

# Insulation resistance testing.

A complete solution—for every person.



# Insulation resistance. The latest test tools from the testing experts.

You asked Fluke for a full family of insulation resistance testers. Now they're finally here.

Time and again, electrical workers tell us about the importance of testing insulation resistance. Insulation resistance tools are critical to a preventative maintenance program, and a staple for troubleshooting any number of residential, industrial and commercial applications.

Now Fluke has **a tool for every budget and need**, from compact handhelds to a portable high-voltage 5 kV model. We even offer a full-featured insulation tester with multimeter functions built right in—it's two products in one!

Every tester in the line is built to Fluke standards—in other words, beyond your expectations. These tools are all **rugged, reliable, accurate and easy to use,** for lower ownership costs over the long haul...less calibration costs, less repair and replacement costs and longer product lifetime.

Each Fluke tester also provides you access to "how-to" application notes, selected case studies and expert technical support—FREE.

For more about testing insulation, along with complete details on the growing family of Fluke insulation resistance testers, just visit **www.fluke.com/insulationtest.** 

"You asked. We responded.

Now you have more insulation

testing choices than ever."







## A digital insulation tester and full-featured multimeter two tools in one!

### Fluke 1587/1577 Insulation Multimeters

Fluke customers told us they wanted an insulation tester and a full-featured multimeter in one, compact product and now we've delivered two!

Both offer the "two tools in one" feature set, combining a digital insulation tester with a full-featured, true RMS digital multimeter in a single, compact, handheld unit. The result: maximum versatility for both troubleshooting and preventative maintenance.

Whether you work on motors, generators, cables or switch gear, Fluke insulation multimeters deliver impressive capability in a single unit. No longer do you need to go back to the truck, shop, or tool crib to get the extra tool you need to get the job done. They are rugged, reliable and easy to use, just what you would expect from Fluke. It all adds up to a breakthrough solution that saves you time and money.







#### **Key Features**

- Insulation test
  1587: 0.01 MΩ to 2 GΩ
  1577: 0.1 MΩ to 600 MΩ
- Insulation test voltages
  1587: 50 V, 100 V, 250 V, 500 V, 1000 V
  1577: 500 V, 1000 V
- Auto-discharge of capacitive voltage
- Measure ac/dc voltage, dc millivolts, ac/dc milliamps, resistance, and continuity
- Fluke 1587 includes capacitance, diode test, temperature, min/max, and frequency
- Low-pass filter for variable-speed motor drive measurements (1587 only)

Recommended for: Fluke 1587: industrial plant maintenance, industrial and utilities electricians, field service contractors and commercial HVAC/R technicians Fluke 1577: electrical contractors and commercial electricians



## Insulation resistance testing in the palm of your hand

### Fluke 1507/1503 Insulation Resistance Testers

With their multiple test voltages, the compact Fluke 1507 and 1503 Insulation Testers are ideal for many troubleshooting, commissioning, and preventative maintenance applications. Additional features, like the remote probe on these tools, reduces the time needed to perform repetitive testing.

The Fluke 1507 is the best compact, lightweight, handheld insulation tester for advanced industrial and electrical insulation testing. Its full feature set offers the ability to easily and quickly perform advanced insulation resistance testing. Its handy size makes it easy to pack and use. And its reasonable price makes it an excellent value.

For basic electrical insulation testing, choose the compact Fluke 1503—a rugged, compact tool that handles the most common tests at a most affordable price.

Recommended for: Fluke 1507: electrical contractors, industrial and commercial electricians Fluke 1503: residential and commercial electricians







#### **Key Features**

Insulation test range
 1507: 0.01 MΩ to 10 GΩ
 1503: 0.1 MΩ to 2000 MΩ

- Insulation test voltages
  1507: 50 V, 100 V, 250 V, 500 V, 1000 V
  1503: 500 V, 1000 V
- Save both time and money with automatic calculation of Polarization Index and Dielectric Absorption Ratio
- Make repetitive tests simple and easy with the Compare (Pass/Fail) function (1507 only)
- Repetitive or hard-to-reach testing is easy with the remote test probe
- $\bullet$  Live circuit detection prevents insulation test if voltage > 30 V is detected for added user protection
- Auto-discharge of capacitive voltage for added user protection
- AC/DC voltage: 0.1 V to 600 V
- 200 mA Continuity
- Resistance: 0.01  $\Omega$  to 20.00 K  $\Omega$
- Remote probe, test leads, probes and alligator clips included with each tester
- 1-year warranty





