Fluke 337A

Fluke 337A True RMS AC/DC Digital Clamp Meter User Manual

Model: 337A | Brand: Fluke

1. Overview

The Fluke 337A is a robust True RMS AC/DC Digital Clamp Meter designed for professional electrical measurements. It offers a wide range of capabilities including measuring AC/DC amps, AC/DC volts, ohms, and motor start-up current. Its ergonomic design allows for comfortable one-handed operation, and the large, backlit display ensures readability in various lighting conditions.

An image of the Fluke 337A True RMS AC/DC Digital Clamp Meter, showing its yellow body, red clamp jaws, rotary dial, and digital display. The display shows "600.0 AC".

2. Safety Information

Always adhere to safety precautions when operating electrical testing equipment. Failure to do so may result in injury or damage to the meter or equipment under test.

- Ensure the meter is in good working condition before use.
- Do not use the meter if it appears damaged or if the test leads are compromised.
- Always disconnect power to the circuit before making connections for resistance or continuity measurements.
- Use appropriate personal protective equipment (PPE) such as safety glasses and insulated gloves.
- Do not exceed the maximum input ratings for any function.
- Avoid working alone in hazardous electrical environments.

3. Product Features

The Fluke 337A is equipped with several features to enhance its utility and accuracy:

- **True-RMS Measurement:** Provides accurate readings on non-linear loads.
- **MIN/MAX Capability:** Records minimum and maximum readings over a period.
- **Extra Large Jaw:** Accommodates larger conductors for current measurements.
- **Measurement Functions:** Measures AC/DC amps, AC/DC volts, and ohms.
- **Motor Start-up Current (In-rush):** Captures transient currents for motor analysis.
- **Large, Backlit Display:** Ensures clear visibility in dimly lit areas.
- **Display Hold:** Freezes the current reading on the display for convenient viewing.
- **Auto Shut-off:** Conserves battery life when the meter is not in use.
- **Improved Low Current Accuracy:** Enhanced performance for precise low current measurements.

4. Setup

4.1. Battery Installation

The Fluke 337A is powered by batteries. To install or replace batteries:

1. Ensure the meter is turned OFF.
2. Locate the battery compartment cover on the rear of the meter.
3. Use a screwdriver to loosen the screw(s) securing the cover.
4. Remove the cover and insert new batteries, observing correct polarity (+/-).
5. Replace the cover and tighten the screw(s) securely.

4.2. Initial Inspection

Before first use, inspect the meter for any signs of physical damage. Verify that the clamp jaws open and close smoothly and that the rotary switch clicks firmly into each position.

5. Operating Instructions

5.1. Turning the Meter On/Off

Rotate the central rotary switch from the "OFF" position to any desired measurement function to turn the meter ON. To turn OFF, rotate the switch back to the "OFF" position.

5.2. Measuring AC/DC Current (Amps)

1. Rotate the rotary switch to the **A~** (AC Amps) or **A=** (DC Amps) position.

2. Press the clamp opening lever to open the jaws.
3. Encircle a single conductor with the clamp jaws. Ensure the jaws are fully closed.
4. Read the current value on the display.

5.3. Measuring AC/DC Voltage (Volts)

1. Rotate the rotary switch to the **V~** (AC Volts) or **V=** (DC Volts) position.
2. Connect the test leads to the appropriate input jacks on the meter.
3. Connect the test lead probes across the circuit or component to be measured.
4. Read the voltage value on the display.

5.4. Measuring Resistance (Ohms)

1. Rotate the rotary switch to the **Ω** (Ohms) position.
2. Ensure the circuit or component is de-energized before connecting the test leads.
3. Connect the test lead probes across the component to be measured.
4. Read the resistance value on the display.

5.5. Using In-rush Current Function

The in-rush function is used to measure the starting current of motors or other inductive loads.

1. Set the rotary switch to the AC Amps (**A~**) position.
2. Press the "In-rush" button (if available, or refer to specific button for this model).
3. Clamp the meter around the motor's power conductor.
4. Start the motor. The meter will capture and display the peak in-rush current.

5.6. Display Hold Function

Press the "HOLD" button to freeze the current reading on the display. Press it again to release and resume live readings.

6. Maintenance

6.1. Cleaning

Wipe the meter's case with a damp cloth and mild detergent. Do not use abrasives or solvents. Ensure the meter is dry before storage or use.

6.2. Battery Replacement

Refer to Section 4.1 for battery installation and replacement instructions. Replace batteries when the low battery indicator appears on the display to ensure accurate measurements.

6.3. Calibration

For optimal accuracy, periodic calibration by a qualified service center is recommended. Refer to Fluke's official support channels for calibration services.

7. Troubleshooting

This section addresses common issues you might encounter with your Fluke 337A.

Problem	Possible Cause	Solution
Meter does not turn on.	Dead or incorrectly installed batteries.	Replace batteries, ensuring correct polarity.
Inaccurate readings.	Low battery, incorrect function selected, external interference, or meter needs calibration.	Replace batteries, verify function setting, move away from strong magnetic fields, consider professional calibration.
Display shows "OL" (Overload).	Measurement exceeds meter's range.	Select a higher range if available, or ensure the measured value is within the meter's specifications.
Clamp jaws do not close properly.	Obstruction or damage to the jaw mechanism.	Inspect for debris; if damaged, do not use and seek professional repair.

8. Specifications

Key technical specifications for the Fluke 337A True RMS AC/DC Digital Clamp Meter:

Parameter	Value
Model Number	337A
Brand	Fluke
Measurement Type	True RMS
Current Measurement	AC/DC Amps (up to 1000A)
Voltage Measurement	AC/DC Volts
Resistance Measurement	Ohms
Special Functions	MIN/MAX, In-rush Current, Display Hold
Display	Large, Backlit
Power Source	Battery Powered
Auto Shut-off	Yes
Dimensions	11.7 x 4.5 x 2.8 inches
Weight	1.55 Pounds
Color	Yellow
Manufacturer	FLUKE NETWORKS
First Available Date	November 3, 2008

9. Warranty and Support

For information regarding warranty coverage, technical support, or service, please refer to the official Fluke website or

contact their authorized service centers. Keep your purchase receipt as proof of purchase for warranty claims.
Official Fluke Website: www.fluke.com