

- Quick and easy use—no earth ground stakes are necessary
- Large, 35 mm (1.35 in) jaw opening
- Measures ground resistance from 0.025 Ω to 1500 Ω
- Measures ground leakage current from 0.2 mA to 30 mA
- High and low alarming
- Automatic self calibration
- Rugged carrying case and resistance check loop included



Choosing the right instrument

Feature	1623	1625	1630
3-pole earth measurement	•	•	
4-pole earth measurement	•	•	
Specific earth resistance (soil-resistivity according to Wenner)	•	•	
2-pole resistance measurement dc		•	
4-pole resistance measurement dc		•	
2-pole resistance measurement ac	•	•	
Selective earth measurement (1 clamp)*	•	•	
Stakeless earth measurement (2 clamps)*	•	•	•
Earth impedance for power distribution systems (55 Hz)		•	
Measuring voltage 20 V/48 V		•	
Measuring voltage ≤ 48 V	•		
Automatic frequency control (AFC) (4 Hz to 128 Hz)		•	
Measuring frequency 128 Hz	•		
Programmable limits, settings		•	•
One button measurement concept	•	•	
Protective rubber holster	•	•	

*Included in Fluke-1623 Kit and Fluke-1625 Kit, or sold separately



Earth Ground Resistance: Principles, testing methods and applications

Learn about the basics of Earth Ground measurement and testing. Answer questions such as: "Why ground? Why is testing important?" and "What is a good ground resistance value?"

Discover all of the methods available for testing and their most common applications.

Download a copy of the Earth Ground Resistance brochure, on-line at www.fluke.com/utilities

Power quality recorders



Fluke 1750 Three-Phase Power Recorder

Never miss capturing a disturbance—with the exclusive threshold-free measurement system, it's automatic.

Capture every measurement, every event, on every cycle, all the time with the Fluke 1750 Three-Phase Power Recorder. Unprecedented accuracy and resolution provide complete visibility into your distribution system.

Features

- **Premium accuracy and measurement techniques:** Guaranteed for all power quality parameters, with IEC 61000-4-30 compliant measurement systems
- **Quick and reliable configuration:** PDA wireless "front panel interface" provides a window into what the instrument is recording, even in awkward test locations
- **Threshold-free setup:** Apply thresholds after data is collected with Fluke Power Analyze Software
- **Captures everything:** Cross-channel and current triggering capture every measurement, on every channel, every time
- **Intuitive PC software:** Easily analyze data and generate reports
- **Plug and play:** Set up in minutes with self-identifying current probes and single-lead voltage connections
- **No need to reconnect wires:** Swap channels internally with the wireless PDA or PC when connections are not correct
- **Measure every parameter:** voltage and current on three phases, neutral, and ground
- **5 MHz, 8000 V pk waveform capture:** Get a detailed picture of even the shortest events
- **Quickly retrieve data:** With included SD memory card or via the 100BaseT high-speed Ethernet connection



Multi-purpose measurement tools help utilities increase service and protect revenue

Enough revenue meters are out of tolerance that a 2001 Electric Power Research Institute study estimated meter-related losses at \$5 million to \$20 million per year for a medium sized U.S. utility. Using a multi-purpose analyzer such as the Fluke 430 Series allows utility technicians to offer more customer services in less time and quickly audit revenue meters during each site visit.

Find out more about revenue meter verification and the 430 Series at www.fluke.com/utility



Fluke 1760 Three-Phase Power Quality Recorder

The power quality expert's choice for the most demanding tests.

The Fluke 1760 Three-Phase Power Quality Recorder is fully compliant to IEC 61000-4-30 Class-A, for advanced power quality analysis and consistent compliance testing. Designed for analysis of medium- and low-voltage utility power distribution systems, this power quality monitor provides the flexibility to customize thresholds, algorithms, and measurement selections.

- **Flexible, and fully configurable thresholds and scale factors:** Allows user to pinpoint specific issues by defining the detailed criteria for detection and recording of disturbances
- **10 MHz, 6000 Vpk waveform capture:** Get a detailed picture of sub-microsecond events
- **Comprehensive software included:** Provides trend diagrams for root cause analysis, statistical summaries, report writing, and real-time data monitoring in the online mode
- **Rugged field design:** Insulated housing and a solid state design with no rotating components enable reliable testing under nearly any conditions which additionally satisfies important IEC 61010-1 shock protection requirements
- **Fully Class-A compliant:** Conduct tests according to the stringent international IEC 61000-4-30 Class-A standard
- **GPS time synchronization:** Correlate data with events or datasets from other instruments, with precision
- **Uninterrupted power supply (40 minutes):** Never miss important events—even record the beginning and end of interruptions and outages, to help determine the cause



New IEC 6100-4-30 Class-A standard

The new IEC 6100-4-30 Class-A standard takes the guesswork out of selecting a power quality instrument. The standard defines the measurement methods for each power quality parameter to obtain reliable, repeatable, and comparable results. In addition, accuracy, bandwidth, and a minimum set of parameters are all clearly defined.

