

## FLOODWATER SAFETY WITH FLUKE TOOLS

# **Engage in Flood-recovery Activities** with Fluke Tools

The devastation and human toll brought on by flooding can be enormous. As families and factory owners begin to clean up the homes and factories after a flood, there may be hidden electrical hazards. This is not a project that you should undertake without the help of a qualified person.

During a flood, the water has been contaminated with many different kinds of substances like soil, chemicals, oil, debris, etc. Electrical equipment, wiring and the integrity of electrical insulations would have reduced performance due to the contamination. This will present a dangerous situation if electrical equipment and wiring is re-energized without proper reconditioning or replacement by qualified persons.

Personnel involved in flood-recovery activities also face exposure to hazardous materials, airborne particles, and eye/head/face hazards. From the start of recovery period, the need for personal protective equipment (PPE) is essential. Following best practice guidelines can potentially reduce exposures to flood-related and electrical hazards\*.

The following are the products that Fluke recommends to help you in the restoration of your homes and factories.



#### FLUKE-TI400 9HZ - checking for any moist area

Fluke TI400 Thermal Imager is the perfect tool to add to your problem solving arsenal. Built for tough work environments, this high-performance, fully radiometric infrared camera is ideal for troubleshooting electrical installations, electro-mechanical equipment, process equipment, HVAC/R equipment and others. Fluke TI400 Detect and communicate issues faster with patented Fluke IR-Fusion® technology with AutoBlend™ mode.

Simply scroll through the different viewing modes quickly to better identify trouble areas in Full IR thermal, picture-in-picture, or automatic blend visual and thermal images. Ruggedized high resolution 640x480 capacitive touch screen for quick menu navigation. Capture additional digital images to show location or additional site details with IR-PhotoNotes™ Annotation System and Voice recording gets additional details saved with the image file

Fluke TI400 delivers the clear, crisp images needed to find problems fast. It identifies even small temperature differences that could indicate problems with excellent thermal sensitivity (NETD).

The Fluke TI400 is optimized for field use in harsh work environments. It also withstands dust and water—tested to an IP54 rating.



#### FLUKE 435 II

The 435 Series II Power Quality and Energy Analyzers offer the best in power quality analysis and introduce, for the first time ever, the ability to help locate, predict, prevent, and troubleshoot power quality problems in three-phase and single-phase power distribution systems.

Additionally, the Fluke-patented energy loss algorithm, Unified Power Measurement, measures and quantifies energy losses due to harmonics and unbalance issues, allowing the user to pinpoint the origin of energy waste within a system.

Fully Class-A compliant: 435 Series II analyzers conduct tests according to the stringent international IEC 61000-4-30 Class-A standard. Logger function allows configuration for any test condition with memory for up to 600 parameters at user defined intervals.

It comes with power quality analysis software that allows users to view graphs and generate reports.



#### **FLUKE 1587**

The Fluke 1587 Insulation Multimeters combine a digital insulation tester with a full-featured, true RMS digital multimeter in a single, compact, handheld unit, which provides maximum versatility for both troubleshooting and preventative maintenance.

Whether you work on motors, generators, cables, or switch gear, the Fluke 1587 Insulation Multimeters are ideally suited to help you with your tasks and at a cost that is far less than buying the two products.

It comes with Live circuit detection protection by preventing insulation test if voltage > 30 V is detected for added user protection.



**FLUKE 1653B** 

The Fluke 1653B Installation Tester verifies the safety of electrical installations in domestic, commercial and industrial applications. It can ensure that fixed wiring is safe and correctly installed to meet the requirements of IEC 60364, HD 384 and all relevant local standards. Fluke 1653B is a great tool to check the integrity of the electrical distribution system within the facilities, with or without rewiring.

Fluke 1653B allows two measurements to be made at once and by having a dual display allows faster testing to be done. PEFC/PSC and loop impedance are measured and displayed in parallel, saves you more than 50% of test time compared to other loop testers. It is also supplied with the SureGrip™ test leads and clips which gives the user a comfortable, reliable grip while keeping you safe.

The tester is rugged & lightweight and is able to withstand a drop of 1 meter. 1653B is compact, lightweight and padded neck-strap to free your hands for all day testing.

#### FLUKE 179

Fluke-179 is the benchmark for general purpose multimeter. It sets the standard with a combination of precision, features, ease-of-use, safety and reliability. The Fluke-179 has the features needed to find most electrical and HVAC problems. All inputs are protected to measurement CAT III 1000V and CAT IV 600V. This meter can withstand transient impulses in excess of 8000 V to help protect you from arc blasts resulting from surges and spikes.





#### **FLUKE 289**

Fluke-289 is a high performance industrial logging multimeter designed to solve complex problems in electronics, plant automation, power distribution, and electro-mechanical equipment. With the ability to log data and review it graphically on-screen, you can solve problems faster and help minimize downtime. Let the Fluke-289 be your watchdog for systems or processes while you are off solving other problems.

The additional feature of Low Pass Filter allows accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment.

The advanced Lo-Z function which is a low impedance voltage function of Fluke-289 prevents false readings due to "ghost voltage". This allows the differentiation of real dangerous voltage that may come in the form of leakage caused by water ingress from that caused by "ghost voltage". This is also the recommended mode when testing for absence of presence of live power. Fluke-289 is a clear advantage in this kind of situation.