# Insulation testing you can depend on

### Fluke 1520 MegOhmMeter

A proven workhorse, the 1520 can make up to 5,000 insulation resistance tests, more than any other Fluke insulation tester, without changing batteries. A dual analog/digital display makes it easy to use. A Lo-Ohms function measures voltage and checks connections. Thanks to superb accuracy, endurance and handheld size, the 1520 is a long-standing tool of choice for demanding plant and utilities work.





- Large, backlit LCD with analog bar graph and digital display
- $\bullet$  Three output voltages for insulation resistance testing: 250 V, 500 V, 1000 V
- Insulation resistance testing up to  $4000 \text{ M}\Omega$ ; switches automatically to voltage measurement when voltage is greater than 30 V ac or 30 V dc.
- AC/DC voltage measurement up to 600 V
- Lo-Ohms function for testing connections
- · Last reading memory display
- 4 C-cell batteries for up to 5,000 tests per EN61557-2, with battery-life indicator and auto shut-off
- · Auto-discharge of capacitive voltage charges
- Rugged, splash-proof case with impact-absorbing holster

Recommended for: Fluke 1520: industrial and utilities electricians



#### Fluke 1550B MegOhmMeter

For high-voltage, industrial-strength insulation testing, reach for the portable Fluke 1550B. No one makes a more portable 5 kV digital tool for troubleshooting, preventative maintenance and advanced applications in high voltage environments.

Perfect for testing high-energy switchgear, motors, generators and cables, the 1550B executes everything from simple spot checks to timed tests and breakdown evaluations. It even stores test results and downloads them to your PC via infrared port. The custom carrying case also houses heavy-duty leads, probes and alligator clips for a complete, rugged field-testing kit.



#### **Key Features**

- Standard test voltages of 250 V, 500 V, 1000 V, 2500 V, 5000 V for a wide range of equipment testing
- · Measures resistances up to one teraohm
- Programmable test voltages available in 50 volt steps from 250 to 1000 volts and 100 volt steps from 1000 to 5000 volts
- Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no additional setup
- Easy set-ups save time and effort when conducting "timed" and "ramp" tests of insulation breakdown
- Improved ramp function (0 to 5000 V dc) for breakdown testing
- · Autodischarge of capacitive voltage
- Runs off of high-capacity rechargeable batteries for more testing between recharge
- 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, with easy recall
- Includes improved FlukeView<sup>\*</sup> Forms Software and Optical Interface cable for easier downloading to a Windows<sup>\*</sup> PC
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- Large digital/analog LCD shows detailed measurement data
- 2-year warranty