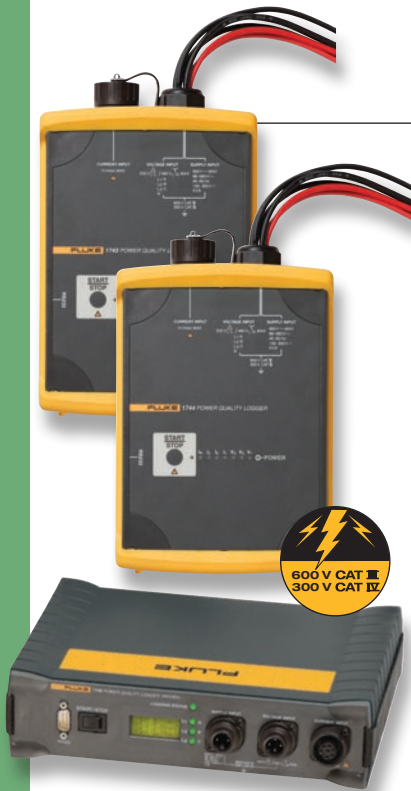
To find out more about the Class-A standards, go to www.fluke.com/utilitynotes and click on the application note, *What does Class-A mean to me?*

Power loggers and troubleshooters

Fluke 1740 Series Three-Phase Power Quality Loggers

Compact and rugged, the Fluke 1740 Series three-phase power quality loggers are everyday instruments for technicians who troubleshoot and analyze power distribution systems. Capable of simultaneously logging up to 500 parameters for up to 85 days and capturing events, the Fluke 1740 Series helps uncover intermittent and hard-to-find power quality issues.

- **Plug and play:** Setup in minutes with automatic current probe detection and powering
- **Installs inside the cabinet:** Compact, fully insulated housing and accessories fit easily in tight spaces, next to live power
- **Determines the root cause:** Included PQ Log software quickly analyzes trends, creates statistical summaries, and generates detailed graphs and tables
- **Monitors power for the long-term:** Data can be downloaded during recording without interruption
- **Measure voltage with premium accuracy:** IEC 61000-4-30 Class-A compliant voltage accuracy (0.1 %)
- **Quickly validate quality of power:** Assess power quality according to EN50160 power quality standard, with statistical overview



Power quality recording and analysis: Techniques and applications

Hooking up a power quality recorder and taking days' worth of data can give you a rich picture of your power. In this article we'll talk about the various recording techniques available in power loggers and recorders—understanding the tools and techniques you have available will be key to your strategy. What should you be looking for? And when does recording make sense?

Read this article on-line at www.fluke.com/utilitynotes

View graphs and generate reports with Fluke PQ Log software





Fluke 1735 Power Logger

NEC compliant load studies, energy consumption testing, and general power quality logging.

The Fluke 1735 Power Logger is the ideal electrician's tool for conducting load studies according to National Electric Code 220.87. Set the 1735 up in seconds with the included flexible current probes and color display.

- Record loading according to NEC 30-day load study requirement
- Monitor demand at 15 minute or user-defined averaging periods
- Prove the benefit of efficiency improvements with energy consumption tests
- Measure harmonic distortion caused by electronic loads
- Improve reliability by capturing voltage dips and swells from load switching
- Easily confirm instrument setup with color display of waveforms and trends
- Measure all three phases and neutral with included four flexible current probes
- View graphs and generate reports with included Power Log software



Fluke 430 Series Three-Phase Power Quality Analyzers

Pinpoint problems quickly on-screen with these easy-to-use troubleshooters.

The Fluke 435 and 434 Three-Phase Power Quality Analyzers are frontline troubleshooters that help you locate and troubleshoot power quality problems. They enable the user to pinpoint problems quickly by viewing and analyzing data on-screen.

