Introduction

The G2 Phoenix Series is a hand-held, battery powered digital multimeter with clamp-on current measuring capability, backlight and work area light.

**Features include**
- 3 1/2 digit, count 4000 count LCD display
- Auto-ranging measurement with manual ranging capability
- MIN/MAX (Peak Hold) (all ranges except frequency)
- Frequency/Duty Cycle/Data Hold
- Auto power off
- Dual display
- Built-in test lead storage
- EasyVue Backlight display & Worklight (DL379 & DL389)
- Detachable current probe with optional current hook adapter for tight spaces (DL379 & DL389)
- Temperature (DL379 & DL389)
- Magnetic mount (DL379 & DL389)
- TRMS Measurement (DL389 only)

**Safety Notes**

Before using this meter, read all safety information carefully. In this manual the word “WARNING” is used to indicate conditions or actions that may pose physical hazards to the user. The word “CAUTION” is used to indicate conditions or actions that may damage this instrument.

- **Do not attempt to measure any voltage that exceeds the category based rating of this meter**
- **Do not attempt to use this meter if either the meter or the test leads have been damaged. Turn instrument in for repair at a qualified repair facility**
- **Insure meter leads are fully seated by making a quick continuity check of the leads prior to making voltage measurements**
- **Keep your fingers away from the test leads metal probe contacts when making measurements. Always grip the leads behind the fingers guarded molded into the probes**
- **Do not open the meter to replace batteries while the probes are connected**

**WARNING!**

Exceeding the specified limits of this meter is dangerous and can expose the user to serious or possibly fatal injury.

- **Voltages above 60 Volts DC or 25 Volts AC may constitute a serious shock hazard**
- **Always turn off power to a circuit (or assembly) under test before cutting, uninsulating, or breaking the current path**
- Even small amounts of current can be dangerous
- **Always disconnect the live test lead before disconnecting the common test lead from a circuit**
- **In the event of electrical shock, ALWAYS bring the victim to the emergency room for evaluation, regardless of the victim’s apparent recovery. Electrical shock can cause an unstable heart rhythm that may need medical attention**
- **If any of the following indications occur during testing, turn off the power source to the circuit under test:**
  - Arcing
  - Flame
  - Smoke
  - Extreme heat
  - Smell of burning materials
  - Discoloration or melting of components

**WARNING!**

Higher voltages and currents require greater awareness of physical safety hazards. Before connecting the test leads, turn off the power to the circuit under test; set the meter to the desired function and range, connect the test leads to the meter first, then connect to the circuit under test. Reapply power if an erroneous reading is observed. Disconnect power immediately and recheck all settings and connections.

This meter is designed for trade professionals who are familiar with the hazards of their trade. Observe all recommended safety procedures that include proper lock-out utilization and the use of personal protective equipment, including safety glasses, gloves, and flame resistant clothing.

<table>
<thead>
<tr>
<th>Equipment is safe for connection and disconnection to live conductors</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternating Current</td>
<td>Warning or Caution</td>
</tr>
<tr>
<td>DC Direct Current</td>
<td>Double Insulation (Class II)</td>
</tr>
<tr>
<td>Filter AC or DC</td>
<td>Free</td>
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</tbody>
</table>

**Controls and Indicators**

1. Clamp: Measure inductive AC current. Open to 1.25" (32 mm).
2. Wire Separation Tab/NCV Sensor: Used to isolate an individual wire from a bundle for testing. NCV sensor detects live voltage.
3. Conductor Alignment Marks: Used to aid in the visual alignment of a conductor when measuring inductive amperage. Greatest accuracy is achieved when the conductor inside the clamp is centered at the intersection of these marks.
4. Test Lead Holder: Used for hands-free use of one of the test probes.
5. Hand Guard: Used as a point of reference for the operators safety.

**WARNING!**

Always keep your hands and fingers behind the hand guards when measuring current on exposed conductors. Contact may result in serious injury.

6. Clamp Lever: Opens and closes current clamp jaw. **NOTE:** The clamp uses a high tension spring to close the jaw. Do not allow fingers or objects to become pinched in the jaw as jaw closes.
7. NCV Button: Activates non-contact voltage function
8. Range Button: Used to select range for upper and lower display.
9. HOLD/Backlight Button: Freezes display or activates display backlight and work area light. (Backlight and work area light only available on DL379/DL389)
10. MIN/MAX Button: Activates MIN/MAX capture function, cycles through minimum value, maximum value. Press longer than two seconds to return to live reading.
11. Rotary Function Switch: Turns meter on and is used to select the function desired.
12. Upper Display: Used to display current when used with UEI clamp or hook adapter. Displays output from other accessories when connected to the UEI meter.
13. Lower Display: Used to display input to test lead jacks. Includes AC/DC Volts, Frequency, Resistance, Diode, Capacitance and AC/DC microamps (μA).
14. Select Button: Used to choose measurement made from selections with multiple options such as AC or DC volts, AC or DC μA, Resistance, Diode, Capacitance or Continuity. Temperature in °F or °C.