Recommended for: Fluke 1550B: industrial and utilities electricians

# **Choose the best fit**

|  | TWO IN ONE TOOLS        1587      1577 |                               | 1503                          | 1507                                 | 1520                               | 1550B                                      |
|--|--|-------------------------------|-------------------------------|--------------------------------------|------------------------------------|--|
| Test Voltages  | 50 V, 100 V, 250 V,<br>500 V, 1000 V   | 500 V, 1000 V                 | 500 V, 1000 V                 | 50 V, 100 V, 250 V,<br>500 V, 1000 V | 250 V, 500 V,<br>1000V             | 250 V, 500 V,<br>1000 V, 2500 V,<br>5000 V |
| IRT Range  | 0.01 MΩ -<br>2 GΩ                      | 0.1 ΜΩ -<br>600 ΜΩ            | 0.1 MΩ -<br>2000 MΩ           | 0.01 MΩ -<br>10 GΩ                   | 4 MΩ -<br>4 GΩ                     | 200 ΚΩ -<br>1 ΤΩ                           |
| PI/DAR   |  |                               |                               | •                                    |                                    | •  |
| Auto Discharge   | •                                      | •                             | •                             | •                                    | •                                  | •  |
| w Timed Ramp Test<br>(Breakdown)   |  |                               |                               |                                      |                                    | •  |
| Timed Ramp Test<br>(Breakdown)<br>Pass/Fail<br>Comparison<br>Est. # of IRT Tests |  |                               |                               | •                                    |                                    |  |
|  | 1000                                   | 1000                          | 2000                          | 2000                                 | 5000                               |  |
| Voltage > 30 V<br>Warning<br>Memory  | •                                      | •                             | •                             | •                                    | •                                  | •  |
| Memory   |  |                               |                               |                                      | (last reading only)                | (99 locations)                             |
| Remote Test Probe  | •                                      | •                             | •                             | •                                    |                                    |  |
| Lo Ohms  |  |                               |                               |                                      | •                                  |  |
| Display  | Digital LCD                            | Digital LCD                   | Digital LCD                   | Digital LCD                          | Digital LCD/<br>Analog Bar Graph   | Digital LCD/<br>Analog Bar Graph           |
| Continuity   | •                                      | •                             | (200 mA)                      | (200 mA)                             | •                                  |  |
| AC/DC Volts  | •                                      | •                             | •                             | •                                    | •                                  |  |
| Current  | •                                      | •                             |                               |                                      |                                    |  |
| Resistance   | •                                      | •                             | •                             | •                                    | •                                  |  |
| Resistance<br>Temperature<br>(contact)   | •                                      |                               |                               |                                      |                                    |  |
| Lo-Pass Filter<br>Capacitance<br>Diode Test                                      | •                                      |                               |                               |                                      |                                    |  |
| 0<br>Capacitance   | •                                      |                               |                               |                                      |                                    | •  |
| Diode Test   | •                                      |                               |                               |                                      |                                    |  |
| Frequency  | •                                      |                               |                               |                                      |                                    |  |
| MIN/MAX  | •                                      |                               |                               |                                      |                                    |  |
| Hold/Lock  | •                                      | •                             | •                             | •                                    | ٠                                  | •  |
| Backlight  | •                                      | •                             | •                             | •                                    | •                                  |  |
| Software   |  |                               |                               |                                      |                                    | (Fluke View®<br>Forms Basic)               |
| Warranty   | 3 years                                | 3 years                       | 1 year                        | 1 year                               | 3 years                            | 2 years                                    |
| Battery  | 4 AA (NEDA 15A<br>or IEC LR6)          | 4 AA (NEDA 15A<br>or IEC LR6) | 4 AA (NEDA 15A<br>or IEC LR6) | 4 AA (NEDA 15A<br>or IEC LR6)        | 4 C-cell (NEDA 14A<br>or IEC LR14) | Rechargable                                |

FLUKE ®

# **Fluke Combo Kits**

Fluke has created two new combo kits to help maximize your productivity and help you solve problems faster and reduce downtime, all with significant savings over buying each product individually.

The products in each kit have been specifically selected for both troubleshooting and preventative maintenance applications.

Establishing preventative maintenance programs are becoming critical to maintaining the uptime of electrical equipment and can significantly reduce both planned and unplanned downtime. Unplanned downtime costs are

difficult to calculate, but often significant. For some industries, it can represent 1% to 3% of revenue (potentially 30% to 40% of profits) annually.





#### Fluke 1587 ET Advanced Electrical Troubleshooting Kit

Everything you need to troubleshoot electrical system problems quickly and easily in one case! Includes:

- With the Fluke 1587, perform insulation tests, plus a wide-range of DMM tasks with confidence and ease
- Use the i400 with your Fluke 1587 to accurately measure AC current without breaking the circuit
- Check for hot spots and measure temperature with the Fluke 62 mini non-contact thermometer



#### Fluke 1587 MDT Advanced Motor and Drive Troubleshooting Kit

Everything you need to troubleshoot motor and variable frequency drive electrical problems quickly and easily in one case!

Includes:

- With the Fluke 1587, perform insulation tests, plus a wide-range of DMM tasks with confidence and ease
- Use the i400 with your Fluke 1587 to accurately measure AC current without breaking the circuit
- Check the rotation of threephase motors easily and safely with the Fluke 9040

# Every need—and every budget:

Learn about the entire range of Fluke insulation resistance testers. See your Fluke sales representative or visit www.fluke.com/insulationtest

Fluke. Keeping your world up and running.

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