

Di-LOG
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Operating Instructions for True RMS 1000A AC/DC CAT III 1500V DC Clamp Meter



Instruction Manual
for DL6415BT (v1.1)

**Please read this manual before switching the meter on.
Important safety information included.**

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i. Certificate of conformity

As the manufacturer of the instrument listed below, we declare under our sole responsibility that the product:

Di-LOG DL6415BT

To which this declaration relates is in conformity with the relevant clauses of the following standards:

LVD & EMC

EN 61326

EN 61010-1

EN 61010-02-030

EN 61010-02-033

EN 61010-02-031

The instrument has been factory-calibrated during its manufacturing process, ensuring it fully conforms to our rigorous quality assurance procedures. This guarantees exceptional accuracy and reliability for all your measurement needs.

The safety and performance of this instrument is assured when operated within the specifications in this instruction manual.

The product identified above conforms to the requirements of the UK and EU directives for electrical Equipment (Safety) Regulations 2016 (Low Voltage Directive 2014/35/EU) and the Electromagnetic Compatibility Regulations 2016 (EMC Directive 2014/30/EU).

ii. Introduction

Thank you for choosing the **Di-LOG DL6415BT**. This professional True RMS clamp meter is designed for electricians, engineers and Solar PV installers, providing accurate and reliable AC/DC electrical measurements and diagnostics. Please read this manual carefully before use to ensure safe operation and accurate results.

The DL6415BT can be used for the following measurements:

- AC TRMS voltage
- DC voltage and AC+DC TRMS voltage
- AC TRMS Current
- DC Current
- Power Factor/Displace Power Factor
- Active, reactive, apparent power and power factor on single-phase
- Active, reactive, apparent energy on single-phase systems
- AC voltage harmonics (1-25) and THD% up to 75Hz (1-8 above 75Hz)
- AC current harmonics (1-25) and THD% up to 75Hz (1-8 above 75Hz)
- DC power
- LowZ (ghost Voltage)
- Resistance and continuity test with buzzer
- Diode and Capacitance
- Frequency and Duty Cycle
- Temperature with K-type Probe
- Electric motor starting currents (Inrush)
- Memory Function
- Menu Function

1. Safety

1-1. International Safety Symbols

	This symbol adjacent to another symbol, terminal or operating device indicates that the operator must refer to an explanation in the operating instructions to avoid personal injury or damage to the meter.
	This symbol adjacent to one or more terminals identifies them as being associated with ranges that may, in normal use, be subjected to particularly hazardous voltages. For maximum safety, the meter and its test leads should not be handled when these terminals are energized.
	Double insulation

1-2. Safety Notes

- Do not exceed the maximum allowable input range of any function.
- Do not apply voltage to meter when resistance function is selected.
- Set the function switch OFF Position when the meter is not in use.

WARNINGS

- Set function switch to the appropriate position before measuring.
- When measuring volts do not switch to current/resistance modes.
- When changing ranges using the selector switch, always disconnect the test leads from the circuit under test.
- Do not exceed the maximum rated input limits.

CAUTIONS

- Improper use of this meter can cause damage, electric shock, injury or death. Read and understand this user manual before operating the meter.
- Always remove the test leads before replacing the battery.
- Inspect the test leads and the meter for damage before use. Repair or replace any damaged parts before operating the meter.
- Take extreme care when measuring voltages greater than 25 V AC RMS or 35 V DC. These voltages are considered a shock hazard.
- Remove the battery before storing the meter for an extended period.
- Always discharge capacitors and remove power from the device under test before performing Diode, Resistance or Continuity tests.
- Voltage checks on electrical outlets can be difficult and misleading because of the uncertainty of connection to the recessed electrical contacts; other means should be used to ensure that the terminals are not "live".
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

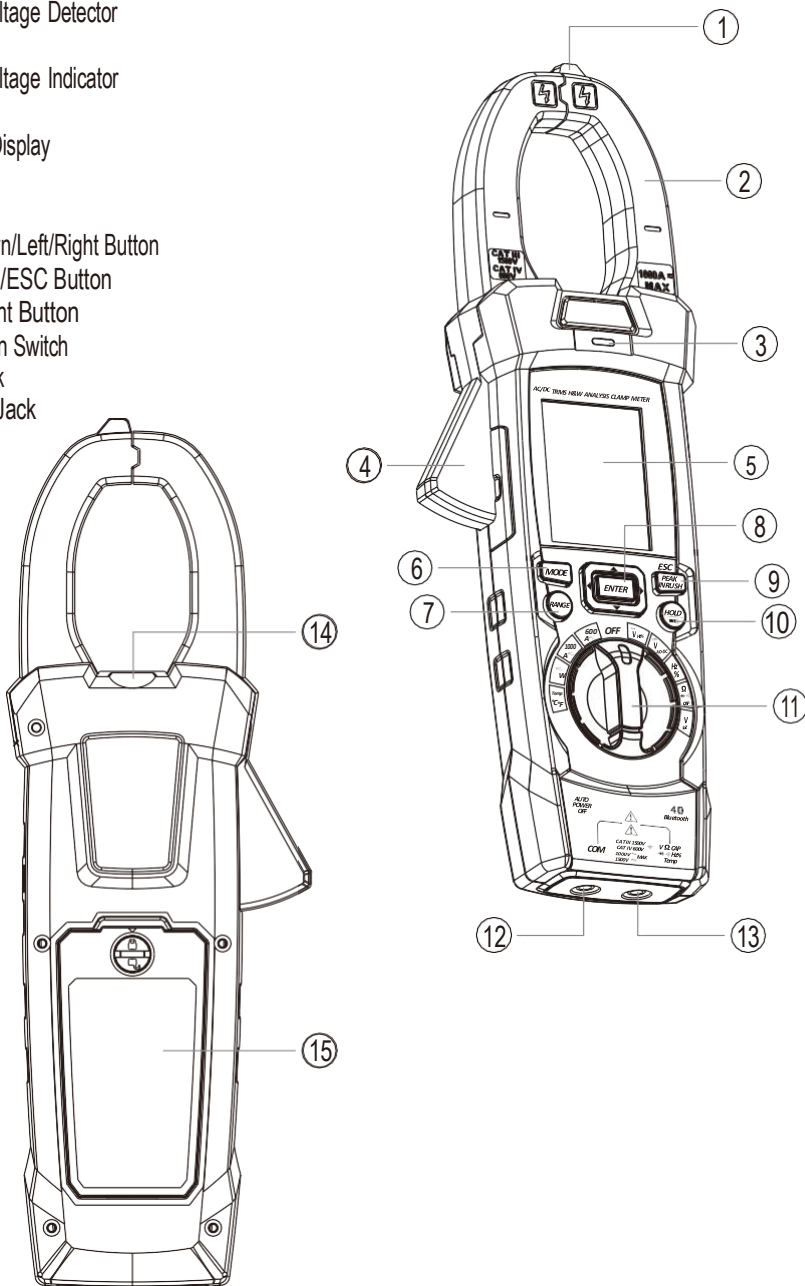
1-3. Input Limits

Function	Maximum Input
Voltage DC/AC	1500V DC/1000V AC RMS
Current DC/AC	1000A DC/AC RMS
Resistance, Capacitance, Continuity, Diode Test, Frequency, Temperature	1000V DC/AC RMS
Power	1000V DC/AC RMS

