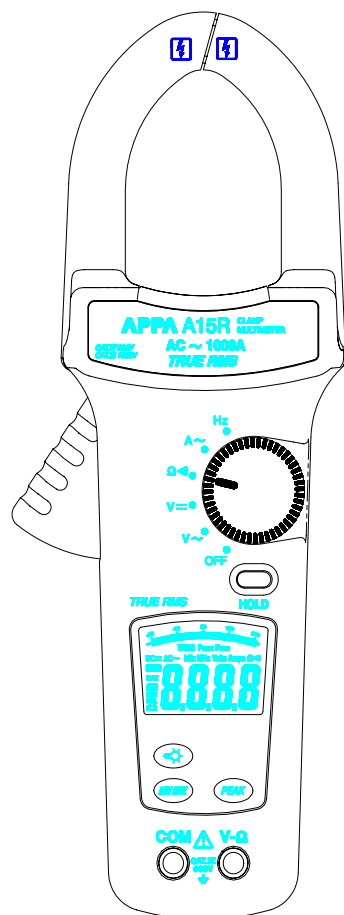




**A15 / 15R
Clamp Meter**

**Instruction
Card**



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.
- Do not use test leads or the Meter if they look damaged.
- Do not use the Meter if the Meter is not operating properly or if it is wet.
- Use the Meter only as specified in the Instruction card or the protection by the Meter might be impaired.
- Use extreme caution when working around bare conductors or bus bar. Contact with the conductor could result in electric shock.
- Use caution with voltages above 30 V ac rms, or 60 V dc. These voltages pose a shock hazard.

Symbols as marked on the Tester and Instruction card

	Risk of electric shock
	See instruction card
	DC measurement
	Equipment protected by double or reinforced insulation
	Battery
	Earth
	AC measurement
	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.

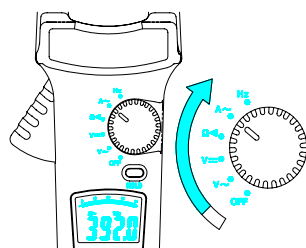
Maintenance

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

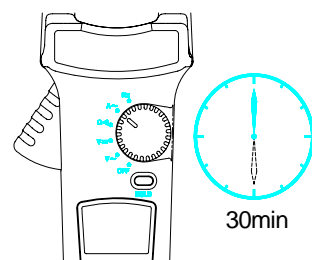
Cleaning

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

Power On / Off



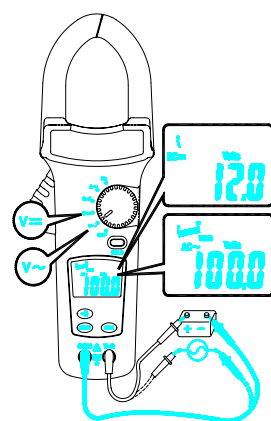
Auto Power Off



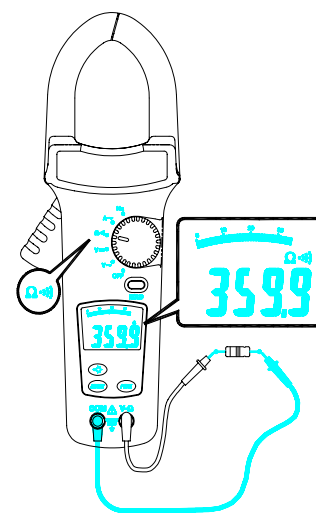
Auto Power Off disable :