#### FLUKE-324/ESPR

True-rms measurements and optimized ergonomics make the 320 Series Clamp Meters the best general troubleshooting tools for commercial and residential electricians. The 324 is designed to verify the presence of load current, AC voltage and continuity of circuits, switches, fuses and contacts. These small and rugged clamp meters are ideally suited for current measurements up to 400 Å in tight cable compartments. The Fluke 324 model also includes temperature and capacitance measurement capabilities.



#### FLUKE-381

The Fluke 381 Clamp Meter offers improved performance perfect for a wide range of current measurement situations. This clamp meter is a fully featured model for electrical and industrial professionals who need to conduct advanced troubleshooting of ac and dc systems in any environment. With true-rms voltage and current measurements, the Fluke 381 can read up to 1000 V and 1000 Å in both ac and dc modes.

True-rms measurement capability more accurately measures the actual current, even with distorted waveforms caused by noise loads. The integrated low pass filter and state of the art signal processing allows for use in noisy electrical environments while providing stable readings and then lets you remove the display for even more flexibility.

Now one technician can do jobs that used to require two people. Clamp the Fluke 381 around a conductor, remove the display and walk across the room to operate controls or remove protective equipment, all while watching real-time readings.

The iFlex flexible current probe (included) expands the measurement range to 2500 A ac while providing increased display flexibility, ability to measure awkward sized conductors and improved wire access.

Safety Conformance: IEC/EN 61010-1:2001, 1000V CAT III, 600V CAT IV





### FLUKE-2042 - locate your cable easily

Fluke-2042 is a professional general purpose cable locator. It is ideal for tracing cables in walls and underground, locating fuses/breakers on final circuits and locating interruptions and short-circuits in cables and electrical floor heating systems. It can also be used for tracing metallic water and heating pipes. The unit is supplied as a complete kit comprising of a transmitter and receiver in a purpose-made carry case. The receiver also incorporates a torch function for working in dimly lit locations.

Fluke-2042 is suitable for all applications (live or dead cables) without the need for additional instruments. The proven digitally coded sender signal from the transmitter guarantees clear signal identification by the receiver during tracing of cables.







### FLUKE-1AC-A1-II – detects electrical power without you touching it

The next generation VoltAlert<sup>™</sup> AC non-contact voltage testers from Fluke are easy to use — just touch the tip to a terminal strip, outlet, or supply cord. When the tip glows red and the unit beeps, you know there's voltage present. Electricians, maintenance, service, safety personnel, and homeowners can quickly test for energized circuits in the workplace or at home. Fluke 1AC II fits in a shirt pocket for convenience.

#### FLUKE BT521

The Fluke 500 Series Battery Analyzer is ideal test tool for maintenance, troubleshooting and performance testing of individual stationary batteries and battery banks used in critical battery back-up applications. The intuitive user interface, compact design and rugged construction ensure optimum performance, test results and reliability. Fluke 500 Series Battery Analyzers cover a broad range of battery test functions ranging from DC voltage and resistance tests to full condition testing using an automated string function testing and the test probe integrated infra-red temperature measurement system. 500 Series Battery Analyzers are designed for measurements on stationary batteries of all types.

With an intuitive user interface, a compact design, and rugged construction the Fluke Battery Analyzers are designed to provide optimum performance, test results and reliability. Reduced testing complexity, a simplified workflow and an intuitive user interface provide a new level of ease-of-use in battery testing.





#### FLUKE 190 SERIES II ISOLATED CHANNEL SCOPEMETERS

As the first two and four-channel portable scopes safety rated CAT III 1000V / CAT IV 600V, the Fluke ScopeMeter® 190 Series II combines an unprecedented level of performance, ruggedness, and portability. You can also choose from 60MHz, 100MHz, 200MHz or 500MHz bandwidth models, with real-time sampling rates up to 5 GS/s and 200 ps resolution to capture noise and other disturbances. All models feature deep memory—up to 10,000 samples per channel— so you can examine very small parts of the waveform in detail. And all models are IP-51 rated to withstand dust, drips, humidity, and wide temperature variations. Fluke ScopeMeter test tools are hand-held battery operated, designed to meet the demands of field service professionals. Fluke 190-204 is the 4 isolated channels portable scopes designs specially for 3 phase systems troubleshooting. With the logging capabilities, it allows using to effective sniff out intermittent signal issues and noise in the systems.





#### FLUKE 773 mA CLAMP

Save time by NOT breaking the loop on 4-20 mA signal measurements. Are you spending time:

- Taking mA measurements by removing a wire and breaking the loop
- Calling the control room to isolate a loop
- Testing analog input/output on a console
- Troubleshooting devices with mA inputs and outputs
- Repairing intermittent or erratic 4-20 mA loops
- Going back to the shop to get extra tools

If you need more time in your busy day take a good look at the Fluke 773 mA Clamp Meters. It's designed to save you time, and money, by eliminating time wasting activities. Now you can troubleshoot and repair 4–20 mA loops without breaking the loop or bringing down the system.

Fluke 773 mA Clamp measures 4 to 20 mA signals with in-circuit measurement without stopping the production and breaking the connect to take measurements. You can simultaneous perform mA in-circuit measurement with 24V loop power for powering and testing transmitters. It also allows you to source 4 to 20 mA signals for testing control system I/O or I/Ps

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

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