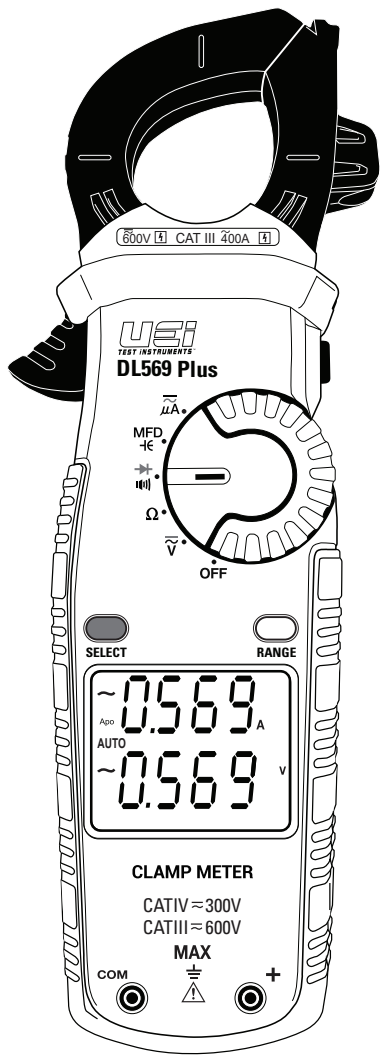
DL569 Plus

TEST iNSTRUMENTS

Dual Display Clamp Meter

INSTRUCTION MANUAL

ENGLISH



300V CAT IV

600V CAT III

RoHS Compliant

1-800-547-5740

www.ueitest.com • email: info@ueitest.com

Category Definitions

Measurement Category	Short-Circuit (typical) kA[a]	Location in the building installation
II	< 10	Circuits connected to mains socket outlets and similar points in the MAINS installation
III	< 50	Mains distributions parts of the building
IV	> 50	Source of the mains installation in the building

Warranty

The DL569 Plus is warranted to be free from defects in materials and workmanship for a period of 1 year from the date of purchase. If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at UEi'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. UEi shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss.

Warranty only covers hardware and does not extend to software applications.

A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge.

For more information on warranty and service, contact:

www.ueitest.com • Email: info@ueitest.com
1-800-547-5740

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

FCC/IC Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

⚠ WARNING
Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Functions

- 750V AC/1000V DC
- Resistance: 40MΩ
- 400A AC
- Diode test
- Audible continuity
- AC/DC microamps: 2000µA
- Capacitance: 4000µF

Features

- Dual display
- Auto/Manual ranging
- Low battery indicator
- Data Hold
- Auto power off
- Battery compartment latches
- Test lead storage
- Auto calibration
- Built-In Magnet w/ hanging strap: (Optional)
- Visible high-voltage alert

General Specifications

- **Operating Temperature:** 32˚F to 122˚F (0˚C to 50˚C)
- **Storage Temperature:** -4˚F to 140˚F (-20˚C to 60˚C)
- **Operating Humidity:** <80%
- **Pollution Degree:** 2
- **Display:** 3 3/4 digits, 4,000 count
- **Refresh Rate:** 3/sec
- **Over-range:** "OL" is displayed
- **Apo:** Auto power off after 30 minutes of use.
- **Dimensions:** 8.70" x 2.52" x 1.41"
- **Item Weight:** 0.62 lbs
- **CAT Rating:** CATIV 300V, CATIII 600V
- **Certifications:** cETLus UL 61010-1: 2012, IP42
- **Battery Type:** (AAA) 2
- **Test leads:** Test lead ATL55 w/alligator clips

Important Safety Warnings

⚠ WARNING
Read entire Safety Notes section regarding potential hazards and proper instructions before using this meter. 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.

⚠ WARNING
To ensure safe operation and service of the tester, follow these instructions. Failure to observe these warnings can result in severe injury or death.

