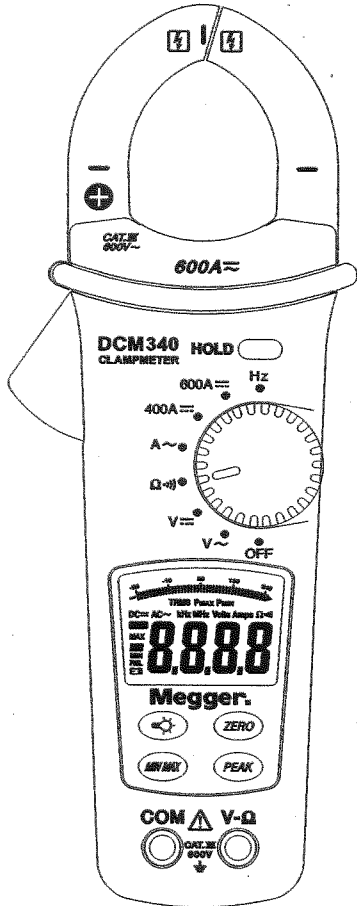


Megger.

DCM340 Clampmeter 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.
- The test leads could be disconnected from the instrument when making a current measurement.
- Use caution with voltages above 30 V ac rms, or 60 V dc. These voltages pose a shock hazard.

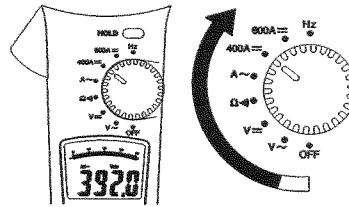
Symbols as marked on the Meter and Instruction card

| | |
|----|--|
| ⚠ | Risk of electric shock |
| 📖 | See instruction card |
| ⎓ | DC measurement |
| 🛡 | Equipment protected by double or reinforced insulation |
| 🔋 | Battery |
| ⚡ | Earth |
| ~ | AC measurement |
| CE | Conforms to EU directives |

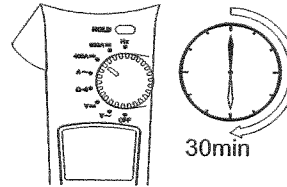
△ Caution

If the meter is used in the vicinity of equipment which generates electromagnetic interference, the display may become unstable or the measurements show may be subject to large errors.

Off / On



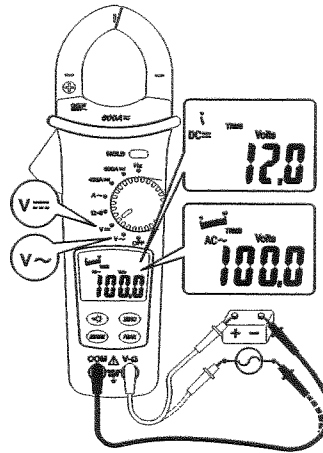
Auto Power Off



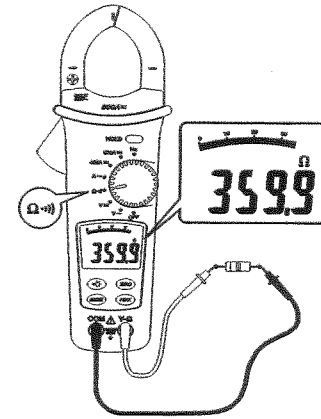
Auto Power Off disable :

Press buttons (except Hold button) than switch the rotary knob to power on the Meter.