2. Description

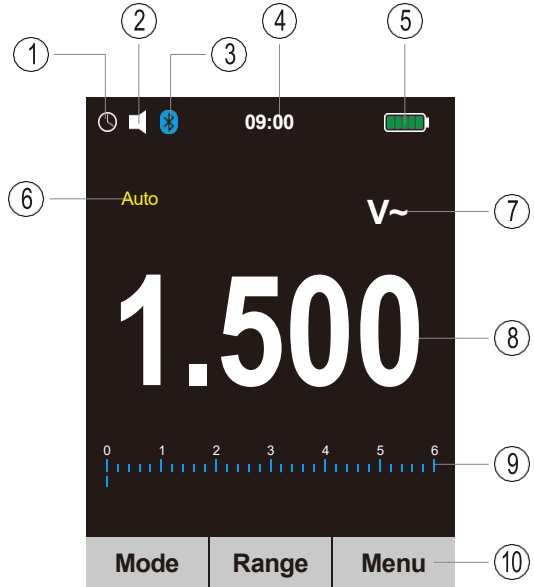
2-1. Meter Description

1. Non-Contact Voltage Detector
2. Current Clamp
3. Non-Contact Voltage Indicator
4. Clamp Trigger
5. Colour Screen Display
6. MODE Button
7. RANGE Button
8. ENTER/Up/Down/Left/Right Button
9. PEAK/INRUSH/ESC Button
10. HOLD/Flashlight Button
11. Rotary Function Switch
12. COM Input Jack
13. Positive Input Jack
14. Flashlight
15. Battery Cover



2-2. Display Icons Description

- 1- Auto Power Off
- 2- Key Beeper
- 3-Bluetooth
- 4- System's Time
- 5- Battery Capacity
- 6- Automatic/Manual Mode
- 7-Measuring Unit
- 8- Measuring Result
- 9- Analogue Bar Graph
- 10- Indications Associated with Directional Keys



3. Function

3-1. MODE Button

- Press the **MODE** Button to select AC or DC measurement in the **600A**, **1000AAC/DC** and **WAC/DC** Position.
- Press the **MODE** Button to select AC Voltage, Frequency or Duty Cycle measurement in the **VAC/Hz%** Position.
- Press the **MODE** Button to select DC Voltage or AC+DC Voltage measurement in the **VDC/AC+DC** Position
- Press the **MODE** Button to select Frequency or Duty Cycle measurement on the **Hz%** Position.
- Press the **MODE** Button to select Ohms, Diode Test, Continuity or Capacitance measurement in the Ω $\rightarrow$ $\rightarrow$ CAP Position.
- Press the **MODE** Button to select °C or °F measurement in the **Temp** Position.

3-2. Range Selection

When the meter is first turned on, it automatically goes into Auto Ranging, this automatically selects the best range for the measurements being made and is generally the best mode for most measurements.

For measurement situations requiring that a range be manually selected, perform the following:

1. Press the **RANGE** Button, the “Auto” display indicator will turn off.
2. Press the **RANGE** Button to step through the available ranges until you select the range you want.
3. Press and hold the **RANGE** Button for 2 seconds to exit the Manual Ranging mode and return to Auto Ranging.

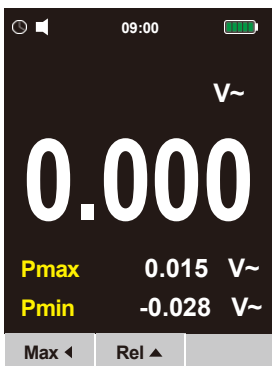
3-3. Data Hold and Flashlight Function

- Press the **HOLD/Flashlight** Button to turn On or Off the Data Hold function.
- Press the **HOLD/Flashlight** Button for >2 seconds to turn On or Off the Flashlight function.

3-4. Peak Hold Function

Note: Only ACV functions can do the peak value measurement.

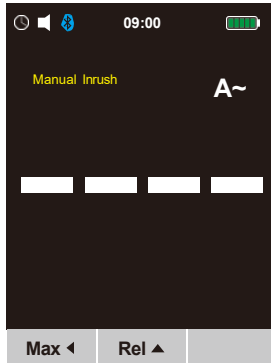
1. The **PEAK** Button is the peak value measurement key that acts with trigger.
2. In ACV functions, press the **PEAK/INRUSH/ESC** Button to activate the detection of Maximum and Minimum peak values on AC Voltage with a response time of 10ms, both values are constantly updated and are displayed cyclically every time the same key is pressed again.
3. The display shows the symbol associated with the selected function: “**Pmax**” for maximum peak value; “**Pmin**” for minimum peak value.
4. Press the **PEAK/INRUSH/ESC** Button again it goes back to a normal measuring mode.



3-5. Inrush Function

Note: Only ACA functions can do the Inrush value measurement.

1. Close motor and then install Jaw.
2. Press the **PEAK/INRUSH/ESC** Button, the “----” will appear in the display.
3. Open motor and then read the value on the display.
4. Press the **PEAK/INRUSH/ESC** Button again it goes back to a normal measuring mode.



3-6. Adjust the Backlight Brightness

Press the **PEAK/INRUSH/ESC** Button for >2 second to adjust the backlight brightness.

3-7. Other Button (ENTER, Up, Down, Left and Right)

- Press the **ENTER** Button to enter the settings interface.
- Use the **Up, Down, Left** and **Right** direction Buttons to select the corresponding measurement function to the direction arrow on the color screen.

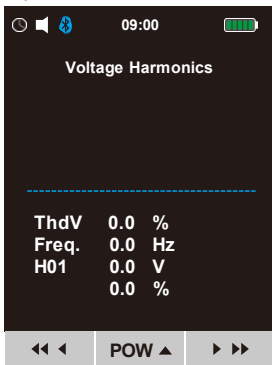
3-8. Auto Power Off

Users can customize the auto-shutdown time (OFF/15/30/45/60 minutes) via the settings interface.

4. Individual Harmonic Measurement Function

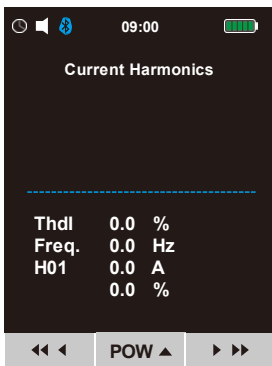
4-1. Voltage Measurement Mode

1. Press the **Right** Button to enter Harmonic Measurement, press the **Up** Button again to go back.
2. Press the **Left** or **Right** Button to select symbol "H01 to H25".



4-2. Current Measurement Mode

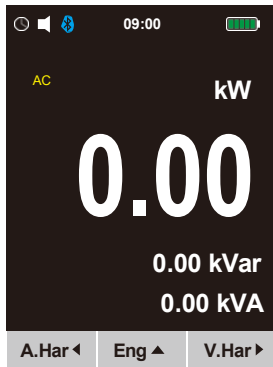
1. Press the **Right** Button to enter Harmonic Measurement, press the **Up** Button again to go back.
2. Press the **Left** or **Right** Button to select symbol "H01 to H25".



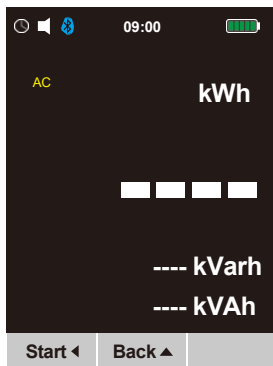
4-3. Power Measurement Mode

The AC power test interface is displayed by default, showing active power, reactive power, and visual power.

1. Press the **MODE** Button access to power factors and displacement power factor measurement.



2. Press the **MODE** Button to enter the DC Power test interface, which measures DC Power, DC Current, DC Voltage.
3. Press the **Up** Button to enter the Power Test, press the **Left** Button to start the Clock, press the **Up** Button returns to the Previous Menu, press the **Right** Button stops the Power Test, press the **Left** Button saves the test results again, press the **Up** Button returns to the Previous Menu.