⚠ WARNING

- Before each use, verify meter operation by measuring a known voltage or current.
- Never use the meter on a circuit with voltages that exceed the category based rating of this meter.
- Do not use this meter during electrical storms or in wet weather.
- Do not use the meter or test leads if they appear damaged.
- Ensure meter leads are fully seated and keep fingers away from the metal probe contact when making measurements. Always grip the leads behind the finger guards molded into the probe.
- Do not open the meter to replace batteries while the probes are connected.
- Use caution when working with voltages above 60 DC or 25 AC RMS. Such voltages pose shock hazards.
- To avoid false readings that can lead to electrical shock, replace batteries if a low battery indicator appears.
- Unless measuring voltage or current, shut off and lockout power before measuring resistance or capacitance.
- Always adhere to national and local safety codes. Use proper personal protective equipment (PPE) to prevent shock and arc blast injury where hazardous live conductors are exposed.
- Always turn off power to a circuit or assembly under test before cutting, unsoldering 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 the circuit.
- In the event of electrical shock, ALWAYS bring the victim to the emergency room for evaluation, regardless of victim's apparent recovery. Electrical shock can cause unstable heart rhythms that may need medical attention.
- If any of the following occur during testing, turn off the power source to the circuit being tested: arcing, flame, smoke, extreme heat, smell of burning materials or discoloration or melting of components.

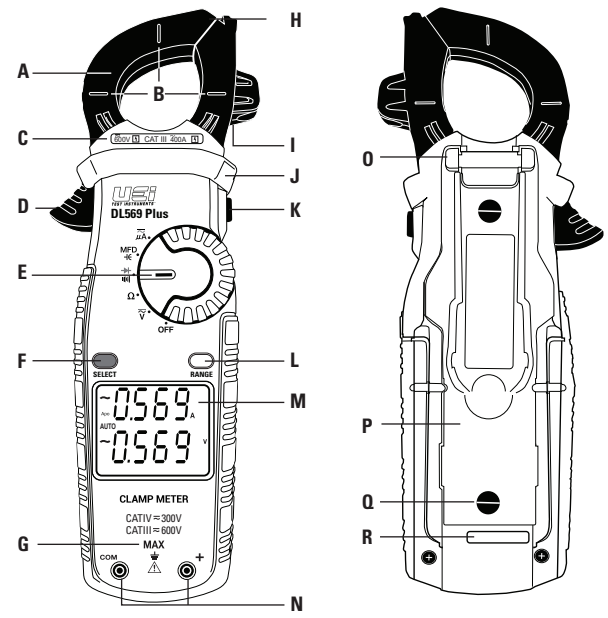
⚠ WARNING
Higher voltages and currents require greater awareness of physical safety hazards. Before connecting the test leads; turn off power to the circuit under test, set meter to the desired function and range; connect the test leads to the meter first, then connect to the circuit under test. Reapply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

⚠ WARNING
This meter is designed to provide HVAC/R technicians with the capabilities they need to diagnose and repair HVAC/R system. Observe all recommended safety procedures that include proper lockout utilization and use of personal protective equipment that includes safety glasses, gloves and flame resistant clothing.

Symbols

~	AC (Alternating current)	⎓	DC (Direct current)
▬	Negative	≂	AC/DC Voltage or µA Current
AUTO	Auto-ranging	OL	Overload: Range Exceeded
Apo	Auto power off Active	HOLD	Hold/Capture Value
▭+	Low Battery	Ω	Ohms/Resistance
V	Voltage	)))	Continuity
A	Amperage	m	Milli (x10^{-3} or 0.001)
⊣◀	Diode	⚠	Warning or Caution
k	Kilo (x10^{3} or 1,000)	⚠	Dangerous Levels
kΩ	Kilo Ohms	⚡	Safe for disconnect from live conductors
⊣⊧	Capacitance	⏚	Ground
µF	Microfarad	▣	Double Insulation (Protection to Class II)
µ	Micro (x10^{-6} or 0.000001)	ϟ	High Voltage Indication
M	Mega (x10^{6} or 1,000,000)	- - - -	No reading detected
nF	Nanofarad		
µA	Microamps		

Overview



A. Clamp: Measure inductive AC current. Opens to 1.26" (32.0mm).
B. Conductor Alignment Marks: Use to aid 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.
C. Category Max Indicator: Maximum CAT Rating for clamp jaw.
D. 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 base as the jaws close.*
E. Rotary Selector Dial: Set Rotary Selector Dial desired function
F. SELECT Button:
- Press select ACV or DCV on voltage setting; to activate Diode or Continuity on Diode/Continuity setting; AC or DC on µA setting;

G. Category Max Indicator: Maximum CAT Rating for input jacks.
H. Wire Separation Tab: Use to isolate an individual wire from a bundle for testing.
I. Test Lead Holder
J. Hand Guide: Used as a point of reference for the operator's safety.
K. Hold Button:
- Press to hold the reading on the display. Press again to return to live reading.
- Press hold during power up to disable the Auto power off function.