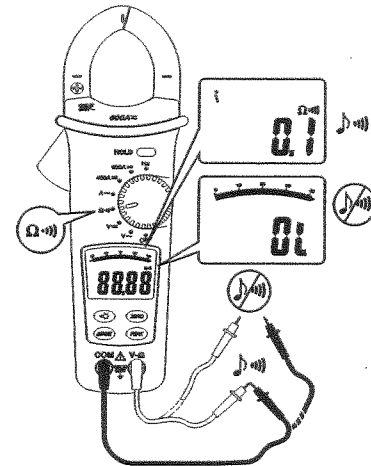
AC V / DC V



Resistance



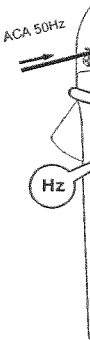
Continuity



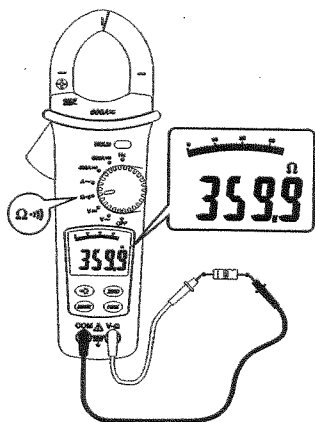
ACA



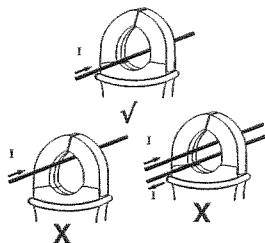
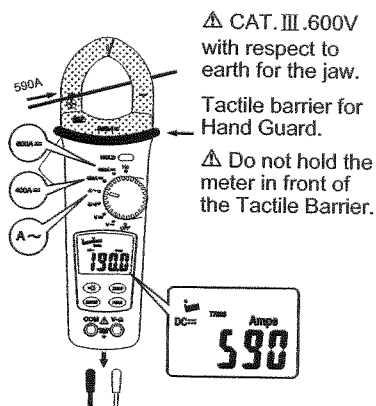
Hz



Resistance

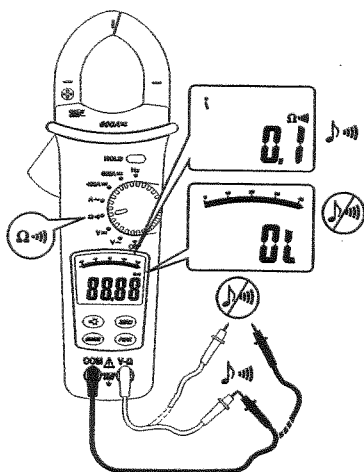


ACA / DCA

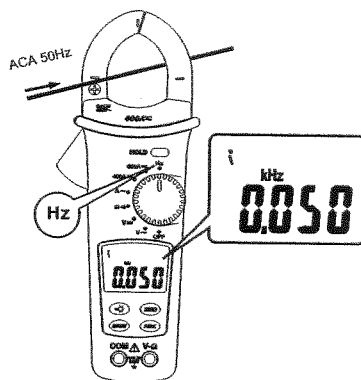


1 + (-) = 0

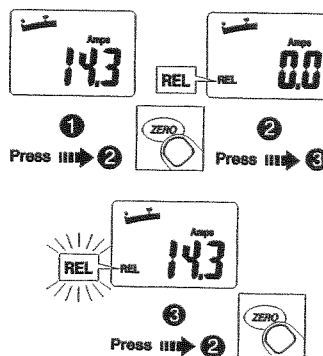
Continuity



Hz

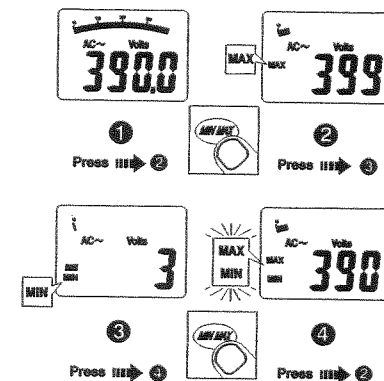


Zero



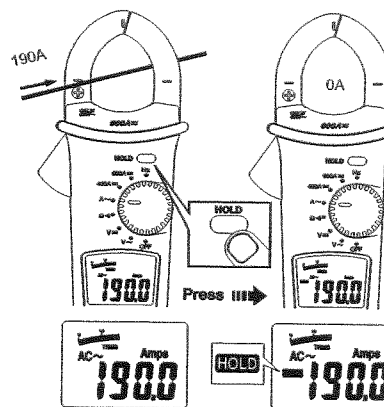
- ② REL: Meter save the displayed offset value after one press of the ZERO button. The LCD is displaying the relative value.
- ③ REL (flashing): A second press of the ZERO button saves the offset value, with the present value then displayed.
- ① Normal : Press and hold ZERO for ≥ 2 sec to return to normal operation and cancel the offset value.