4-4. Main menu

- Press the **ENTER** Button to enter the selection interface.
- Press the **ENTER** Button into selection menu, press the **ENTER** Button to enter the Installation Settings interface, press the **ENTER**, **Up** or **Down** Button can set the Key Sound, Automatic Shutdown Time, Time Display Format and Bluetooth On.

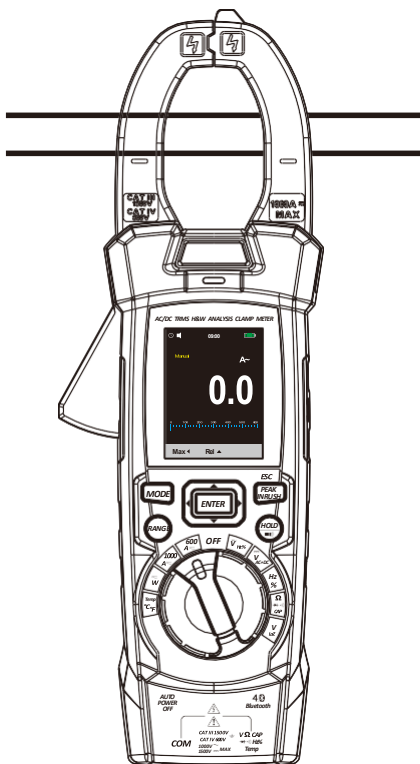


5. Operation

5-1. AC/DC Current Measurement

⚠ WARNING: Ensure that the test leads are disconnected from the meter before making current clamp measurements.

1. Set the Function switch to the **600A** or **1000A AC/DC** range, if the range of the measured is not known, select the higher range first then move to the lower range if necessary.
2. Press the **MODE** Button to select AC or DC current, the “~” or “—” symbol will be shown on the LCD display.
3. Press the trigger to open jaw, fully enclose one conductor to be measured.
4. The clamp meter LCD will display the reading.



Incorrect



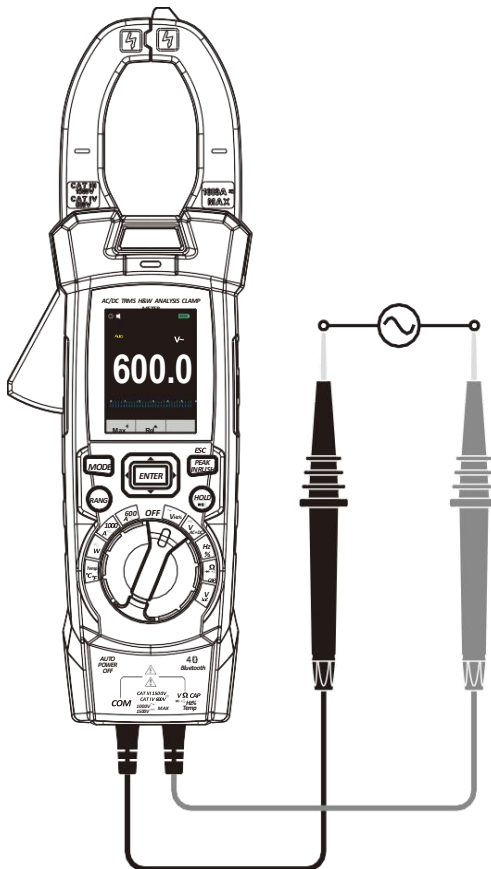
Correct

5-2. AC Voltage (Frequency, Duty Cycle) Measurement

⚠ WARNING: Observe all safety precautions when working on live voltages.

⚠ CAUTION: Do not measure AC voltages if a motor on the circuit is being switched ON or OFF, large voltage surges may occur that can damage the meter.

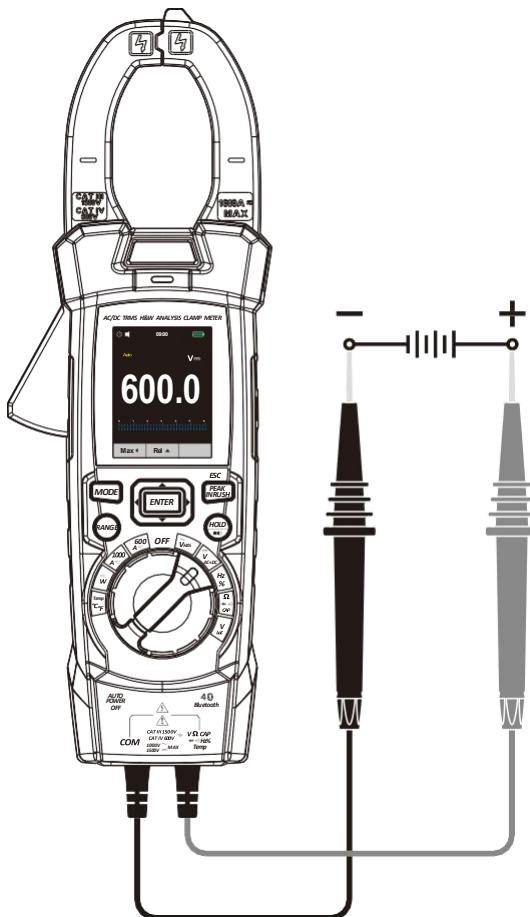
1. Set the function switch to the **VAC/Hz%** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Connect the test leads in parallel to the circuit under test.
4. Read the Voltage in the display.
5. Press the **MODE** Button to indicate “Hz” and “%”, read the Frequency and % of Duty Cycle in the display.



5-3. DC (AC+DC) Voltage Measurement

⚠ WARNING: Observe all safety precautions when working on live voltages.

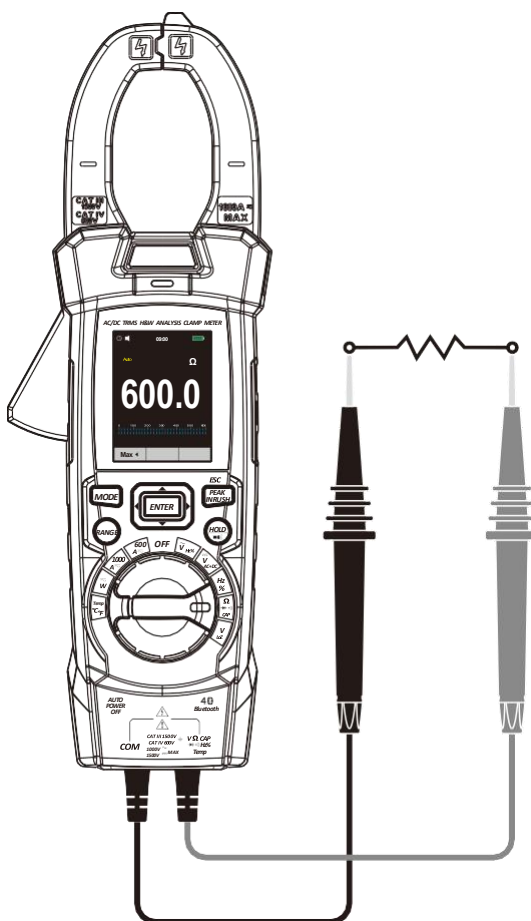
1. Set the function switch to the **VDC/AC+DC** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Connect the test leads in parallel to the circuit under test, touch the red test probe to the positive side of the circuit and the black test probe to the negative side of the circuit.
4. Read the Voltage in the display.
5. Press the **MODE** Button to indicate " $V_{\approx}$ ", read the AC+DC Voltage in the display.



