




DCM320 Clampmeter

User Guide

1. Safety Information

To ensure safe operation and service of the Meter, follow these instructions.

Failure to observe warnings can result in severe injury or death.

- Avoid working alone so assistance can be rendered.
- To enhance safety, test leads should be disconnected from instrument when not in use.
- Do not use test leads or the Clamp Meter if they look damaged.
- Do not use the Meter if the Clamp Meter is not operating properly or if it is wet.
- Use the Clamp Meter only as specified in the Instruction card or the protection provided by the Clamp Meter might be impaired.
- Special precautions are necessary when operating in situations where exposed live parts at dangerous voltages may be encountered. Personal protective equipment (not supplied with this instrument) should be used.
- To avoid false readings that could lead to electric shock and injury, replace the battery as soon as the low battery indicator () appears.

1.1 Maintenance

Do not attempt to repair this Clamp Meter.











It contains no user-serviceable parts. Repair or serving should only be performed by qualified personal.

1.2 Cleaning

Periodically wipe the case with a dry cloth and detergent do not use abrasives or solvents.

1.3 Safety, Hazard and Warning symbols on the instrument

This paragraph details the various safety and hazard icons on the instrument's outer case.

Icon	Description
	Warning: High Voltage, risk of electric shock
	Caution: Refer to user guide.
	UK conformity. This equipment complies with current UK legislation
	EU conformity. Equipment complies with current EU directives.
	Equipment complies with current 'C tick' requirements.
	Do not dispose of in the normal waste stream.
	Equipment protected throughout by double insulation.
	Reference earth connection. Not a protective earth terminal
	Battery
	Application around and removal from hazardous live conductors is permitted

CAT IV - Measurement category IV: Equipment connected between the origin of the low-voltage mains supply and distribution panel.

CAT III - Measurement category III: Equipment connected between the distribution panel and electrical outlets.

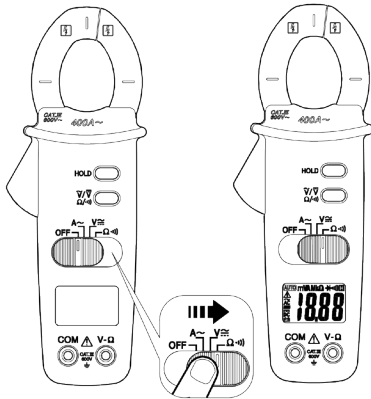
CAT II - Measurement category II: Equipment connected between the electrical outlets and user's equipment.

CAT I - Measurement category I: The circuits are not connected to mains.

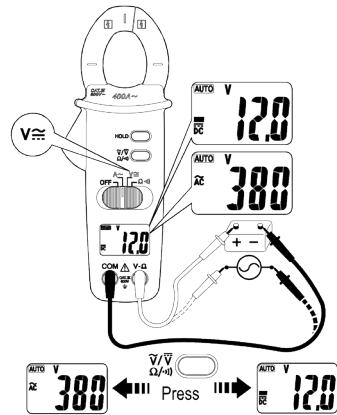
Measurement equipment may be safely connected to circuits at the marked rating or lower. The connection rating is that of the lowest rated component in the measurement circuit.

