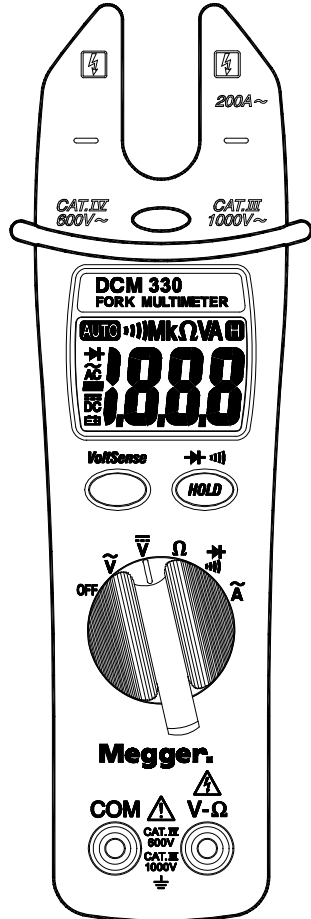


Megger.

DCM330 Fork multimeter User Guide



Read First

△ 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.

Symbols as marked on the Tester and Instruction card

⚠	Risk of electric shock
📄	See instruction card
🛡	Equipment protected by double or reinforced insulation
🔋	Battery
⚡	Earth
CE	Conforms to EU directives
🔌	Application around and removal from hazardous live conductors is permitted
♻	Do not discard this product or throw away

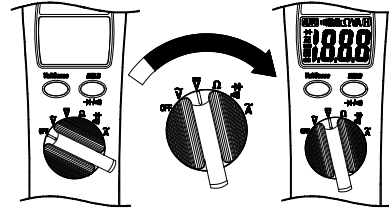
Maintenance

Do not attempt to repair this Clamp Meter. It contains no user-serviceable parts. Repair or serving should only be performed by qualified personal.

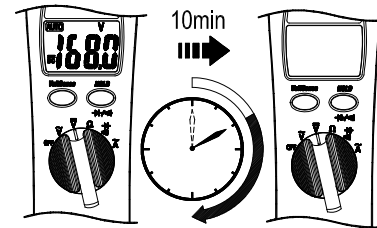
Cleaning

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

Power On / Off

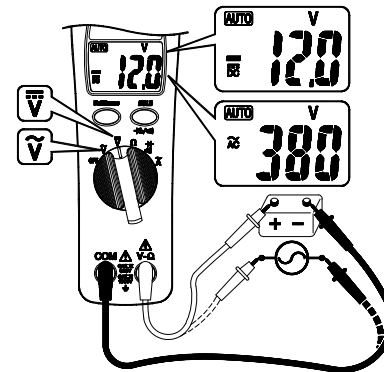


Auto Power Off

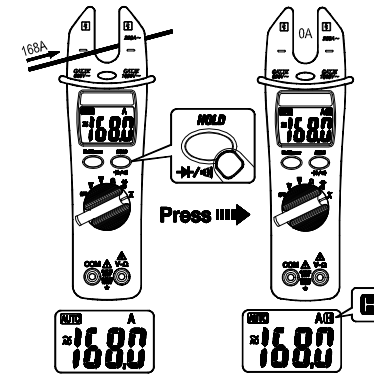


The meter will automatically shut itself off after approximately 10 minutes after power on.