5-4. Resistance Measurement

⚠ WARNING: Never test resistance on a live circuit.

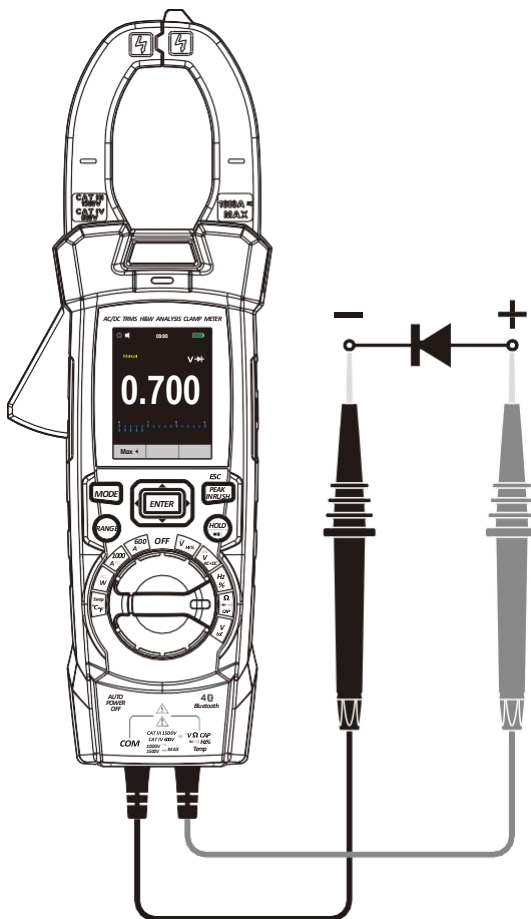
1. Set the function switch to the Ω $\rightarrow$ CAP Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press the **MODE** Button until the “ Ω ” symbol appears on the LCD display.
4. Touch the test lead probes to the component under test, if the component is installed in a circuit, it is best to disconnect one side before testing to eliminate interference with other devices.
5. Read the Resistance on the LCD display.



5-5. Diode Test

⚠ WARNING: Never test diodes in a live circuit.

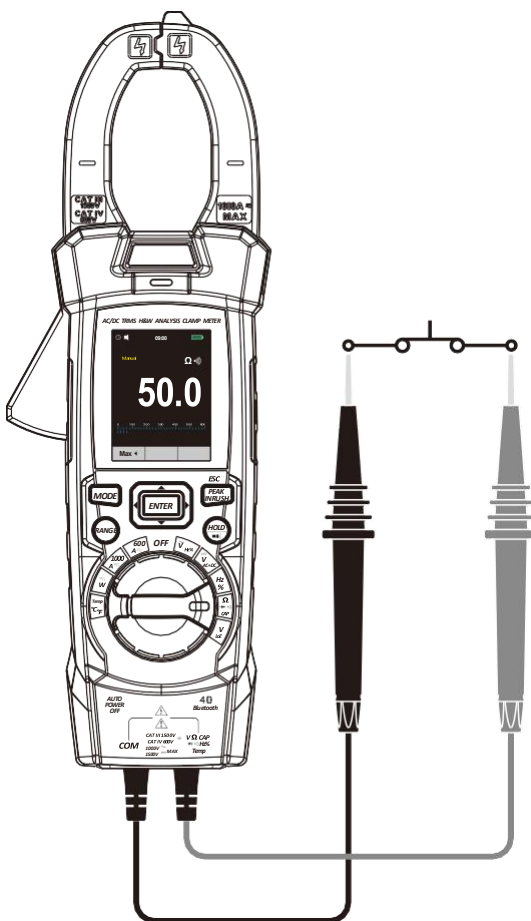
1. Set the function switch to the $\Omega \rightarrow \rightarrow$ CAP Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press the **MODE** Button until the “V $\rightarrow$ ” symbol appears on the LCD display.
4. Touch the test lead probes to the diode under test.
5. Forward voltage will indicate 0.4 to 0.7 on the LCD display; Reverse voltage will indicate “OL”; Shorted devices will indicate near 0 and an open device will indicate “OL” in both polarities.



5-6. Continuity Test

⚠ WARNING: Never test diodes in a live circuit.

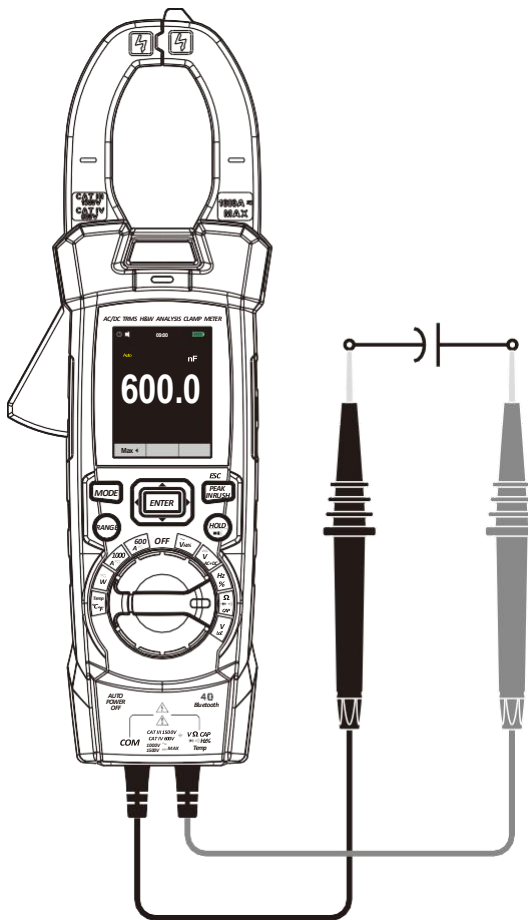
1. Set the function switch to the Ω $\rightarrow$ CAP Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press the **MODE** Button until the “ Ω $\rightarrow$ CAP” symbol appears on the LCD display.
4. Touch the test lead probes to the device or wire under test.
5. A beeper will sound if the resistance is approx. 50 ohms or less and the resistance reading will be shown on the LCD display.



5-7. Capacitance Measurement

⚠ WARNING: To avoid electric shock, disconnect power from the unit under test and discharge all capacitors before measuring capacitance. Remove batteries and disconnect all power leads before testing.

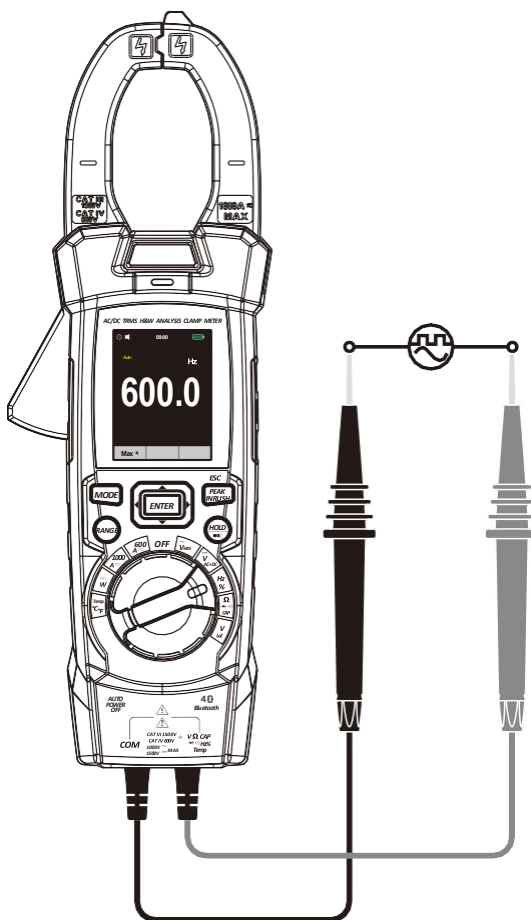
1. Set the function switch to the $\Omega \rightarrow \text{CAP}$ Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press the **MODE** Button until the “nF” symbol appears on the LCD display.
4. Touch the test leads to the capacitor to be tested.
5. Read the Capacitance value on the display.