L. RANGE Button:
- Press to set manual range desired

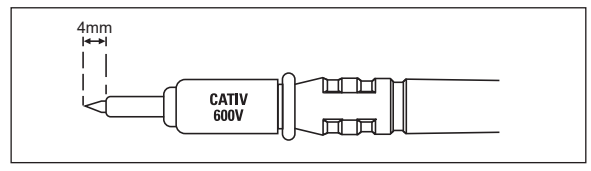
M. Display:
- High contrast dual display.
- AC amps reading will always display on upper display.

N. Test Lead Input Jacks: Multifunction and Positive input jacks.
- Multifunction input port used for measuring: AC or DC volts, resistance, continuity, diode, capacitance, AC or DC µA

O. Bracket for optional magnetic holder strap (sold separately**).**
P. Battery Cover: Easy access for replacing batteries without breaking calibration seal.
Q. Battery Compartment Latches
R. Serial Number

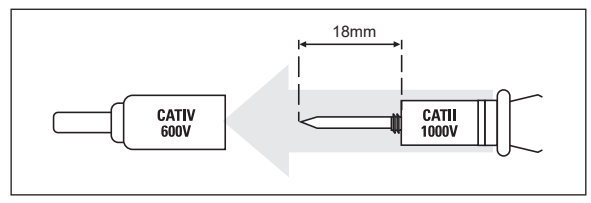
Test Lead Notes

Cat IV and CAT II Measurement Locations



- Ensure the test lead shield is pressed firmly in place. Failure to use the CAT IV shield increases arc-flash risk.

CAT II Measurement Locations

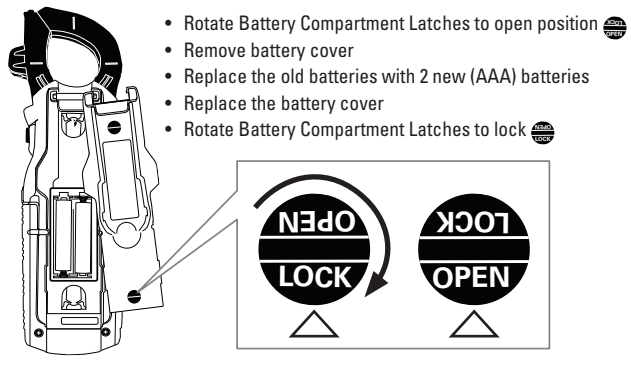


- CAT IV shields may be removed for CAT II locations. This will allow testing on recessed conductors such as standard wall outlets. Take care not to lose the shields.

⚠ WARNING: Test Lead category protections apply only to test leads and should not be confused with the meter's specific CAT rating. Observe the maximum category protection indicated on the meter the test leads are plugged into.

⚠ CAUTION: If the test leads need to be replaced, you must use a new one which should meet EN 61010-031 standard, rated CATIII 1000V or better.

Battery Replacement



- Rotate Battery Compartment Latches to open position
- Remove battery cover
- Replace the old batteries with 2 new (AAA) batteries
- Replace the battery cover
- Rotate Battery Compartment Latches to lock

Disposal

⚠ CAUTION: This symbol indicates that equipment and its accessories shall be subject to separate collection and correct disposal.

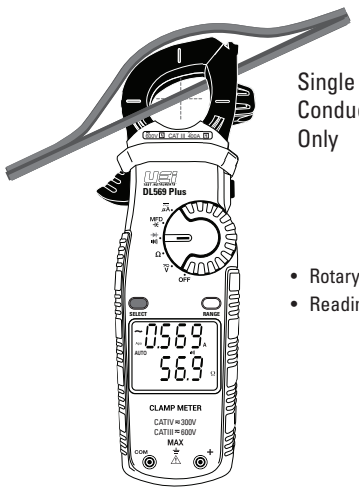
Cleaning

Periodically clean your meter's case using a damp cloth. DO NOT use abrasive, flammable liquids, cleaning solvents, or strong detergents as they may damage the finish, impair safety, or affect the reliability of the structural components.

Storage

Remove the batteries when instrument is not in use for a prolonged period of time. Do not expose to high temperatures or humidity. After a period of storage in extreme conditions exceeding the limits mentioned in the General Specifications section, allow the instrument to return to normal operating conditions before using it.

AC Amps <400A Jaw



Single
Conductor
Only

- Rotary selector dial = any position
- Reading show on upper display

- AC Amps can be measured in any position of the rotary selector dial.
- Center wire in guides for best accuracy.
- Opposing currents cancel each other (use line-splitter when necessary).
- Keep hands below guard when measuring high current levels.
- Do not attempt to measure more than 400A AC.