- **Troubleshoot real-time:** Analyze the trends using the cursors and zoom tools—even while background recording continues
- **View graphs and generate reports:** With included analysis software
- **Quickly check revenue meters:** Using simple pulse count energy mode
- **Logger function:** Configure for any test condition with memory for over 400 parameters at user defined intervals (435 only)
- **Autotrend:** Every measurement you see is always automatically recorded, without any setup
- **System-Monitor:** Up to ten power quality parameters on one dashboard
- **Automatic transient mode:** Captures 200 kHz waveform data on all phases simultaneously—up to 6 kV



Power quality handhelds



Fluke 43B Power Quality Multimeter

Field proven performance makes it a "must have" for every tool box.

The Fluke 43B Power Quality Multimeter performs the measurements you need to maintain power systems, troubleshoot power problems, and diagnose equipment failures.

- Combines the most useful capabilities of a power quality analyzer, multimeter, and scope
- 20 measurement memories to save/recall screens and data with cursor readings
- Monitoring functions help track intermittent problems and power system performance
- Records two selectable parameters for up to 16 days
- Complete package with voltage probes and 40 A/400 A current clamp, FlukeView® Software, and optically isolated interface cable



Fluke 345 Power Quality Clamp Meter

Easily monitor and troubleshoot high current applications.

The power quality clamp meter combines the functionality of a current clamp, power quality meter, oscilloscope, and data logger in a single handheld instrument.

The range of measurements offered is suitable for:

- Measuring and logging power, voltage, and current parameters
- Installing and testing of dc power systems
- Analysis of voltage and current harmonics

Features

- Clamp-on measurement of ac current up to 1400 A rms and dc current up to 2000 A without breaking the circuit
- Troubleshoot on screen with graphical display of waveforms, harmonics, and recorded data
- Measures V, A, Hz, CF, THD, DF, W, VA, VAR, kWh, and power factor even on distorted waveforms
- View graphs and generate reports with included Power Log software



Fluke VR1710 Voltage Quality Recorder

The Fluke VR1710 is a single-phase, plug-in voltage quality recorder that offers an extremely easy-to-use solution for detecting and recording power quality problems, allowing for immediate action and less downtime.

- Easily pinpoint the root cause of voltage problems
- Plug directly into the mains power socket and capture data
- Continuous recording of all values with no gaps
- Take the guesswork out of diagnosing voltage quality problems
- Min, max, average rms values (1/4 cycle) with time stamp
- Actual transient display with time stamp
- Flicker according to EN 61000-4-15, individual harmonic and THD values with trends

ScopeMeter® test tools



Fluke ScopeMeter® 125

The compact Fluke ScopeMeter 125 is a rugged solution for industrial troubleshooting and installation applications. It's a truly integrated test tool, with oscilloscope, multimeter and "paperless" recorder in one affordable, easy-to-use instrument. Find fast answers to problems in machinery, instrumentation, control and power systems.

- Dual-input 40 MHz 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
- Measure harmonics and power, VA, VAR, W, PF
- Up to seven hours battery operation
- Optically-isolated interface for PC connection



Measuring power with a Fluke ScopeMeter® 190 Series

Although many electrical test tools are available to measure voltage, few can measure current, and even fewer are equipped to measure electrical power directly. Moreover, there is always the question of how to measure power in electronic systems that are not operating at mains frequencies. The Fluke ScopeMeter 190 Series has the answer.

To find out more, go to www.fluke.com/appnotes

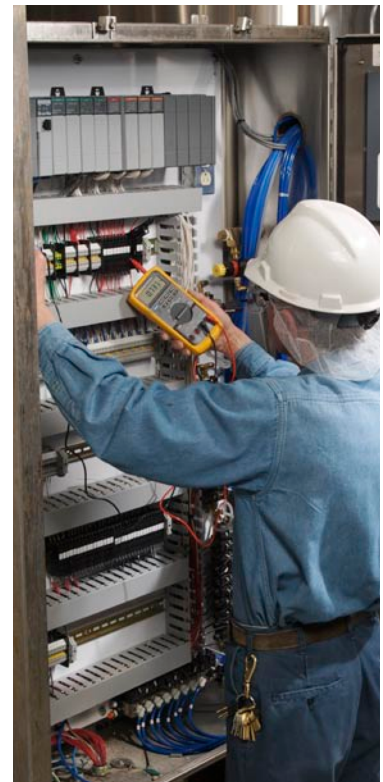
Process tools

Fluke 789 and 787 ProcessMeters™

Double your power. Fluke 787 and 789 ProcessMeters™ combine a DMM and a Loop Calibrator in one rugged, handheld tool.

The Fluke 789 has a large display that's twice as large as the 787 and is easy to read. The built-in, selectable 250 ohm HART resistor in the 789 eliminates the need to carry a separate resistor with you.

