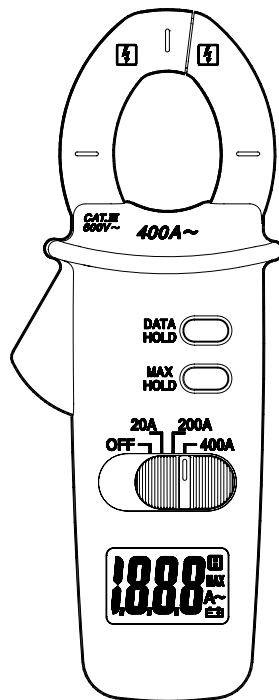


# ISO-TECH ICM 20 CURRENT CLAMP

## INSTRUCTION MANUAL



### # **Safety Information**

For safe operation of this instrument, read these instructions completely before you use it and comply with them fully.

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

- If possible, do not work alone, so assistance can be given if required.
- Do not use the instrument if it is damaged.
- Do not use the instrument if it is not operating correctly, or if it is wet.
- If this instrument is used in a manner not specified in these Operating Instructions, the protection provided by the instrument may be impaired.
- Use extreme caution and wear Personal

Protective Equipment when taking measurements where Hazardous Live parts could be Accessible.

- Use caution when measuring or working near voltages above 30 V ac rms, or 60 V dc. These voltages may cause a shock.

- Do not allow fingers to protrude beyond the Tactile Barrier when fitting or removing the instrument from around a Hazardous Live conductor, as this may cause a shock.

### Symbols as marked on the Instrument and Instruction card

∇	Caution, Risk of electric shock
#	Caution, Risk of danger – Refer to operating instructions.
1	Equipment protected throughout by double or reinforced insulation
□	Battery
)	Earth
6	Conforms to applicable EU directives



Application around and removal from Hazardous Live conductors is permitted

### # Caution

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

### TEST EQUIPMENT RISK ASSESSMENT

*Users of this equipment and/or their employers are reminded that Health and Safety Legislation requires them to carry out a valid risk assessments of all electrical work, so as to identify potential sources of electrical danger and risk of electrical injury such as from inadvertent short circuits.*

### ***Cleaning, Maintenance and Repair***

To clean the instrument, wipe the case with a damp cloth and detergent; do not use abrasives or solvents.

Remove the batteries if the instrument is to be stored for a long period.

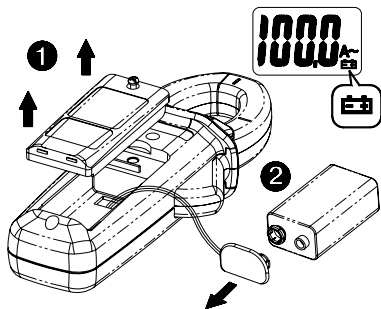
Maintenance not covered in this Instruction Manual should only be performed by qualified personnel. To maintain accuracy, this instrument should be calibrated at least yearly, or if it is suspected of being inaccurate.

Repairs should only be performed by qualified personnel. For maintenance, repair and calibration, contact your local distributor or RS Components; the address is given at the end of these instructions.

### ***Battery Replacement***

When the low-battery indicator “□” appears in the display, there is not sufficient power in the battery to perform an accurate measurement. Replace the battery as follows:

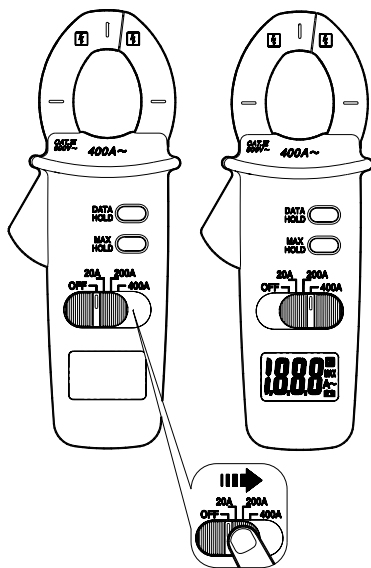
# **Caution:** Remove the instrument from around any conductor before removing the battery compartment cover. Do not attempt to take measurements with the battery compartment cover removed.



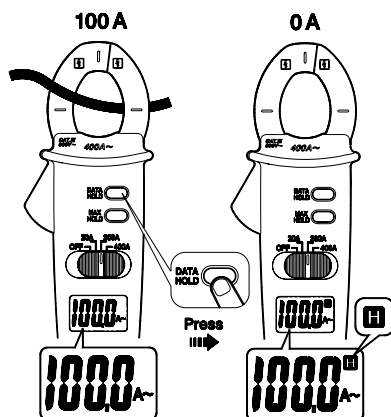
1. Turn the instrument off.
2. Use a screwdriver to loosen the screw from the battery compartment cover.
3. Remove the battery compartment cover. Retain the cover and screw.
4. Remove the exhausted battery from the battery compartment.
5. Fit a new battery into the instrument observing correct polarity.

6. Refit the battery compartment cover and secure with the screw.
7. Turn the instrument on and check for correct operation.
8. Dispose of the exhausted battery in accordance with local regulations.