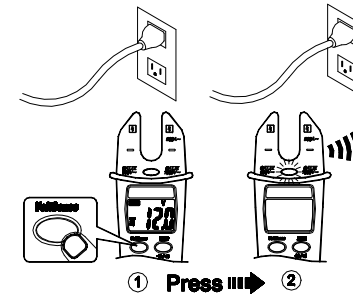
AC V / DC V



Data Hold

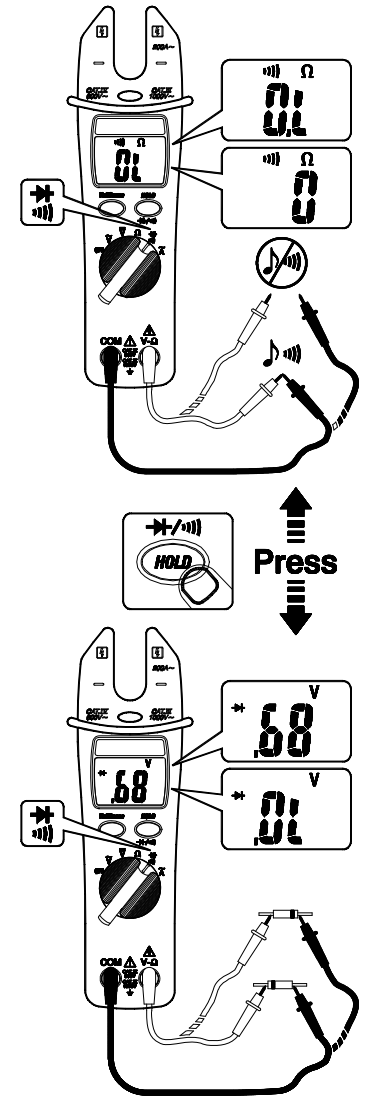


VoltFinder

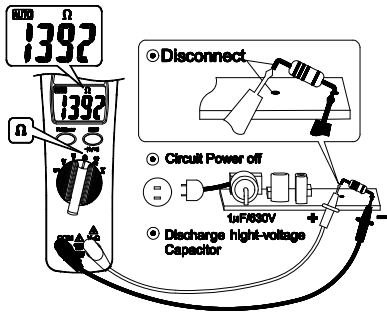


1. VoltFinder can be activated on any range including OFF.
2. Test leads are not used for the VoltFinder function.
3. Press and hold the VoltFinder button. The display will go black, a tone sounds and the red LED near the fork jaw will illuminate briefly to verify that the instrument is operational. Continue to hold the VoltFinder button.
4. If a voltage of 50V to 1000V (50 to 500Hz) is detected near the jaw, a continuous tone sounds and the red LED near the jaw illuminates.

Diode / Continuity

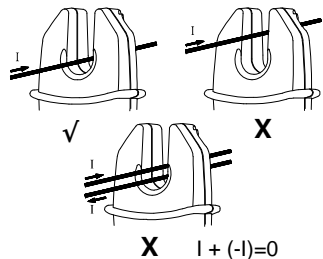
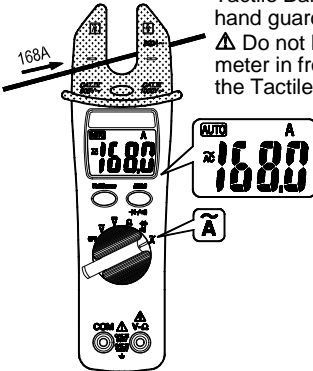


Resistance

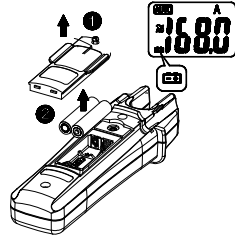


ACA

⚠ CAT.IV.600V with respect to earth for the jaw. Tactile Barrier for hand guard.
⚠ Do not hold the meter in front of the Tactile Barrier.



Battery Replacement



Specifications

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.
Power requirement :
 R03 UM4 AAA 1.5V x 2 batteries
Battery life : ALKALINE 250 hours. Not suitable for use with rechargeable cells.

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).
Dimensions (W x H x D) :
 54mm x 193mm x 31mm
Weight : 280g including battery.
Accessories : Battery (installed), Carrying case and User manual.
Overvoltage category :
 IEC 61010-1 1000V CAT. III.
 600V CAT. IV.

CAT Application field

I	The circuits not connected to mains.
II	The circuits directly connected to Low-voltage installation.
III	The building installation.
IV	The source of the Low-voltage installation.

Operating altitude : 2000m (6562 ft)
Conductor Size : 16mm diameter.
Pollution degree : 2
EMC : EN 61326-1
Shock vibration :
 Sinusoidal vibration per MIL-T-28800E (5 ~ 55 Hz, 3g maximum).
Drop Protection :
 1.2m drop to hardwood on concrete floor.

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
200.0V	±(1.0% + 2dgt)	±(1.5% + 5dgt) 50Hz ~ 500Hz
1000V		

Over voltage protection :
 DC / AC1000V
Input Impedance :
 2 MΩ // less than 100pF.
CMRR / NMRR :
(Common Mode Rejection Ratio)
(Normal Mode Rejection Ratio)
 V_{AC} : CMRR > 60dB at DC,
 50Hz / 60Hz
 V_{DC} : CMRR > 100dB at DC,
 50Hz / 60Hz
 NMRR > 50dB at DC,
 50Hz / 60Hz

AC Conversion Type :
 Average sensing rms indication.

AC Current

Function	Range	Accuracy
A~ (50~60Hz)	0.0 ~ 200.0A	±(3.0% + 3 dgt)

Overload protection : 400 Arms
AC Conversion Type :
 Average sensing rms indication.
*** Adjacent conductor influence :**
 <0.08 A/A

Resistance

Range	Accuracy
200.0 Ω	±(1.0% + 2 dgt)
2.000 KΩ	
20.00 KΩ	
200.0 KΩ	
2.000MΩ	±(1.9% + 5 dgt) *1
20.00 MΩ	

Overload protection : 600Vrms
Open circuit Voltage :
 -1.3V approx.
 * 1 < 100 dgt rolling.
 * 2 < 10 dgt rolling.

Diode Check and Continuity

Resolution	Accuracy
1 mV	±(1.5%+0.05 V)*

* For 0.4V ~ 0.8V
Max. Test Current : 1.5mA
Max. Open Circuit Voltage : 3V
Overload Protection : 600Vrms
Continuity : Internal beeper activates if the resistance of the circuit under test is less than 50Ω. It will then turn off if the resistance is increased beyond 250Ω.
 Response time is approximately 0.25~1 sec.

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.