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

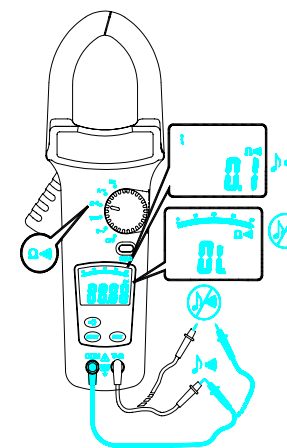
AC V / DC V



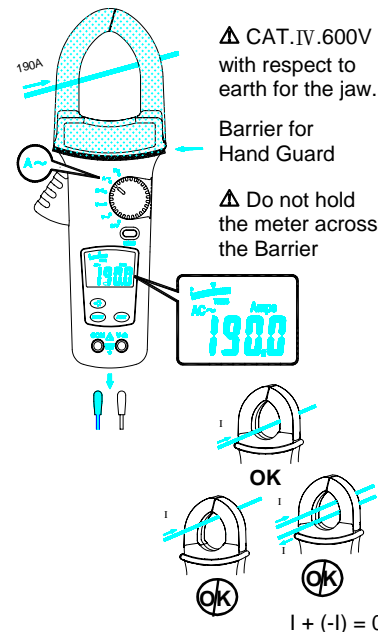
Resistance



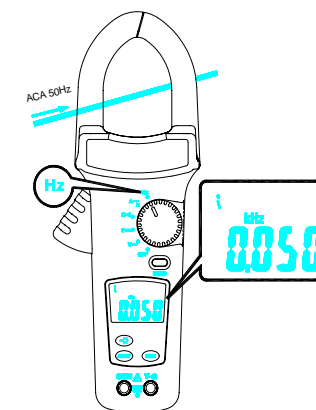
Continuity



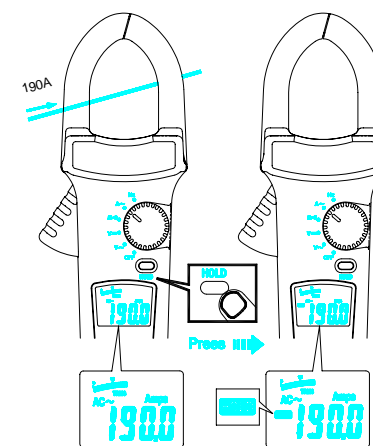
ACA



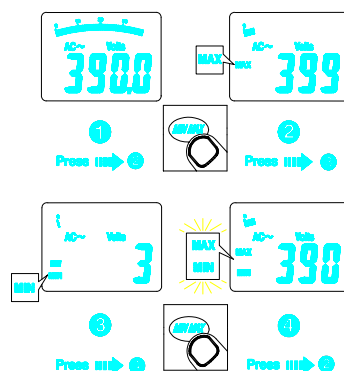
Hz



Data Hold

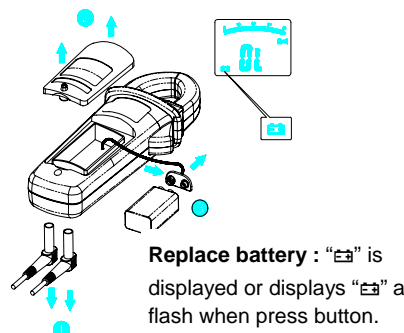


Min / Max Hold



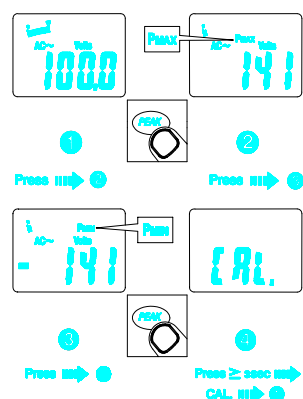
- 2 **MAX:** Meter is saving the maximum and minimum value. Maximum value is displayed.
- 3 **MIN:** Meter is saving the maximum and minimum value. Minimum value is displayed.
- 4 **MAX MIN (flashing):** Meter is saving the maximum and minimum values. Present value is displayed.
- 1 **Normal:** Press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

Battery Replacement



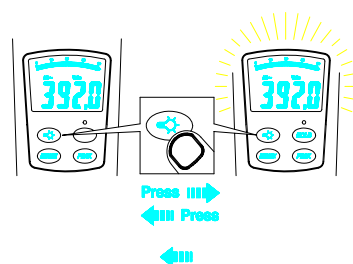
Replace battery: "OL" is displayed or displays "OL" a flash when press button.

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:

OL is displayed.

Power requirement:

9V battery for APPA 15R.

1.5V x 2 AA size batteries for APPA 15.

Battery life: ALKALINE 9V 200 hours for APPA 15R.

ALKALINE 1.5Vx2 AA size 600 hours for APPA 15.

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.IV.

CAT.IV equipment of OVERVOLTAGE CATEGORY IV is for use at the origin of the installations. Note examples include electricity meters and primary over-current protection equipment.

Operating altitude: 2000m (6562 ft)

Conductor Size: 51mm diameter.

Pollution degree: 2

EMC: EN 61326-1

Shock vibration:

Sinusoidal vibration per MIL-T-28800E (5 ~ 55 Hz, 3g maximum).

1-3 Electrical Specifications

Accuracy is \pm (% reading + number of digits) at 23°C \pm 5°C < 80%RH.

Temperature coefficient:

Add 0.2 x (Specified accuracy) / °C, < 18°C, > 28°C.

Voltage

Function	Range	Accuracy
V \sim	0~400.0Vrms 400~750Vrms	\pm (1.0%+ 5 dgt) 50Hz ~ 500Hz *1
V $\overline{\sim}$	0~400.0 V 400~1000 V	\pm (0.7% + 2 dgt)

Overload protection:

750Vrms//1000Vdc

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

AC Conversion Type:

A15: AC Conversion are average sensing rms indication calibrated to the rms value of a sine wave input.

A15R:

*1: Reading less than 15% of full scale (4000 digits) is needed to add 4 digits and the settling time will increase.

AC Conversions are ac-coupled, true rms responding, calibrated to the rms value of a sine wave input. Accuracies are given for sine wave at full scale and non-sine wave below half scale. For non-sine wave add the following Crest Factor corrections:

For Crest Factor of 1.4 to 2.0, add 1.0% to accuracy.

For Crest Factor of 2.0 to 2.5, add 2.5% to accuracy.

For Crest Factor of 2.5 to 3.0, add 4.0% to accuracy.

CF \leq 2 600V//600A

CF \leq 1.5 1000A

Resistance & Continuity

Function	Range	Accuracy
Ω	400.0Ω	\pm (1% + 3 dgt)

Overload protection: 600 Vrms

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 \sim (50~60Hz)	0~60.0A	\pm (1.9% + 7 dgt) *1
	60.1~400.0A	\pm (1.9% + 5 dgt)
	401~1000A	
A \sim (61~400Hz)	0~400.0A	\pm (2.5% + 7 dgt) *1
	401~1000A	

Overload protection: 1000 Arms

*1 AC Conversion Type and additional accuracy is same as AC Voltage.

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

Frequency: Hz

Range	Resolution	Accuracy
20~400Hz	1Hz	\pm (0.1% + 2 dgt)

Overload protection:

AC/DC 1000 Arms

Sensitivity: 3 Arms for ACA (A \sim) (>400Hz Unspecified)

Peak Hold: \pm (3% + 10dgt)

*>750Vpeak Unspecified.

*>800Apeak Unspecified.

The range is automatically switched to the low resolution range at Peak Hold or Min Max Hold.

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.

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