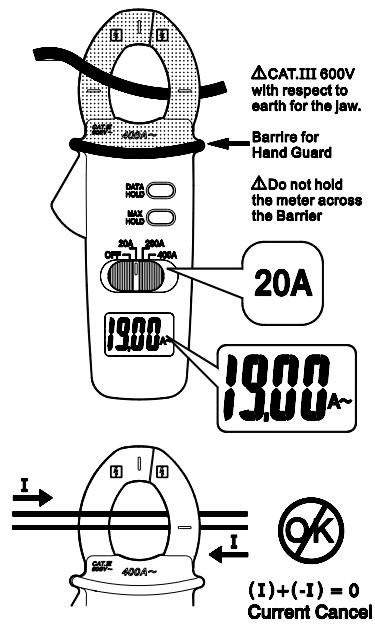
### Power On / Off



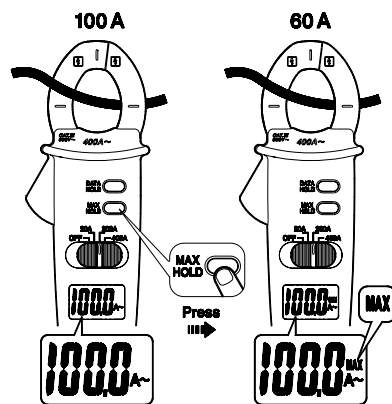
### Data Hold



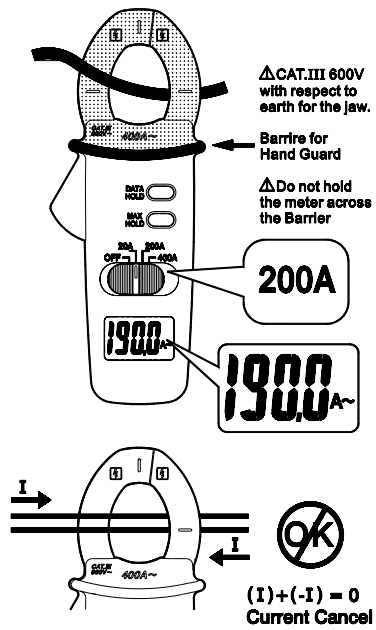
## ACA 20A



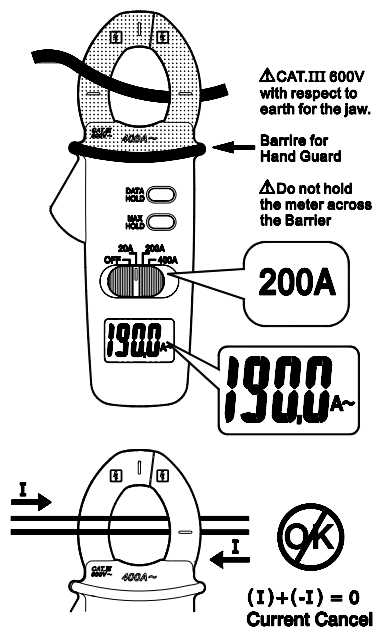
## MAX Hold



## ACA 200A



## ACA 400A



## **Specifications**

### **1-1 General Specifications**

**LCD display digits:**

2000 digit large-scale Liquid Crystal Display.

**Measuring rate:** 2.5 times/sec.

**Overrange indication:**

“OL” is displayed for “20A” and “200A” range, the actual value is displayed if greater than “400A” range.

**Low battery indication:** “□” is displayed

**Power requirement:** 9V battery.

**Battery type and life:** ALKALINE PP3 type 6LR61 or equivalent; 9V 580 hours typical.

### **1-2 Environmental Conditions**

**Indoor Use Only.**

**Operating temperature and humidity (Non-condensating):**

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).

**Operating altitude:** 2000m (6562 ft) maximum

**Overvoltage category (Measurement Category):**

IEC 61010-1:2001 and IEC 61010-2-032:2002; 600V CAT. III, Pollution Degree 2.

**Measurement Category III** is for measurements performed in the building installation. Examples include measurements on distribution boards, junction boxes, socket-outlets and wiring and cables in the fixed installation.

**Conductor Size:** 27mm diameter maximum.

**EMC:** EN 61326-1

**Shock and vibration:**

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

**Dimensions (W x H x D):** 56mm x 180mm x 32mm  
**Weight:** 250g including battery.  
**Accessories:** Battery, Carrying case and Instruction Manual.

### **1-3 Electrical Specifications**

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

**Temperature coefficient:**

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

### **AC Current**

Function	Range	Accuracy
A% (50~60Hz)	0 ~19.99A	$\pm(3.0\% + 0.05 \text{ A})$
	20.00~199.9A	$\pm(2.0\% + 0.5 \text{ A})$
	200~400A	$\pm(2.0\% + 5 \text{ A})$

### **Limited Warranty**

This instrument is warranted to the original purchaser against defects in material and workmanship for 3 year from the date of purchase. During this warranty period, RS Components 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 from 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. RS Components 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.

For full terms and conditions, refer to the current RS Catalogue.

### **United Kingdom:**

RS Components UK

PO Box 99, Corby,

Northants.,

NN17 9RS

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Fax: 01536 405678

<http://rswww.com>

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Telefon: 06105/401-0

Fax: 06105/401-100

<http://www.rsonline.de>

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España

Tel: (34) 902 10 07 11

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