5-8. Frequency/Duty Cycle Measurement (Electronic)

⚠ WARNING: Observe all safety precautions when working on live voltages.

1. Set the function switch to the **Hz%** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Touch the test probe tips to the circuit under test, read the Frequency on the display.
4. Press the **MODE** Button again to indicate “%” on the display, read the % of Duty Cycle on the display.

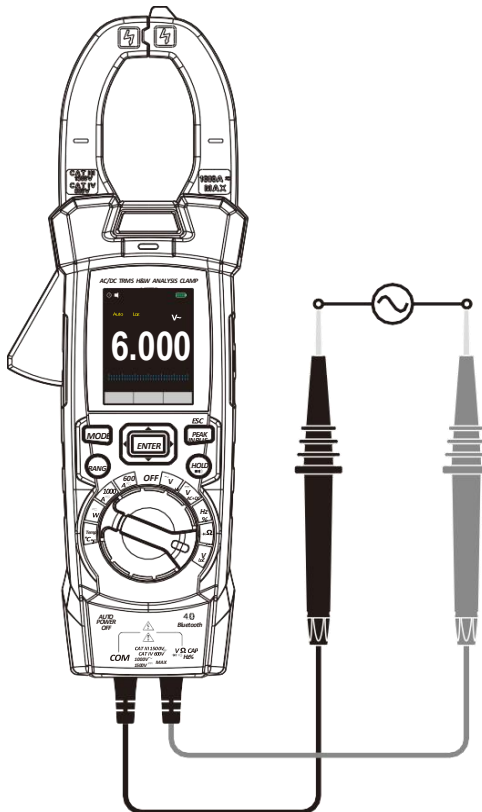


5-9. Low Z Voltage Measurement

⚠ WARNING: Observe all safety precautions when working on live voltages. Do not connect the meter to circuits exceeding 600 V AC/DC when it is set to the Low Z position.

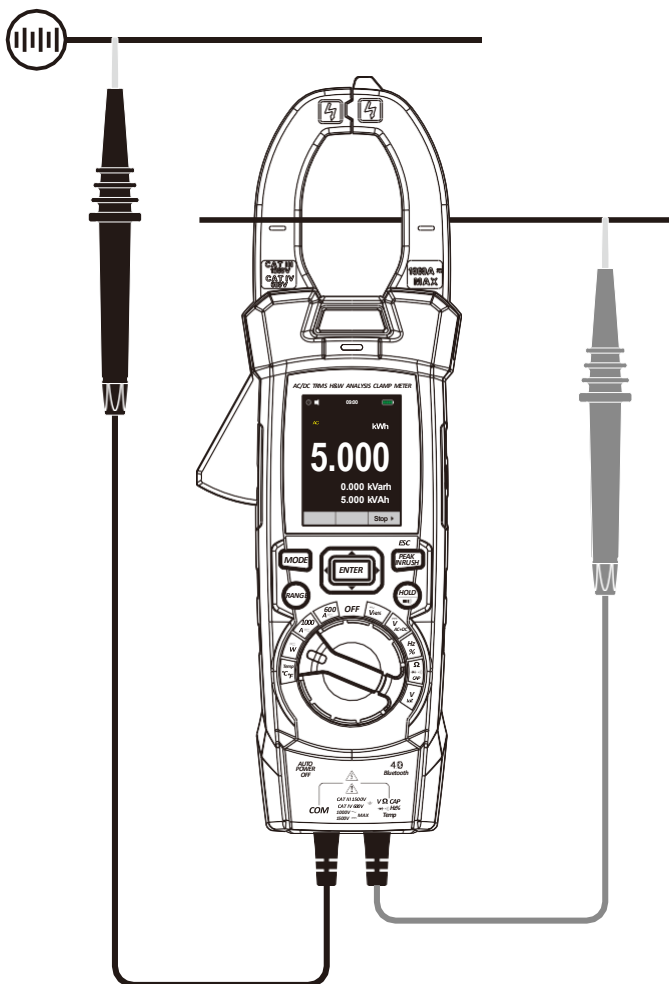
- Low Z is used to check for “ghost” voltage.
- Ghost voltages are present when non-powered wires are in close proximity to wires powered wires.
- Capacitive coupling between wires makes it appear that non-powered wires are connected to a real source of voltage.
- The Low Z setting places a load on the circuit, which greatly reduces the voltage reading when connected to ghost voltage.

1. Set the function switch to the **VLoZ** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Touch the test leads to the circuit under test.
4. Read the Voltage on the LCD display.



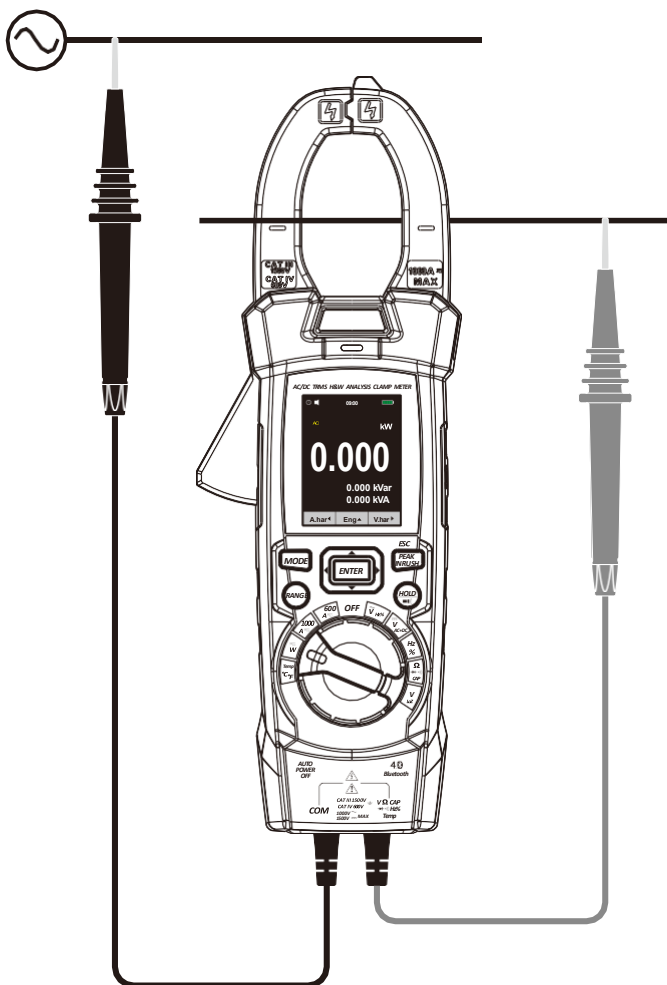
5-10. Energy (Active, Apparent, Reactive)

1. Set the function switch to the **W** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press the trigger to open the transformer jaws and clamp one conductor only, make sure that the jaw is firmly closed around the conductor.
4. Press the **Up** Button to Enter Energy Measurement.
5. Use the **Left** Button to select start, **Up** Button to select to return to the Previous Menu.