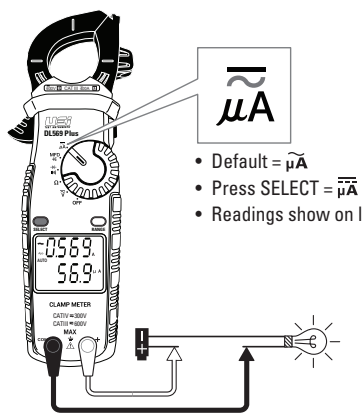
Features: HOLD RANGE

AC Amps Measurement - Jaw input

Range	Resolution	Accuracy	Overload Protection
40.00A	0.01A	±2.5% + 8dgts	600V RMS
400.0A	0.1A	±2.0% + 8dgts	

45Hz to 400Hz Averaging RMS
Minimum Current for Clamp Measurement: 0.3A

AC/DC Microamps: <2000µA



- Default = µA
- Press SELECT = µA
- Readings show on lower display

⚠ WARNING
- Do not attempt to measure more than 2000µA.

Features: HOLD SELECT RANGE

DC Microamps Measurement -Test lead input

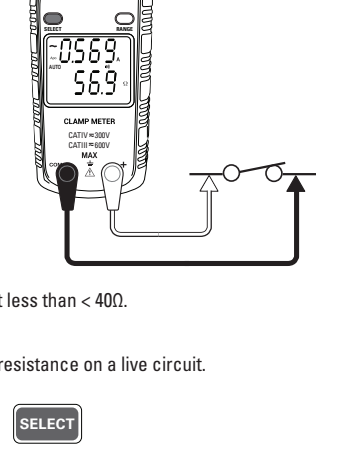
Range	Resolution	Accuracy	Overload Protection
400.0uA	0.1uA	±1.2% + 3dgts	600V RMS
2000uA	1uA		

AC Microamps Measurement -Test lead input

Range	Resolution	Accuracy	Overload Protection
400.0uA	0.1uA	±2.0% + 5dgts	600V RMS
2000uA	1uA	±1.5% + 5dgts	

45Hz to 400Hz Averaging RMS

Continuity



- Default = 🔊

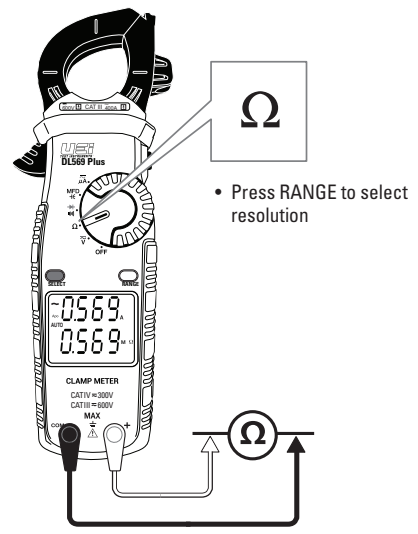
- Buzzer sounds at less than < 40Ω.

⚠ WARNING
- Do not measure resistance on a live circuit.

Features: HOLD SELECT

Open circuit voltage < 0.44V	Overload Protection
Threshold Approx. <40Ω	600V RMS

Resistance: < 40MΩ



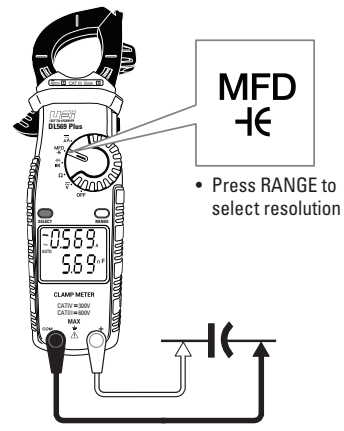
- Press RANGE to select resolution

Features: HOLD RANGE

⚠ WARNING
- Do not measure resistance on a live circuit.

Range	Resolution	Accuracy	Overload Protection
400.0Ω	0.1Ω	±1.0% + 4dgts	600V RMS
4.000kΩ	0.001kΩ		
40.00kΩ	0.01kΩ		
400.0kΩ	0.1kΩ		
4.000MΩ	0.001MΩ		
40.00MΩ	0.01MΩ	±2.0% + 4dgts	