Min / Max Hold

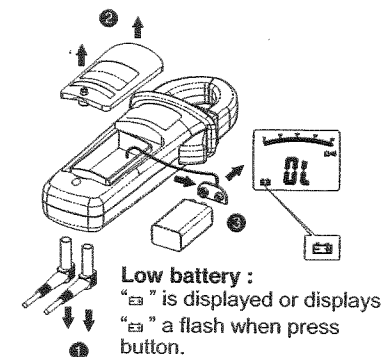


- ② MAX: Meter is saving the maximum and minimum value. Maximum value is displayed.
- ③ MIN: Meter is saving the maximum and minimum value. Minimum value is displayed.
- ④ MAX MIN (flashing): Meter is saving the maximum and minimum values. Present value is displayed.
- ① Normal : Press and hold MIN/MAX to return to normal operation.

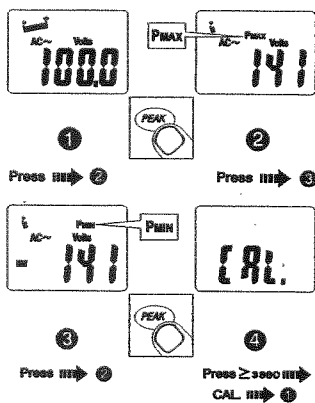
Data Hold



Battery Replacement

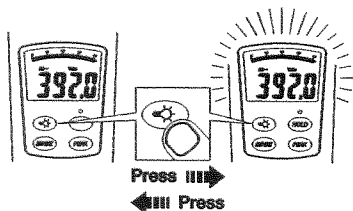


Peak Hold



- ② **P_{MAX}**: Meter is saving the peak maximum and minimum value. Peak maximum value is displayed.
- ③ **P_{MIN}**: Meter is saving the peak maximum and minimum value. Peak minimum value is displayed.
- ④ **CAL**: Press and hold PEAK button ≥ 3 sec to **calibrate** the Meter itself for accurate measurement.
- ① **Normal**: Press and hold PEAK button to return to normal operation.

Back Light



Back light Automatic off after 60 seconds.

Specifications

1-1 General Specifications

LCD display digits:
3 3/4 digit large scale LCD readout.
Display count: 4000 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 30 minutes after power on.

Low battery indicator:
⊖ is displayed. Replace the battery when the indicator ⊖ appears in the display.

Power requirement:
9V PP3 / 6LR61 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 ($\leq 80\%$ RH)

30°C ~ 40°C ($\leq 75\%$ RH)

40°C ~ 50°C ($\leq 45\%$ RH)

Storage temperature:

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

Overvoltage category:

IEC 61010-1 600V CAT. III.

CAT. III equipment is designed to protect against the transients in the equipment in fixed installations, such as distribution panels, feeders and short branch circuits and lighting systems in large buildings.

Operating altitude: 2000m (6562 ft)

Conductor Size: 35mm 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 $\pm(\%$ reading + number of digits) at 23°C $\pm 5^\circ\text{C}$ < 80%RH.

Temperature coefficient:
0.2 x (Specified accuracy) / °C,
< 18°C, > 28°C.

Voltage

| Function | Range | Accuracy |
|-----------------|----------------------------|--|
| V _~ | 0~400.0Vrms 400~600Vrms | $\pm(1.0\% + 5 \text{ dgt})$ 50Hz ~ 500Hz |
| V ₌₌ | 0~400.0 V 400~600 V | $\pm(0.7\% + 2 \text{ dgt})$ |

Overload protection: 600V rms

Input impedance: 1MΩ // less than 100pF.

AC Conversion Type:

AC Conversion are average sensing rms indication calibrated to the rms value of a sine wave input.

Resistance & Continuity

| Function | Range | Accuracy |
|----------|--------|----------------------------|
| Ω | 400.0Ω | $\pm(1\% + 3 \text{ dgt})$ |

Overload protection: 600V rms

Max. open circuit voltage: 3V

Continuity check: Internal sounds activates if the resistance of the circuit under test is less than 30Ω approximately.