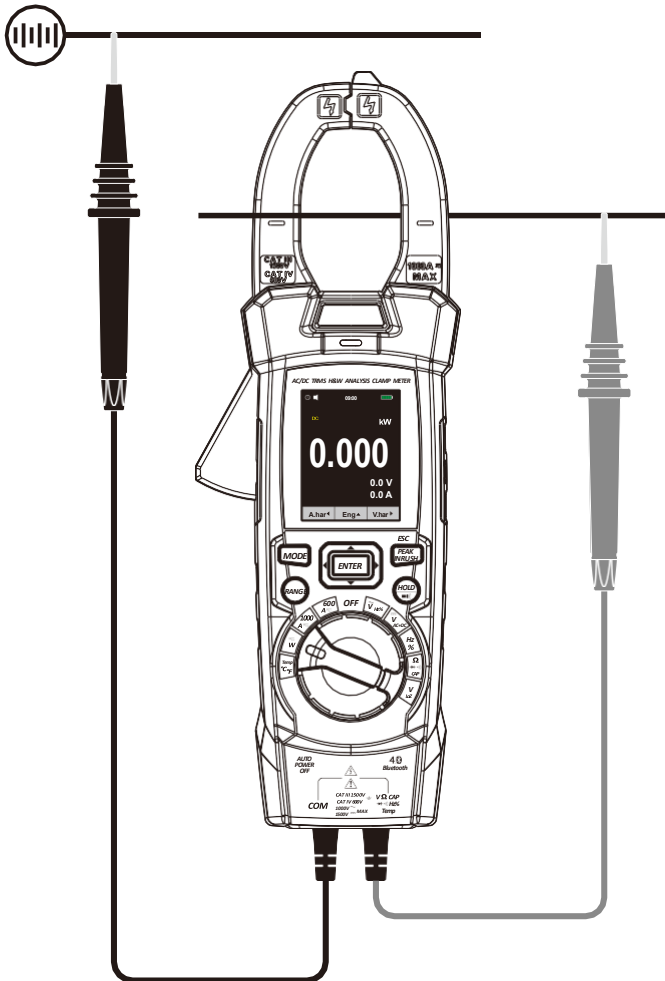
5-11. Measuring AC Power (Active, Apparent, Reactive)/Power Factor (PF)/Displace Power Factor

1. Set the function switch to the **W** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press the trigger to open the transformer jaws and clamp one conductor only, make sure that the jaw is firmly closed around the conductor.
4. Use the **MODE** Button to choose the AC Power mode or PF mode.



5-12. Measuring DC Power

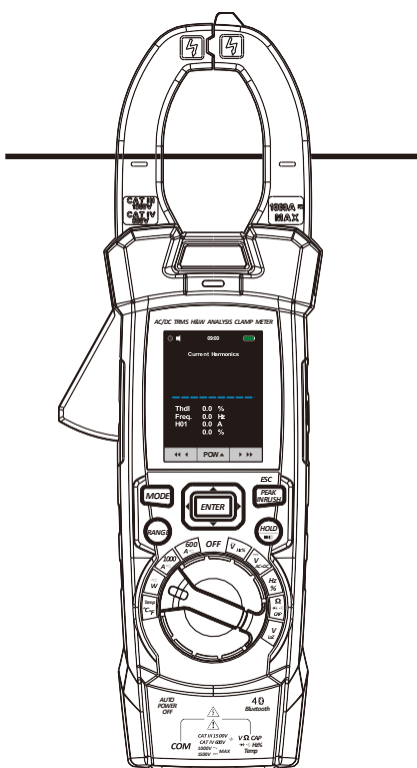
1. Set the function switch to the **W** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press the trigger to open the transformer jaws and clamp one conductor only, make sure that the jaw is firmly closed around the conductor.
4. Using the **MODE** Button to choose the DC Power mode.



5-13. Individual Harmonic Current Measurement

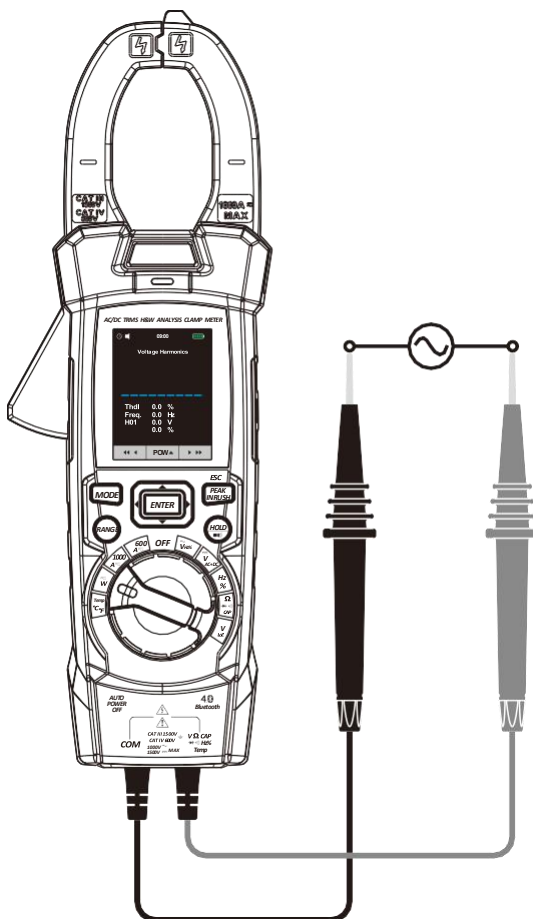
⚠ WARNING: Ensure that the test leads are disconnected from the meter before making current clamp measurements.

1. Set the rotary switch to the **W** Position.
2. Press and hold the **Left** Button to enter Current Harmonic Measurement.
3. Then press the **Left** and **Right** Button to enter the Individual Harmonic mode.
4. Connect the test leads in parallel to the circuit under test.
5. Read the Harmonic Current Measurement on the LCD display.



5-14. Individual Harmonic Voltage Measurement

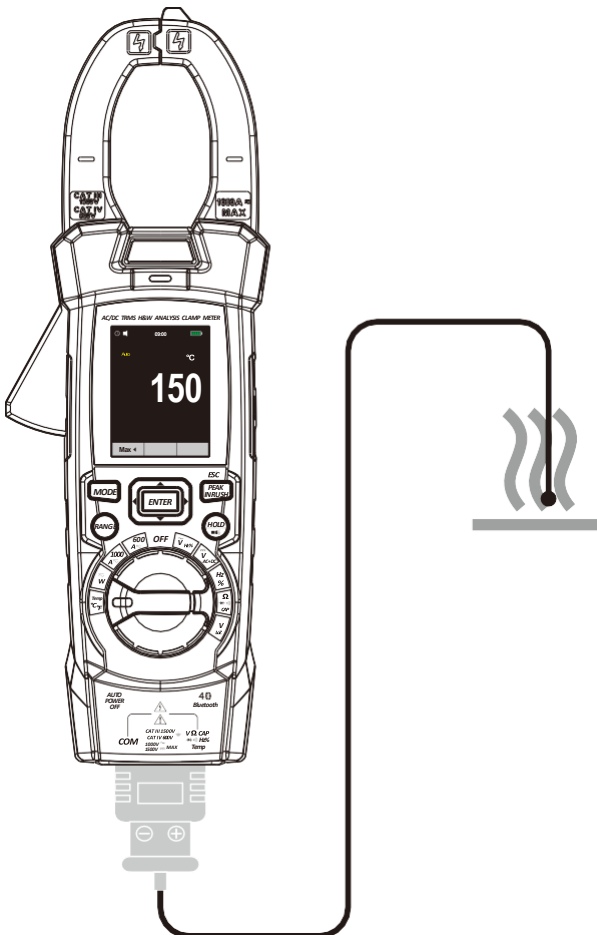
1. Set the rotary switch to the **W** Position.
2. Insert the black test lead banana plug into the **COM** Input Jack; Insert the red test lead banana plug into the **Positive** Input Jack.
3. Press and hold the **Right** Button to enter Voltage Harmonic Measurement.
4. Then press the **Left** and **Right** Button to enter the Individual Harmonic mode.
5. Connect the test leads in parallel to the circuit under test.
6. Read the Harmonic Voltage Measurement on the LCD display.



