



INSTRUCTIONS FOR:
MINI AC/DC CLAMP METER
MODEL No:MM405

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

! IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.

1. SAFETY INSTRUCTIONS

1.1. PERSONAL PRECAUTIONS

- ✓ When using this meter, please observe all normal safety rules concerning:
 - Protection against the dangers of electric current.
 - Protection of the meter against misuse.

1.2. GENERAL SAFETY INSTRUCTIONS

- ✓ Familiarise yourself with the applications, limitations and hazards of the meter. **IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN.**
- ✓ Always be careful when working with voltages above 35Vdc or 25Vac rms. **These voltages are considered a shock hazard.**
- ✓ When not in use, store the meter carefully in a safe, dry, childproof location. Storage temperature range -30°C to 6 0°C.
- ✓ Never apply voltage or current to the meter that exceeds the specified maximum.

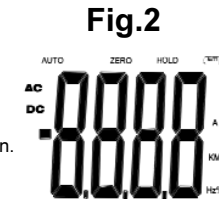
Input Limits	
Function	Maximum Input
AC Current	200A
DC Current	± 200A
Frequency	1kHz

2. FEATURES

Durable composite housing with rubber grip around handle for comfort and control. Designed to verify the presence of AC and DC current and with non-contact voltage detection, with flashlight and non-contact frequency measurement. Perfect for the automotive electrician. Features a backlit LCD display and an LED light at the front of the unit for working in dark areas. Comes complete with carry case.

Layout: (Refer to fig. 1.)

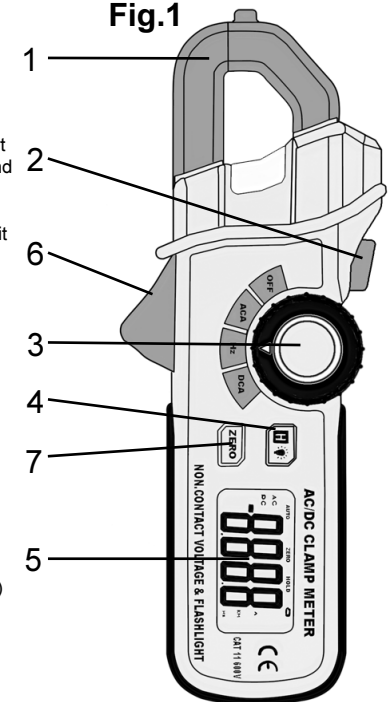
1. Current clamp.
2. Flash light button.
3. Rotary function switch.
4. Data hold and backlight button.
5. LCD display.
6. Clamp trigger.
7. Zero button.



Display: (Refer to fig. 2.)

- AC DC ----- AC (alternating current) and DC (direct current)
- ----- Minus sign.
- 0000 ----- 2400 count (0 to 2400) measurement reading
- AUTO ----- AutoRange mode.
- HOLD ----- Data Hold mode.
- BAT ----- Low Battery icon.
- Hz% ----- Frequency measurement.

Fig.1



3. SPECIFICATION

Function	Range	Resolution	Accuracy
AC Current	0~200A	0.1A	± (3.0% reading + 8 digits)
DC Current	0~ ±200A	0.1A	± (2.8% reading + 8 digits)
Frequency (Auto-ranging)	40~51Hz	0.01Hz	± (1.2% reading + 5 digits) Input sensitivity: 2.5A AC RMS min.
	51~510z	0.1Hz	
	0.51~1kHz	0.001kHz	

Clamp sizeOpening 18mm approx.
Low Battery Indication“BAT” is displayed.
Overrange Indication“OL” is displayed.
Measurements Rate2 per second, nominal.
Display3-2/3 digits (2400 counts) LCD.
AC Current bandwidth50/60Hz (AAC).
Operating Temperature14 - 122°F (-10-50°C).
Storage Temperature-14 - 140°F (-30 - 60°C).
Relative Humidity90% (0° - 30°C), 75% (30° - 40°C), 45% (40° - 50°C).
AltitudeOperating: 3000m, storage 10,000m.
Over VoltageCategory II 600V.
BatteryTwo 1.5V “AAA” Batteries.
Auto OFFAprox. 7 minutes.
Dimensions/Weight164x65x32mm/175g.
SafetyFor indoor use and in accordance with Overvoltage Category II, Pollution Degree 2. Category II includes local level, appliance, portable equipment, etc, with transient overvoltage less than Overvoltage Category II.

4. OPERATION

WARNING! Read and understand all warnings and precaution statements listed in the safety section of this operation manual prior to using this meter. Set the function select switch to OFF position when meter not in use.