AC Current

| Function | Range | Accuracy |
|------------------------------|----------|---------------------------------|
| A _~ (50~60Hz) | 0~400.0A | $\pm(1.5\% + 5 \text{ dgt})$ *1 |
| | 400~600A | $\pm(2.0\% + 7 \text{ dgt})$ |
| A _~ (61~400Hz) | 0~400.0A | $\pm(2.0\% + 5 \text{ dgt})$ *1 |
| | 400~600A | $\pm(2.5\% + 7 \text{ dgt})$ |

*1: Over 80% of full scale add $\pm 1.6\%$

Overload protection: 600A rms
AC Conversion Type and additional accuracy is same as AC Voltage.

Position Error: $\pm 1\%$ of reading.

DC Current

| Function | Range | Accuracy |
|-----------------|----------|------------------------------|
| A ₌₌ | 0~400.0A | $\pm(1.2\% + 5 \text{ dgt})$ |
| | 400~600A | $\pm(1.9\% + 7 \text{ dgt})$ |

Overload protection: 600A rms

Position Error: $\pm 1\%$ of reading.

Addition error according to remanence: 1% max. of current crest.

Auto Power Off (APO)

The meter will automatically shut itself off after approximately 30 minutes after power on.

Frequency : Hz

| Range | Resolution | Accuracy |
|----------|------------|------------------------------|
| 20~400Hz | 1Hz | $\pm(0.1\% + 2 \text{ dgt})$ |

Overload protection: 600A rms.

Sensitivity: 3A rms for ACA (A_~) (>400Hz Unspecified)

Peak Hold: $\pm (3\% + 15 \text{ dgt})$

*>600Vpeak Unspecified.

*>600Apeak Unspecified.

Min
accl
* Au
res
anc

Ma
Do r
It co
part
be p

Cle
Peri
dry c
abra

AC Current

| Function | Range | Accuracy |
|------------------|----------|---------------------------------|
| A~ (50~60Hz) | 0~400.0A | $\pm(1.5\% + 5 \text{ dgt}) *1$ |
| | 400~600A | $\pm(2.0\% + 7 \text{ dgt})$ |
| A~ (61~400Hz) | 0~400.0A | $\pm(2.0\% + 5 \text{ dgt}) *1$ |
| | 400~600A | $\pm(2.5\% + 7 \text{ dgt})$ |

*1 : Over 80% of full scale add $\pm 1.6\%$

Overload protection : 600A rms
AC Conversion Type and additional accuracy is same as AC Voltage.

Position Error : $\pm 1\%$ of reading.

DC Current

| Function | Range | Accuracy |
|----------|----------|------------------------------|
| A== | 0~400.0A | $\pm(1.2\% + 5 \text{ dgt})$ |
| | 400~600A | $\pm(1.9\% + 7 \text{ dgt})$ |

Overload protection : 600A rms

Position Error : $\pm 1\%$ of reading.

Addition error according to remanence : 1% max. of current crest.

Auto Power Off (APO)

The meter will automatically shut itself off after approximately 30 minutes after power on.

Frequency : Hz

| Range | Resolution | Accuracy |
|----------|------------|------------------------------|
| 20~400Hz | 1Hz | $\pm(0.1\% + 2 \text{ dgt})$ |

Overload protection : 600A rms.

Sensitivity : 3A rms for ACA (A~)
(>400Hz Unspecified)

Peak Hold : $\pm (3\% + 15\text{dgt})$

*>600Vpeak Unspecified.

*>600Apeak Unspecified.

Min/Max Hold : add $\pm 15 \text{ dgt}$ to accuracy for ACA / DCA.

* Automatically switch to the low resolution range at Peak Hold and MIN MAX Hold.

Maintenance

Do not attempt to repair this 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.

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 fuses, 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.

Megger Limited

Archcliffe Road, Dover, CT17 9EN
United Kingdom
Tel +44 (0) 1304 502100

Valley Forge Corporate Centre
2621 Van Buren Avenue, Norristown
PA 19403, USA
Tel +1-979-690-7925

Email sales@megger.com
Web www.megger.com