2. Operation

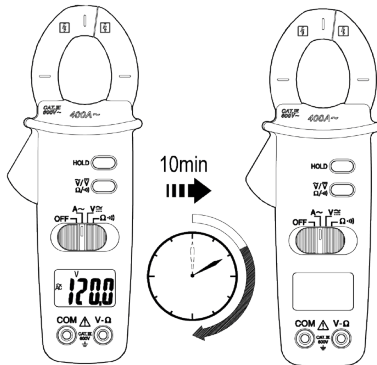
2.1 Power On / Off



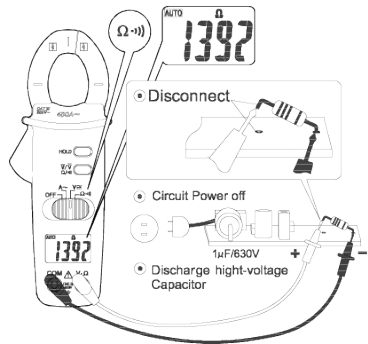
2.3 AC V / DC V



2.2 Auto Power Off

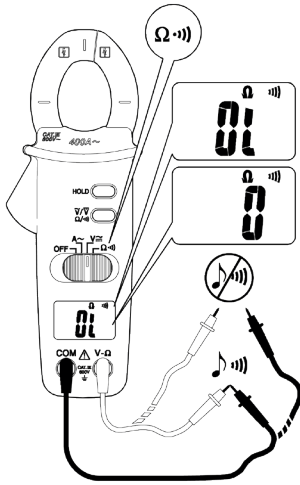


2.4 Resistance

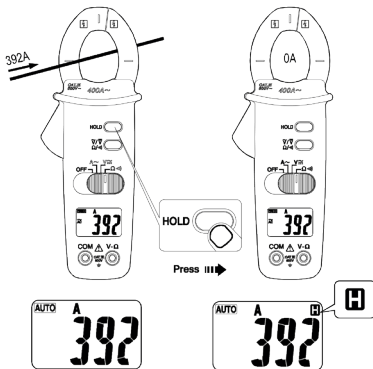


The meter will automatically shut itself off after approximately 10 minutes after power on.

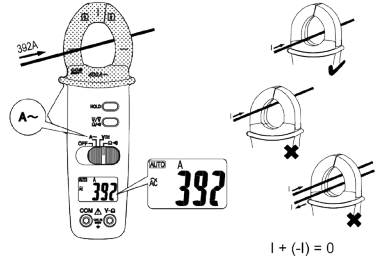
2.5 Continuity



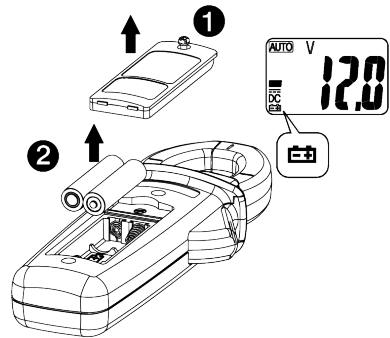
2.6 Data Hold




2.7 ACA




2.8 Battery Replacement



To avoid false readings that could lead to electric shock and injury, replace the battery as soon as the low battery indicator () appears.

Specifications

3. Specifications

Specification	Detail
1-1 General Specifications	
LCD display digits	3 1/2 digit large scale LCD readout.
Display count	2000 counts
Measuring rate :	1.5 times / sec
Overrange display :	"OL" is displayed for "Ω" functions, shows the real value for "A" and "V" function.
Automatic power off time :	Approximately 10 minutes after power on.
Low battery indicator :	 is displayed. Replace battery immediately
Power requirement :	1.5 V AAA x 2 battery. Rechargeable batteries are not suitable for use with this instrument
1-2 Environmental Conditions Indoor Use.	
Calibration :	One year calibration cycle.
Operating temperature :	0 °C ~ 30 °C (≤80% RH) 30 °C ~ 40 °C (≤75% RH) 40 °C ~ 50 °C (≤45%RH)
Storage temperature :	-20 to +60 °C, 0 to 80% RH (batteries not fitted).
Overvoltage category :	IEC 61010-1 600V CAT.III.
Operating altitude :	2000 m (6562 ft)
Conductor Size :	27 mm diameter.
Pollution degree :	2
EMC :	EN 61326-1
Shock vibration :	Sinusoidal vibration per MIL-T- 28800E (5 ~ 55 Hz, 3 g maximum).
Drop Protection :	1.2 m drop to hardwood on concrete floor.
Dimensions (W x H x D) :	56 mm x 188 mm x 28mm
Weight :	225 g including battery.
Accessories :	Battery (installed), Carrying case, Test lead and User manual.
1-3 Electrical Specifications	
Accuracy is ±(% reading + number of digits) at 23 °C ±5 °C < 80%RH.	
Temperature coefficient :	Add 0.2 x (Specified accuracy) / °C, < 18 °C, > 28 °C .