- Fully functional DMM that meets 1000 Volt EN61010-1 CAT III standards and 600 Volt EN61010-1 CAT IV standards (789 only for CAT IV)
- Simultaneous mA and % of scale readout on mA output
- 25 % Manual Step plus auto step and auto ramp on mA output
- 24 V loop power supply (789 only)
- 20 mA drive into 1200 ohm (500 ohm 787)
- 0 % to 100 % mA Span Check buttons to toggle from 4 mA to 20 mA (789 only)
- Infrared I/O serial port compatible with FlukeView® Software



Fluke 726 Precision Multifunction Process Calibrator

More calibration power!

The Fluke 726 measures and sources almost all process parameters and can calibrate almost anything. The Fluke 726 will also interpret results without the help of a calculator and store measurement data for later analysis.

- More precise measurement and calibration source performance, accuracies of 0.01 %
- Transmitter error% calculation, interpret calibration results without a calculator
- Memory storage for up to eight calibration results, return stored calibration data from the field for later analysis
- Frequency totalizer and frequency pulse train source mode for enhanced flowmeter testing
- HART mode inserts 250 ohm resistor in mA measure and source for compatibility with HART instrumentation
- Integrated pressure switch test allows you to capture the set, reset, and deadband of a switch



Comprehensive maintenance keeps electricity flowing

Pacific Gas and Electric Company (PG&E), incorporated in California in 1905, is one of the largest combination natural gas and electric utilities in the United States. In order to provide optimum service while limiting downtime, PG&E maintains a comprehensive preventive and predictive maintenance program.

Find out how PG&E partnered with Fluke and Fluke products to update their insulation testing accuracy and functionality, as well as promote safer work practices—go to www.fluke.com/utilitynotes

Insulation resistance

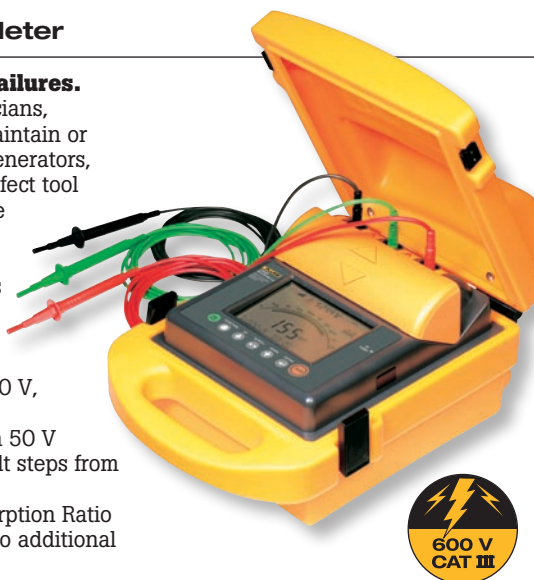


Fluke 1550B 5 kV MegOhmMeter

Easily identify potential equipment failures.

The Fluke 1550B is ideal for utility electricians, technicians and engineers who install, maintain or repair transformers, cables, switchgear, generators, and motors. The Fluke 1550B is also a perfect tool for preventative or predictive maintenance programs designed to identify potential equipment failures before they occur. The 1550B is capable of applying test voltages of up to 5000 V dc, which allows the measurement of resistance values up to one teraohm.

- Standard voltages of 250 V, 500 V, 1000 V, 2500 V, 5000 V
- Programmable test voltages available in 50 V steps from 250 V to 1000 V and 100 volt steps from 1000 V to 5000 V
- Automatic calculation of Dielectric Absorption Ratio (DAR) and Polarization Index (PI) with no additional setup
- Improved ramp function (0 V dc to 5000 V dc) for breakdown testing
- Warning voltage function alerts the user that voltage is present and gives the voltage reading up to 600 V ac or dc
- Measurements can now be stored in up to 99 memory locations
- Includes improved FlukeView® Forms Basic Software and USB optical interface cable for easier downloading to a Windows® PC



Fluke 1587 Insulation Multimeter

Two powerful tools in one

The Fluke 1587 Insulation Multimeter combines a digital insulation tester with a full-featured, true-rms digital multimeter in a single, compact, handheld unit.

- Insulation test 0.01 MΩ to 2 GΩ
- Insulation test voltages for many applications: 50 V, 100 V, 250 V, 500 V, 1000 V
- Live circuit detection prevents insulation test if voltage > 30 V is detected for added user protection
- Auto discharge of capacitive voltage
- AC/DC voltage, dc milliVolts, ac/dc milliamps, resistance (Ω), continuity
- Capacitance, diode test, temperature, min/max, frequency (Hz)