**Displays and Indicators**

<table>
<thead>
<tr>
<th>40.000</th>
<th>39.999</th>
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<tbody>
<tr>
<td>40.000</td>
<td>39.996</td>
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</table>

- AC indicator
- DC indicator
- Indicates a negative value (DC Negative Voltage)

**Max**

Maximum value displayed

**Min**

Minimum value displayed

**A (top display)**

Display is in Amps from UEI Clamp or Hook adapter

**ABP (top display)**

Displays value from adapter

- Low battery symbol
- HOLD: Hold function activated
- →: Diode function
- ‡: Continuously
- mF / μF: Capacitance (microfarads or microfarads)
- μA: Microamps (1 μA = 0.000001 Amp)
- Hz: Frequency measurement
- mv: Duty Cycle measurement
- mV: Millivolts (1 mV = 0.001 Volt)
- APO: Auto power off mode active
- AT: Auto range function active
- OIL: Displayed if the input value exceeds selected range
Operating Instructions

Auto power off
After powering off, the meter will turn back on if you perform one of the following; change the range, move the position of the selector or any other button is pressed. NOTE: AO is disabled while in MIN/MAX mode.

Backlight/Work area light (DL379/DL389 only)
Press the "HOLD" button longer than two seconds to activate the backlight/work area light. The lights automatically turn off after 2 minutes to extend battery life. NOTE: After activating backlight, press briefly to activate hold.

Auto / Manual Range
In auto range the meter will select the best range for the measured value, and "AT" is displayed. Press the "RANGE" button to cycle through available ranges. "AT" will not be on the display when locked in a specific range. Press and hold "RANGE" button to return to auto range.

MIN/MAX mode
When using the MIN/MAX capture mode for Amps, it is recommended that you first select the range of the expected maximum value. If this is not done it will lock in the lowest range possible for the initial measurement. If the maximum value exceeds this range the meter will capture “OL” as the maximum value.

Manual ranging will also provide a faster response to the input.

Data Hold
Press the "HOLD" button to activate. This will freeze the reading and range in the display for your review.

Measuring AC Amps
- Select any function to power the upper display.
- Press "MAX/MIN" to activate Max capture, Min capture, or normal display.

NOTE: Max capture is useful for motor inrush current.

Temperature Adjustment
Slide temperature switch down prior to connecting probe.
Press "SELECT" to change scale from °F to °C display.

WARNING: Disconnect test leads from any voltage source and the meter before plugging in thermostat.

Measuring Temperature (DL379/DL389 only)

Measuring AC or DC Volts
- Press "RANGE" to select range prior to MAX/MIN.

Measuring NCV
Press "SELECT" to change the reading from AC to DC.

Measuring Frequency or Duty Cycle
Meter must be in AC Volts or ACµ mode first then press "Hz/Duty" to change function to Frequency or Duty Cycle.

NOTE: Frequency greater than 60Hz will display "ERROR Hz".

Attaching/Detaching Clamp Head
To detach clamp head first unplug all leads and probes. Firmly grab clamp head and pull apart. When attaching a clamp head or attachment, slip heads and push together ensuring the leads lock securely.

NOTE: Leaving clamp head or attachment plugged in will drain battery.

Measuring Resistance and Capacitance
NOTE: Capacitance - Leave the meter connected to the capacitor for 10 seconds or more for the reading to stabilize.

Measuring Continuity and Diode
Press "SELECT" to move from Continuity mode to Diode mode.
NOTE: Diode - "OL" in reverse mode and approximate forward voltage drop when connected in forward mode.

Continuity - Sounds the tone at approximately 50 Ω or less.

Specifications
1. AC Amps Measurement - Low input (45Hz to 400Hz)

2. DC Low Amps Measurement (test lead input)

3. AC Low Amps Measurement (test lead input, 45Hz to 400Hz)

4. DC Volts Measurement

5. AC Volts Measurement (45Hz to 400Hz)

6. Ohms Measurement

7. Diode Test

8. Capacitance Measurement

9. Temperature Measurement (DL379 & DL389 only)

10. Frequency Measurement

11. Duty (%) Cycle Measurement

12. Continuity Measurement

13. General Specifications

Limited Warranty
The DL369/DL379/DL389 is warranted to be free from defects in material and workmanship for a period of three years from the date of purchase if within the warranty period your instrument should become defective due to materials or workmanship, the unit will be repaired or replaced at U.E.I.'s option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance. Batteries and consequential damage resulting from failed batteries are not covered by warranty.

Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. U.E.I. shall not be liable for loss of use of the instrument or any other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss. A purchase receipt or other proof of original purchase date will be required before warranty repair will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge. Return the unit postage paid and insured to:

1-800-547-5740 • FAX: (503) 643-6322
Service: (800) 308-7709
www.uieit.com • Email info@uieit.com

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

G2 PHOENIX