DC / AC Volts	Range DC	Accuracy	AC Accuracy
	200.0 V	$\pm(1.0\% + 2 \text{ dgt})$	$\pm(1.5\% + 5 \text{ dgt})$ 50 Hz ~ 500 Hz
	600 V		
Over voltage protection :	DC / AC 600 V		
Input Impedance :	10 M Ω // less than 100 pF.		
CMRR / NMRR :	(Common Mode Rejection Ratio) (Normal Mode Rejection Ratio)		
VAC :	CMRR > 60 dB at DC, 50 Hz / 60 Hz		
VDC :	CMRR > 100 dB at DC, 50 Hz / 60 Hz NMRR > 50 dB at DC, 50 Hz / 60 Hz		
AC Conversion Type :	Average sensing rms indication.		
AC Current	Function	Range	Accuracy
	A~ (50~60 Hz)	0.0 ~ 40.0 A	$\pm(1.9\% + 10 \text{ dgt})$
		40.0 ~ 200.0 A	$\pm(1.9\% + 5 \text{ dgt})$
		201 ~ 400 A	$\pm(1.9\% + 5 \text{ dgt})$
Overload protection :	600 A rms		
AC Conversion Type :	Average sensing rms indication.		
Position Error :	$\pm 1.0\%$ of reading.		
Resistance	Range	Accuracy	
	200.0 Ω *3	$\pm(1.0\% + 5 \text{ dgt})$ *2	
	2.000 K Ω *3	$\pm(0.7\% + 2 \text{ dgt})$	
	20.00 K Ω *3		
	200.0 K Ω *3	$\pm(1.0\% + 2 \text{ dgt})$	
	2.000 M Ω *3		
	20.00 M Ω	$\pm(1.9\% + 5 \text{ dgt})$ *1	
Overload protection :	600V rms		

Specifications

Open circuit Voltage :	-1.3 V approx. * 1 < 100 dgt rolling. * 2 < 10 dgt rolling. * 3 The maximum LCD reading is 1400 counts.
Continuity :	Internal beeper activates if the resistance of the circuit under test is less than 20 Ω . It will then turn off if the resistance is increased beyond 50 Ω . Response time is approximately 50 m sec.
Overload protection :	600 V rms.

4. Limited Warranty

This Meter is warranted to the original purchaser against defects in material and workmanship for 1 year from the date of purchase. During this warranty period, manufacturer will, at its option, replace or repair the defective unit, subject to verification of the defect or malfunction.

This warranty does not cover , disposable batteries, or damage from abuse, neglect, accident, unauthorized repair, alteration, contamination, or abnormal conditions of operation or handling.

Any implied warranties arising out of the sale of this product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. The manufacturer 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, expense or economic loss. Some states or countries laws vary, so the above limitations or exclusions may not apply to you.

5. Decommissioning

5.1 WEEE Directive

The crossed out wheeled bin symbol placed on Megger products is a reminder not to dispose of the product at the end of its life with general waste.

Megger is registered in the UK as a Producer of Electrical and Electronic Equipment. The Registration No is WEE/ HE0146QT.

For further information about disposal of the product consult your local Megger company or distributor or visit your local Megger website.

5.2 Battery disposal

The crossed out wheeled bin symbol placed on a battery is a reminder not to dispose of batteries with general waste when they reach the end of their usable life.

For disposal of batteries in other parts of the EU contact your local Megger branch or distributor.

Megger is registered in the UK as a producer of batteries (registration No.: BPRN00142).

For further information see www.megger.com



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The company reserves the right to change the specification or design without prior notice.

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