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DCM330

Fork Multimeter



- **200.0 A ac Open Jaw current measurement**
- **0.1 V to 1000 V auto-ranging ac and dc voltage measurement**
- **0.1 Ω to 20.00 M Ω resistance range**
- **Continuity buzzer and diode check**
- **Non-contact detection of AC voltage**
- **CAT III 1000V and CAT IV 600 V**

DESCRIPTION

The Megger DCM330 Fork Multimeter is a convenient, compact instrument designed to measure ac current up to 200 A, and perform the basic functions of a basic multimeter.

With ac and dc voltage measurements up to 1000 V and resistance measurements up to 20 M Ω , a non-contact voltage detection facility and a continuity buzzer with diode check, the Megger DCM330 is a truly versatile instrument. All of these features combined into a single compact instrument eliminate the need for separate multimeter and clampmeter.

The large central range knob enables ambidextrous single-handed use, and the separate voltage/resistance test leads can be disconnected when not in use.

The open-jaw design of the clampmeter enable simple and fast measurements to be made on single conductors up to 16mm diameter. With no moving clamp parts, the Megger DCM330 is not susceptible to dirt, grit or moisture around the cable, so is equally ideal for use in dirty trenches or trunking; or clean laboratory conditions. It provides average responding RMS values, and with the conductor(s) positioned centrally and squarely within the jaws, achieves readings of better than 3% accuracy.

The Megger DCM330 is auto-ranging on all ranges. Current measurement and the non-contact voltage sensor do not need the test leads; all other functions will require their use.

The voltage detection function can identify the presence of live AC voltages from 50 V to 1000 V at 50 to 500 Hz.

It is operational on any range including OFF. Voltage is capacitively detected, signalled by a tone sounding and the illumination of a red LED situated below the clamp head.

The Megger DCM330 is powered by 2 x AAA cells providing 250 hours of operation, and has an auto-off feature that activates after approximately 10 minutes.

The tough body provides easy and comfortable grip, providing durability while stored in a tool box or pocket. The DCM330 is designed to withstand a 1.22m (4 feet) drop without damage.

The display is a large 3½ digit LCD. In difficult or awkward locations, the display can be frozen with the "HOLD" function, removed from the cable under test and read independently.

ADDITIONAL FEATURES

- **Compact pocket sized design**
- **Auto power-off**
- **Supplied with detachable test leads and carry-case**

APPLICATIONS

The DCM330 is suitable for use anywhere where there is a requirement to measure ac current in single unshielded conductors less than 16mm diameter, or ac/dc voltages up to 1000 V, or resistances up to 20 MΩ.

Typical applications include domestic and industrial wiring installation fault-finding, basic load analysis, equipment commissioning and maintenance, machinery installations, etc.

Note: The non-contact Voltfinder function is intended to identify live cables within the jaws, and is not suitable for use on shielded conductors such as armoured cable or those within or behind metallic or conductive panels, in metal conduit, etc.

SPECIFICATION

(accuracies specified at 23°C)

AC current

Frequency	Range	Accuracy
50 - 60 Hz	0 - 200.0 A	±3% ±3 digits

Average sensing, RMS indicating

Overload protection: 400 A rms

AC/DC volts

Range	DC	AC
200.0 V	±1% ±2 digits	±1.5% ±5 digits
1000 V		50 Hz - 500 Hz

Input impedance: 2 MΩ (<100 pF)

Overvoltage protection: 1000 V

Resistance

Range	Accuracy
200.0 Ω	±1% ±5 digits
2.000 kΩ	±1% ±2 digits
20.00 kΩ	
200.0 kΩ	
2.000 MΩ	
20.00 MΩ	±1.9% ±5 digitsΩ

Overload protection: 600 V rms

Diode check

1 mV: ±1.5% ±0.05 V

Overvoltage protection: 600 V rms

Continuity

Buzzer operates: <50 Ω

Turns off: >250 Ω

Response time: 0.25 sec - 1 sec

Display

3 1/2 digit large LCD

2000 count

Sample rate: 1.5/sec

Overrange: "OL"

Auto power off

10 minutes after power on

Battery

R03 UM4 AAA 1.5 V x 2 (not suitable for rechargeable cells)

Life: 250 hours (alkaline cells)

Calibration: 12 months

Operating altitude: 2000 m

Operating temperature

0°C - 30°C (>80% RH)

30°C - 40°C (>75% RH)

40°C - 50°C (>45% RH)

Storage temperature

-20°C - +60°C (0 - 80% RH) (batteries not fitted)

Dimensions

54 mm (W) x 193 mm (H) x 31 mm (D)

Weight

280 g (battery installed)

Safety

IEC61010-1 1000 V CAT III

600 V CAT IV

EMC

EN 61326-1

Drop protection

1.2 m drop onto hard floor

ORDERING INFORMATION

Item (Qty)	Order Code
Fork Multimeter; 200A ac; 1000V dc	1000-219
Included accessories	
Batteries	
Pouch	
Test leads	
User guide	
Replacement test leads	
Red/black test leads with croc clips	6220-779
Red/black fused test leads (500 mA) with croc clips	6220-789