5-15. Temperature Measurement

⚠ WARNING: Do not touch the temperature probe to live circuits.

1. Set the rotary switch to the **Temp °C/°F** Position.
2. Press the **MODE** Button to select readings in °C or °F.
3. Connect the temperature probe to the banana plug adapter, note the “-” and “+” markings on the adapter.
4. Connect the adapter to the meter, making sure the “-” side goes into the **COM** Input Jack and the “+” side goes into the **Positive** Input Jack.
5. Touch the tip of the temperature probe to the object being measured, keep the probe touching the object until the reading stabilizes.
6. Read the Temperature on the LCD display.



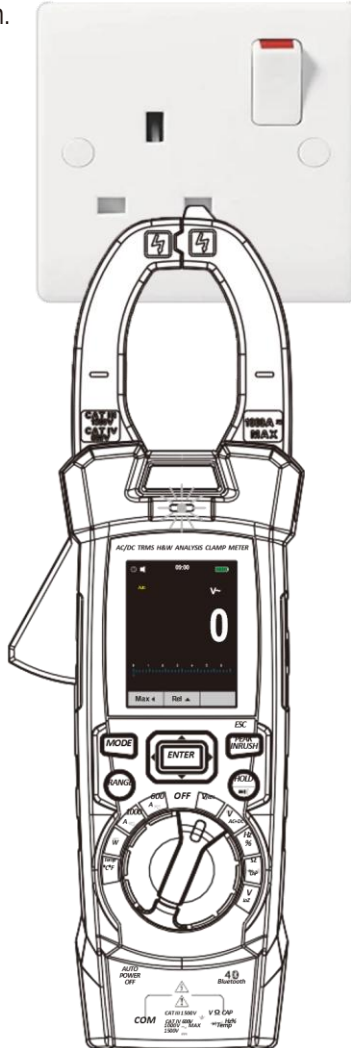
5-16. Non-Contact AC Voltage Detection

⚠ WARNING: Risk of electric shock. Before use, always test the voltage detector on a known live circuit to confirm correct operation.

1. Touch the probe tip to the hot conductor or insert into the hot side of the electrical outlet.
2. If AC voltage is present, the detector light will illuminate.

Note: The conductors in electrical cord sets are often twisted, for best results, rub the probe tip along a length of the cord to assure placing the tip in close proximity to the live conductor.

Note: The detector is designed with high sensitivity, static electricity or other sources of energy may randomly trip the sensor, this is normal operation.



6. Mobile App (Bluetooth)

6-1. Bluetooth Connection – MeterSync App

The DL6415BT features Bluetooth connectivity, allowing live measurements to be viewed and recorded using the **MeterSync** mobile app. The MeterSync app is available for download on **Android™ via Google Play™** and **iOS® via the App Store®**. Bluetooth communication has a typical operating range of up to **10 metres** in open environments.

6-2. Enabling Bluetooth on the DL6415BT

1. Turn on the DL6415BT.
2. Press the **ENTER** button.
3. Select **Setup** and press **ENTER**.
4. Press the **DOWN** arrow to highlight **Bluetooth**.
5. Press **ENTER** until the **ON/OFF** setting is highlighted in blue.
6. Use the **UP** or **DOWN** arrow keys to select **ON**.
7. Press **ENTER** to confirm.
8. Press the **MODE** button twice to return to the main measurement screen.

6-3. Connecting to the MeterSync App

1. Download and install the **MeterSync** app from Google Play or the App Store.
2. Open the MeterSync app on your mobile device.
3. Tap **Connect Device**.
4. Select **DL6415BT** from the list of available devices.
5. Choose **Multimeter & Clamp Meter** from the device options.
6. Wait for the connection to be established.

6-4. Using MeterSync

Once connected, MeterSync allows you to:

- View live measurement data in real time.
- Record and save readings.
- Monitor measurements remotely within a Bluetooth range of up to 10 metres.
- Access supported meter functions directly from the mobile app.

Note: Ensure Bluetooth is enabled on both the DL6415BT and your mobile device before attempting to connect. For reliable communication, keep the meter and mobile device within the specified Bluetooth range.



www.dilog.co.uk/mobile-apps

7. Maintenance

-  **WARNING:** To avoid electrical shock, disconnect the meter from any circuit, remove the test leads from the input terminals and turn off the meter before opening the case, do not operate the meter with an open case.

7-1. Cleaning and Storage

- Periodically wipe the case with a damp cloth and mild detergent, do not use abrasives or solvents.
- If the meter is not to be used for 60 days or more, remove the battery and store it separately.

7-2. Battery Replacement

- Switch the DL6415BT off before removing the battery.
- Using a flat-bladed screwdriver, rotate the rear battery cover screw **180° anti-clockwise**.
- Remove the battery cover.
- Carefully remove the **7.4V Li-ion rechargeable battery (1200mAh)** from the meter.
- Replace the battery
- Replace the battery cover and rotate the retaining screw **180° clockwise** to secure.

7-3. Battery Charging Procedure

- Switch the DL6415BT off before removing the battery.
- Using a flat-bladed screwdriver, rotate the rear battery cover screw **180° anti-clockwise**.
- Remove the battery cover.
- Carefully remove the **7.4V Li-ion rechargeable battery (1200mAh)** from the meter.
- Place the battery into the supplied charging dock.
- Connect the charging dock to the **correct charger only: 10V DC, 1A output**.
- The **red LED** indicates that the battery is charging.
- The **green LED** indicates that the battery is fully charged.
- Once charged, remove the battery from the charging dock.
- Refit the battery into the meter.
- Replace the battery cover and rotate the retaining screw **180° clockwise** to secure.

-  **WARNING:** Only use the specified **10V DC, 1A charger** supplied for use with this battery. Using an incorrect charger may damage the battery, charger, or meter and could create a safety hazard.

8. Specification

8-1. Technical Specifications

Function	Range	Resolution	Accuracy
AC True RMS Voltage (50Hz to 400Hz)	6.000V	0.001V	$\pm(1.2\% + 5 \text{ digits})$
	60.00V	0.01V	
	600.0V	0.1V	
	1000V	1V	

All AC voltage ranges are specified from 5% of range to 100% of range.

AC Voltage Bandwidth: 50Hz to 60Hz (All wave); 50Hz to 400Hz (Sine wave).

Accuracy PEAK function: $\pm 10\%$ rdg; PEAK response time: 1ms.

DC Voltage	600.0mV	0.1mV	$\pm(0.8\% + 8 \text{ digits})$
	6.000V	0.001V	$\pm(0.5\% + 8 \text{ digits})$
	60.00V	0.01V	
	600.0V	0.1V	
	1500V	1V	$\pm(1.5\% + 5 \text{ digits})$

AC+DC True RMS Voltage (50Hz to 400Hz)	6.000V	0.001V	$\pm(2.5\% + 20 \text{ digits})$
	60.00V	0.01V	
	600.0V	0.1V	
	1000V	1V	

Low Z AC TRMS Voltage	6.000V	0.001V	$\pm(3.0\% + 40 \text{ digits})$
	60.00V	0.01V	
	600.0V	0.1V	

Input impedance: $3k\Omega$

AC True RMS Current	600.0A	0.1A	$\pm(2.5\% + 8 \text{ digits})$
	1000A	1A	

All AC Current ranges are specified from 5% of range to 100% of range.