4.1 AC Current Measurements.

- 4.1.1 Set the Function switch to the ACA range.
 4.1.2 Press the trigger to open the jaw. Fully enclose one conductor (fig.3) to be measured.
 4.1.3 The clamp meter LCD will display the reading.
NOTE: DO NOT enclose more than one conductor at any time (fig.4).

4.2 DC Current Measurements.

- 4.2.1 Set the Function switch to the DCA range.
 4.2.2 Press the trigger to open the jaw. Fully enclose one conductor (fig.3) to be measured.
 4.2.3 Press the Zero button to zero the meter in the DCA mode only.
 4.2.4 The clamp meter LCD will display the reading.
NOTE: DO NOT enclose more than one conductor at any time (fig.4).

4.3 Frequency Measurements.

- 4.3.1 Set the rotary function switch to the “Hz” position.
 4.3.2 Press the trigger to open the jaws. Fully enclose one conductor (fig.3) to be measured.
 4.3.3 Read the frequency on the display.
NOTE: DO NOT enclose more than one conductor at any time (fig.4).

4.4 Data Hold.

- 4.4.1 To freeze the LCD meter reading, press the data hold button. While data hold is active, the HOLD display icon appears on the LCD. Press the data hold button again to return to normal operation.
NOTE: The HOLD feature will activate when the Backlight is turned on. Press the hold key again to exit hold.

4.5 Backlight.

- 4.5.1 The backlight function illuminates the display and is used when the ambient light is low to permit viewing of the displayed reading.

4.6 Zero Button.

- 4.6.1 For DCA Zero & Offset adjustment.

4.7 Voltage Detection.

- 4.7.1 Intended to check for the presence of AC voltage, signalling the user with RED LIGHT illuminating between the clamp jaws.

WARNING! *The voltage detector is intended to check for the presence of AC voltage, not to prove that a power circuit is dead.*

4.8 Flash Light.

- 4.8.1 Press and hold the red button on the upper side of the meter, this will light the lamp near the clamp and provide illumination on the work subject.
 4.8.2 Release the button and the light will turn off.

4.9 Battery Replacement

- 4.9.1 Remove the philips screw from the battery cover on the rear of the clamp meter.
 4.9.2 Open the battery compartment.
 4.9.3 Replace the two AAA batteries (UM4 RO3).
 4.9.4 Re-assemble the meter.

Fig.3

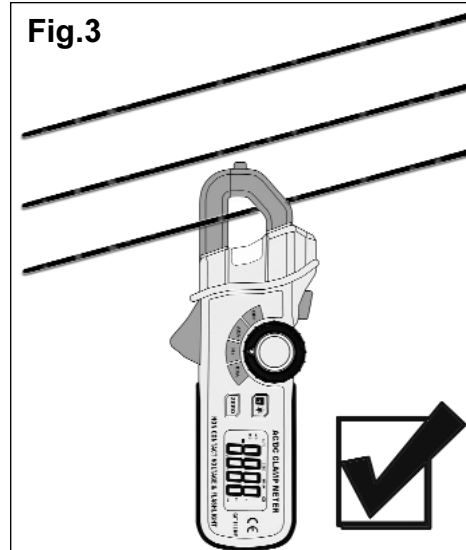
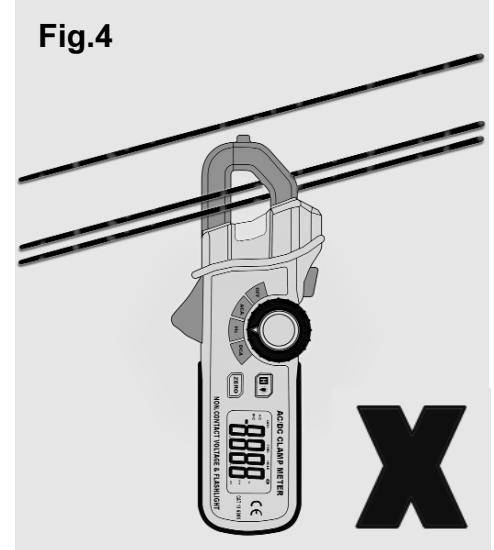



Fig.4



5. DECLARATION OF CONFORMITY

Declaration of Conformity We, the sole UK importer, declare that the product listed below is in conformity with the following standards and directives.



MINI AC/DC CLAMP METER
 Model: MM405
 89/336/EEC EMC Directive
 93/68/EEC CE Marking Directive

CE The construction file for this product is held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.
 Signed by Mark Sweetman  22nd April 2005
 For Jack Sealey Ltd. Sole UK importer of Sealey Professional Tools.

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.
IMPORTANT: No liability is accepted for incorrect use of this equipment.
WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.
INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



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