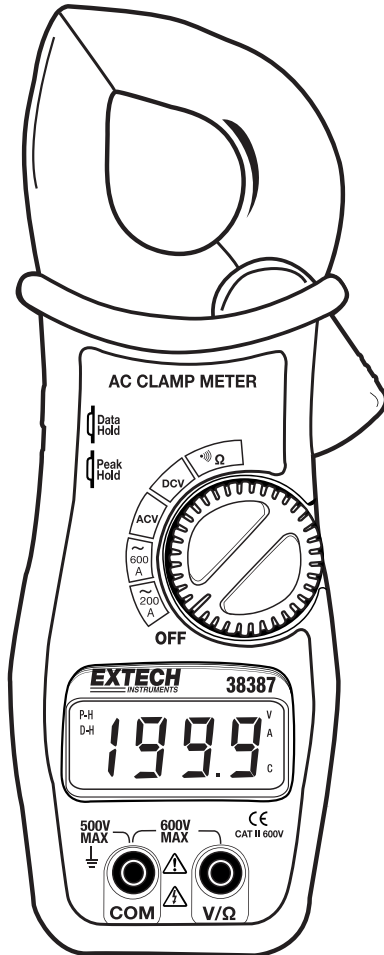


# User's Guide

**EXTECH**<sup>®</sup>  
INSTRUMENTS  
A FLIR COMPANY

## 600A AC Clamp Meter

### Model 38387



## Safety

---

### International Safety Symbols



This symbol, adjacent to another symbol or terminal, indicates the user must refer to the manual for further information.



This symbol, adjacent to a terminal, indicates that, under normal use, hazardous voltages may be present



Double insulation

**A UL mark does not indicate that this product has been evaluated for the accuracy of its readings.**

### SAFETY NOTES

- Do not exceed the maximum allowable input range of any function
- Do not apply voltage to meter when resistance function is selected.
- Set the function switch OFF when the meter is not in use.
- Remove the battery if meter is to be stored for longer than 60 days.

### WARNINGS

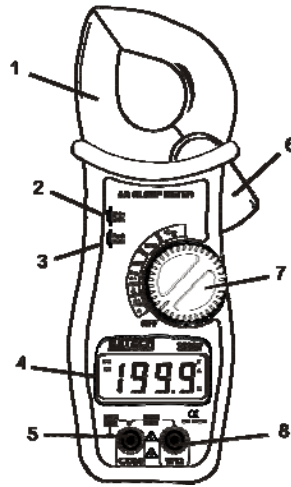
- Set function switch to the appropriate position before measuring.
- When measuring volts do not switch to current/resistance modes.
- Do not measure current on a circuit whose voltage exceeds 240V.
- When changing ranges using the selector switch always disconnect the test leads from the circuit under test.
- Do not exceed the maximum rated input limits.

### CAUTIONS

- Improper use of this meter can cause damage, shock, injury or death. Read and understand this user manual before operating the meter.
- Always remove the test leads before replacing the battery or fuses.
- Inspect the condition of the test leads and the meter itself for any damage before operating the meter. Repair or replace any damage before use.
- Use great care when making measurements if the voltages are greater than 25VAC rms or 35VDC. These voltages are considered a shock hazard.
- Remove the battery if the meter is to be stored for long periods.
- Always discharge capacitors and remove power from the device under test before performing Diode, Resistance or Continuity tests.
- Voltage checks on electrical outlets can be difficult and misleading because of the uncertainty of connection to the recessed electrical contacts. Other means should be used to ensure that the terminals are not "live".
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

## Description

1. Transformer jaws
2. Data Hold button
3. Peak Hold button
4. LCD Display
5. COM Input Terminal
6. Jaw opening trigger
7. Function select switch
8. Voltage, Resistance Input Terminal



## Specifications

Function	Range and Resolution	Accuracy (of reading)
AC Current	199.9 ACA	± (1.5% + 4 digits) @ 50/60Hz
	600 ACA	
AC Voltage	600 VAC	
DC Voltage	600 VDC	± (1.0% + 1 digits)
Resistance	1999 Ω	± (1.0% + 2 digits)