Capacitance



- Press RANGE to select resolution

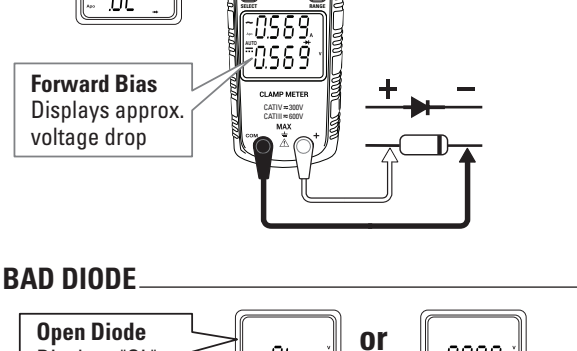
Features: HOLD RANGE

Range	Resolution	Accuracy	Overload Protection
40.00nF	0.01nF	3.5% + 6dgts	600V RMS
400.0nF	0.1nF		
4.000uF	0.001uF		
40.00uF	0.01uF		
400.0uF	0.1uF		
4000uF	1uF		

⚠ WARNING To avoid damaging the meter or equipment under test, safely discharge Capacitors before measuring capacitance. Large value capacitors should be discharged through an appropriate resistance load. Use the DC Voltage function to confirm the capacitor discharge.

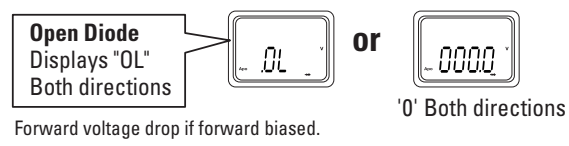
Diode

GOOD DIODE



- Default = 🔊
- Press SELECT = →|

BAD DIODE



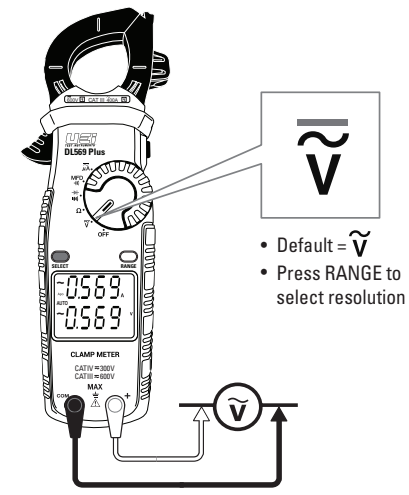
- Forward voltage drop if forward biased.
- "O.L." if reverse biased.

Features: HOLD SELECT

Diode Test

Range	Open Circuit Voltage	Test Current (Typical)	Overload Protection
4.0V	< 3.0V DC	0.25mA	600V RMS

Voltage: 750V AC



- Default = Ṽ
- Press RANGE to select resolution

⚠ WARNING
- Use CATIII rated test leads or higher.
- Do not attempt to measure more than 750V AC.
- Keep hands below line when measuring high current levels.

⚠ WARNING
- Audible alert will sound over 600V AC
- High Voltage indicator will display (without audible alert) over 30V AC

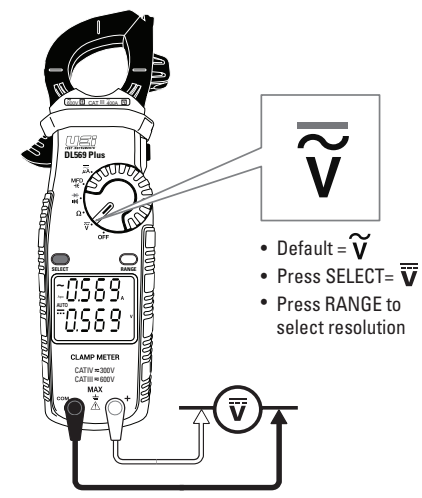
Features: HOLD RANGE SELECT

AC Volts

Range	Resolution	Accuracy	Overload Protection
400.0mV	0.1mV	±2.0% + 5dgts	750V RMS
4.000V	0.001V		
40.00V	0.01V		
400.0V	0.1V		
750V	1V		

45Hz to 400Hz Averaging RMS

Voltage: 1000V DC



- Default = Ṽ
- Press SELECT= V̄
- Press RANGE to select resolution

⚠ WARNING
- Use CATIII rated test leads or higher.
- Do not attempt to measure more than 1000V DC.
- Keep hands below line when measuring high current levels.

⚠ WARNING
- Audible alert will sound over 600V DC
- High Voltage indicator will display (without audible alert) over 30V DC

Features: HOLD SELECT RANGE

DC Volts

Range	Resolution	Accuracy	Overload Protection
400.0mV	0.1mV	±0.5% + 4dgts	1000V RMS
4.000V	0.001V		
40.00V	0.01V		
400.0V	0.1V		
1000V	1V	±0.8% + 10dgts	