Frequency Response: 50Hz to 60Hz.

Accuracy Inrush function integral time 100ms and reading for reference only.

DC Current	600.0A	0.1A	$\pm(2.0\% + 8 \text{ digits})$
	1000A	1A	

Function	Range	Resolution	Accuracy
Resistance	600.0Ω	0.1Ω	±(1.2% + 5 digits)
	6.000kΩ	0.001kΩ	
	60.00kΩ	0.01kΩ	
	600.0kΩ	0.1kΩ	
	6.000MΩ	0.001MΩ	±(2.0% + 5 digits)
	60.00MΩ	0.01MΩ	±(2.5% + 8 digits)

Capacitance	60.00nF	0.01nF	±(3.0% + 20 digits)
	600.0nF	0.1nF	±(3.0% + 8 digits)
	6.000μF	0.001μF	
	60.00μF	0.01μF	
	600.0μF	0.1μF	
	6000μF	1μF	±(3.5% + 10 digits)
	60.00mF	0.01mF	±(5.0% + 20 digits)
	100.0mF	0.1mF	

Frequency (Electronic)	60.00Hz	0.01Hz	±(1.2% + 5 digits)
	600.0Hz	0.1Hz	
	6.000kHz	0.001kHz	
	60.00kHz	0.01kHz	
	600.0kHz	0.1kHz	
	6.000MHz	0.001MHz	
	10.00MHz	0.01MHz	

Sensitivity: 2V RMS (At 20% to 80% duty cycle) and <100kHz; 5V RMS (At 20% to 80% duty cycle) and >100kHz.

Duty Cycle	10.0 % to 90.0%	0.1%	±(1.2% + 8 digits)
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Pulse frequency range: 40Hz to 10kHz; Pulse amplitude: ±5V (100μs to 100ms).

Temperature	-40 to 1000°C	1°C	±(3.0% + 5°C)
	-40 to 1832°F	1°F	±(3.0% + 9°F)

Function	Range	Resolution	Accuracy
AC Power (Active, Apparent, Reactive)	0.00 to 99.99kW/kVA/KVAR	0.01kW/kVA/KVAR	$\pm(3.0\% + 10 \text{ digits})$
	100.0 to 999.9kW/kVA/KVAR	0.1kW/kVA/KVAR	$\pm(3.0\% + 5 \text{ digits})$

Protection against overcharge: 1000VDC/AC RMS.

Uncertainty defined for: Sine waveform 20 to 75Hz.

Voltage>10V; Current>10A; Pf $\geq$ 0.5; Below 2% range, add 20 counts.

DC Power	0.00 to 99.99kW	0.01kW	$\pm(3.0\% + 10 \text{ digits})$
	100.0 to 999.9kW	0.1kW	$\pm(3.0\% + 5 \text{ digits})$

Protection against overcharge: 1000VDC/AC RMS.

Voltage>10V; Current>10A; Pf $\geq$ 0.5; Below 2% range add, 20 counts.

Power Factor/Displace Power Factor	0.20 to 1.00	0.01	$\pm 3^\circ$
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Uncertainty defined for: Sine waveform 20 to 75Hz.

Voltage>10V; Current>10A; Pf $\geq$ 0.5; Below 2% range add 2°C.

Energy (Active, Apparent, Reactive)	0.000 to 9.999kWh/kVAh/KVARh	0.001kWh/kVAh/KVARh	$\pm(3.0\% + 10 \text{ digits})$
	10.00 to 99.99kWh/kVAh/KVARh	0.01kWh/kVAh/KVARh	$\pm(3.0\% + 5 \text{ digits})$

Protection against overcharge: 1000VDC/AC RMS, 1000ADC/AC RMS.

Uncertainty defined for: Sine waveform 20 to 75Hz.

Voltage>10V; Current>10A; Pf $\geq$ 0.5; Below 2% range, add 20 counts.

Function	Harmonic Orde	Base Wave Frequency	Resolution	Accuracy
Voltage Harmonics	1 to 25	20 to 75Hz	0.1%THD	$\pm(5.0\% + 8 \text{ digits})$
	1 to 8	75 to 400Hz	0.1%THD	$\pm(6.0\% + 8 \text{ digits})$

Protection against overcharge: 1000VDC/AC RMS.

Uncertainty defined for: Voltage>10V; Below 2% Voltage range, add 20 counts.

Current Harmonics	1 to 25	20 to 75Hz	0.1%THD	$\pm(5.0\% + 20 \text{ digits})$
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Protection against overcharge: 1000ADC/AC RMS.

Uncertainty defined for: Current >10A; Below 2% Current range, add 20 counts.

Note: Accuracy is stated at 18 to 28°C (65 to 83°F) and less than 75% RH.

Note: Accuracy specifications consist of two elements:

- (% reading)-This is the accuracy of the measurement circuit.
- (+ digits)-This is the accuracy of the analog to digital converter.

8-2. General Specifications

Clamp Size	Opening 1.45" (37mm) approx.
Environment	Indoor/Outdoor, do not expose to moisture, rain or snow
Over Voltage	CAT III 1500V, CAT IV 600V
Bluetooth	4.0
Diode Test	Test current 1mA max.; Open circuit voltage of 3.2V typical
Power (Bluetooth)	Class 2
Continuity Test	Audible signal if the resistance is <50Ω
Low Battery Indication	"  " is displayed
Display	6000 counts RGB LCD
Over Range Indication	"OL" is displayed
Polarity	Minus symbol "-" is displayed for negative polarity
PEAK	Captures peaks >1ms
INRUSH	100ms
Temperature Sensor	Type K thermocouple
Measurement Rate	3 readings per second, nominal
Auto Power Off	Users can set the automatic shutdown time
Input Impedance	>10MΩ AC and DC Voltage
AC Response	True RMS Responding
AC Voltage Bandwidth	50Hz to 400Hz
AC Current Bandwidth	50Hz to 60Hz
Battery	1x7.4V Rechargeable Li-ion Battery, 1200mAh
Operating Environment	5 to 40°C (41 to 104°F)
Storage Environment	-20 to 60°C (-4 to 140°F)
Operating Humidity	Max 80% up to 31°C (87°F) decreasing linearly to 50% at 40°C (104°F)
Storage Humidity	<80%
Operating Altitude	2000 meters (6562 ft.) maximum
Dimensions	286x99.8x49mm
Weight	Approx. 506g (No batteries)
Safety	CAT IV 600V, CAT III 1500V Conforms to UL STD. 61010-1, 61010-2-030, 61010-2-033 and 61010-031; Certified to CSA STD. C22.2, NO. 61010-1, 61010-2-30, 61010-2-033 and 61010-031.

9. Warranty & Calibration Information

Di-LOG instruments are subject to stringent quality controls. If in the course of normal daily use a fault occurs, we provide a 24-month warranty (only valid with proof of purchase). Faults in manufacture and material defects will be rectified by us free of charge, provided the instrument has not been tampered with and returned to us unopened. Damage due to dropping, abuse or misuse are not covered by the warranty.

Product Support
support@dilog.co.uk



To maintain the specified accuracy of the measurement results, the instrument must be recalibrated at regular intervals by Di-LOG. Di-LOG's service partner, Re-CAL Calibration, are the only authorised agent with the facility to adjust and service the DL6415BT digital clamp meter. We recommend an annual recalibration period from the date of purchase.

Service & Calibration
www.recal.biz



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AC/DC TRMS CLAMP METER Instruction Manual

Register your product with us to keep in contact with the latest updates and service reminders.



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