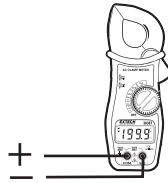
<b>Jaw size</b>	Opening 1.3" (33mm) approx.
<b>Display</b>	3-1/2 digits (2000 counts) LCD
<b>Continuity</b>	Audible tone < 40Ω approx.
<b>AC bandwidth</b>	40Hz to 400Hz
<b>Safety compliance</b>	IEC 1010-1 and VDE 0411
<b>Operating Temperature</b>	32 to 122°F (0 to 50°C)
<b>Storage Temperature</b>	-4 to 140°F (-20 to 60°C)
<b>Over voltage</b>	Cat II 600V
<b>Overload protection</b>	250V AC/DC Spark Gap protection; PTC protection for Ω range to 250V
<b>Battery</b>	9V battery (IEC 6F22)
<b>Auto Power OFF</b>	After 10 minutes of inactivity
<b>Dimensions/Weight</b>	8x3.2x1.7" (204x80x43mm)/0.62 lbs. (281g)
<b>Safety</b>	For indoor use and in accordance with Overvoltage Category II, Pollution Degree 2. Category II includes local level, appliance, portable equipment, etc., with transient overvoltages less than Overvoltage Cat. III.

## Operation

**NOTICES:** Read and understand all **warning** and **precaution** statements listed in the safety section of this operation manual prior to using this meter. Set the function select switch to the OFF position when the meter is not in use.

### AC/DC Voltage Measurements

1. Insert the black test lead into the negative **COM** terminal and the red test lead into the positive **V** terminal.
2. Set the function switch to the AC or DC voltage range position (ACV or DCV).
3. Connect the test leads in parallel to the circuit under test.
4. Read the voltage measurement on the LCD display.



### AC Current Measurements

**WARNING:** Ensure that the test leads are disconnected from the meter before making current clamp measurements.

1. Set the Function switch to the **600 or 200A** range. If the range of the measured is not known, select the higher range first then move to the lower range if necessary.
2. Press the trigger to open jaw. Fully enclose one conductor to be measured.
3. The clamp meter LCD will display the reading.



### Resistance and Continuity Measurements

1. Insert the black test lead into the negative **COM** terminal and the red test lead into the  **$\Omega$**  terminal.
2. Set the function switch to the  **$\Omega$  (•))** position.
3. Touch the test probe tips across the circuit or component under test. It is best to disconnect one side of the device under test so the rest of the circuit will not interfere with the resistance reading.
4. For Resistance tests, read the resistance on the LCD display.
5. For Continuity tests, if the resistance is  $< 40\Omega$ , a tone will sound.

### Data Hold

To freeze the LCD meter reading, press the data hold button. The data hold button is located on the left side of the meter (top button). While data hold is active, the **DH** display icon appears on the LCD. Press the data hold button again to return to normal operation.

### Peak Hold

To hold the highest reading on the LCD, press the peak hold button. The peak hold button is located on the left side of the meter (bottom button). The meter reading will not change as readings change, rather it will only display the highest reading encountered since the peak hold button was pressed. Press the peak hold button again to return to normal operation.

## Maintenance

**WARNING:** To avoid electrical shock, disconnect the meter from any circuit, remove the test leads from the input terminals and turn OFF the meter before opening the case. Do not operate with open case.

### Cleaning and Storage

Periodically wipe the case with a damp cloth and mild detergent; do not use abrasives or solvents. If the meter is not to be used for periods of longer than 60 days, remove the battery and store it separately

### Battery Replacement

1. Remove the three rear Phillips head screws
2. Open the battery compartment
3. Replace the 9V battery
4. Re-assemble the meter

## Warranty

**EXTECH INSTRUMENTS CORPORATION** (A FLIR COMPANY) warrants this instrument to be free of defects in parts and workmanship for **one year** from date of shipment (a six month limited warranty applies to sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 ext. 210 for authorization or visit our website [www.extech.com](http://www.extech.com) for contact information. A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

## Calibration and Repair Services

Extech offers repair and calibration services for the products we sell. Extech also provides NIST certification for most products. Call the Customer Care Department for information on calibration services available for this product. Extech recommends that annual calibrations be performed to verify meter performance and accuracy.



### Support line (781) 890-7440

Technical Support: Extension 200; E-mail: [support@extech.com](mailto:support@extech.com)

Repair & Returns: Extension 210; E-mail: [repair@extech.com](mailto:repair@extech.com)

#### Product specifications subject to change without notice

For the latest version of this User Guide, Software updates, and other up-to-the-minute product information, visit our website: [www.extech.com](http://www.extech.com)  
Extech Instruments Corporation, 285 Bear Hill Road, Waltham, MA 02451

**Copyright © 2008 Extech Instruments Corporation (a FLIR company)**

All rights reserved including the right of reproduction in whole or in part in any form.

