

## UNI-T UT256A

# UNI-T UT256A True RMS Fork Meter Instruction Manual

Comprehensive guide for safe and effective operation of your electrical tester.

## 1. INTRODUCTION

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The UNI-T UT256A is a true RMS fork meter designed for accurate electrical measurements. Its unique fork design allows for non-contact AC current measurement by simply positioning the wire within the fork opening. This meter is engineered for reliability and ease of use in various applications, including automotive and construction.

This manual provides essential information for the safe and proper operation, maintenance, and troubleshooting of your UT256A fork meter. Please read it thoroughly before use.

## 2. SAFETY INFORMATION

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Always adhere to basic safety precautions when using electrical testing equipment to prevent personal injury or damage to the meter or equipment under test.

- Do not exceed the maximum input values specified for each function.
- Exercise extreme caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Before measuring current, ensure the meter is set to the correct function and range.
- Inspect test leads for damaged insulation or exposed metal before use. Replace if damaged.
- Do not operate the meter if it appears damaged or if the case is open.
- Always disconnect power to the circuit before making connections for resistance or continuity tests.
- Use the meter only as specified in this manual; otherwise, the protection provided by the meter may be impaired.
- Keep fingers behind the finger guards on the test leads during measurements.

## 3. PACKAGE CONTENTS

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Verify that all items are present and undamaged upon unpacking:

- UNI-T UT256A True RMS Fork Meter
- Test Leads
- 1.5V Batteries (LR6) x 2
- Carrying Bag
- English User Manual (this document)

## 4. PRODUCT FEATURES

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The UT256A fork meter offers a range of features for efficient and safe electrical testing:

- **AC Current Measurement:** Designed for measuring AC current up to 200A without breaking the circuit.
- **Non-Contact Voltage (NCV):** Detects AC voltage without physical contact, enhancing safety.
- **True RMS:** Provides accurate readings for non-sinusoidal waveforms.
- **Auto Range:** Automatically selects the appropriate measurement range.
- **Data Hold:** Freezes the displayed reading for convenient recording.
- **Auto Power Off:** Conserves battery life by automatically shutting down after a period of inactivity.
- **Low Battery Indication:** Alerts the user when battery voltage drops below 2.4V.
- **LCD Backlight:** Ensures clear visibility of readings in dimly lit environments.
- **Continuity Buzzer:** Emits an audible tone for quick continuity checks.
- **Input Protection:** Safeguards the meter during operation.

## 5. SETUP

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### 5.1 Battery Installation

The UT256A requires two 1.5V LR6 (AA) batteries for operation.

1. Locate the battery compartment cover on the back of the meter.
2. Use a screwdriver to loosen the screw securing the cover.
3. Remove the cover.
4. Insert the two 1.5V LR6 batteries, observing the correct polarity (+ and -) as indicated inside the compartment.
5. Replace the battery compartment cover and tighten the screw.

*Note: Replace batteries when the low battery indicator appears on the display.*

### 5.2 Initial Inspection

Before each use, perform a visual inspection of the meter and test leads:

- Check for any cracks or damage to the meter casing.
- Inspect the test leads for frayed insulation, exposed metal, or damaged connectors.
- Ensure the fork opening is clear of debris.

## 6. OPERATING INSTRUCTIONS

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## 6.1 Meter Layout



**Figure 1:** Front view of the UNI-T UT256A True RMS Fork Meter, showing the display, function dial, and buttons.



**Figure 2:** Angled view of the UNI-T UT256A, highlighting the fork opening and side profile.

The meter features a large LCD display, a rotary function dial, and several control buttons for various functions.

## 6.2 Powering On/Off

Rotate the function dial from the "OFF" position to any desired measurement function to power on the meter. To power off, rotate the dial back to "OFF". The meter will automatically power off after approximately 15 minutes of inactivity to conserve battery life.

## 6.3 AC Current Measurement (Fork)

This meter allows for non-contact measurement of AC current up to 200A.

1. Rotate the function dial to the **A~** position.
2. Isolate the single conductor (wire) through which the AC current flows.
3. Position the single conductor within the fork opening, ensuring it passes through the center of the marked area.
4. Read the AC current value displayed on the LCD.

*Important: The fork meter measures current in a single conductor. Do not attempt to measure current in multiple conductors simultaneously, as this will result in an inaccurate reading (the magnetic fields will cancel each other out).*

## 6.4 Non-Contact Voltage (NCV) Measurement

The NCV function detects the presence of AC voltage without direct contact, providing a quick safety check.

1. Rotate the function dial to the **NCV** position.
2. Bring the tip of the fork meter close to the conductor or outlet you wish to test.
3. If AC voltage is detected, the meter will emit an audible beep and the NCV indicator light will illuminate. The intensity of the beeping and light may increase with stronger voltage fields.

## 6.5 Voltage Measurement (AC/DC)

To measure AC or DC voltage, use the provided test leads.

1. Insert the red test lead into the **VΩHz** input jack and the black test lead into the **COM** input jack.
2. Rotate the function dial to the **V~** for AC voltage or **V-** for DC voltage.
3. Connect the test probes across the circuit or component you wish to measure.
4. Read the voltage value displayed on the LCD.

## 6.6 Resistance and Continuity Measurement

To measure resistance or check for continuity, use the provided test leads.

1. Insert the red test lead into the **VΩHz** input jack and the black test lead into the **COM** input jack.
2. Rotate the function dial to the **Ω** position.
3. **For Resistance:** Disconnect power to the circuit. Connect the test probes across the component. Read the resistance value.
4. **For Continuity:** Disconnect power to the circuit. Connect the test probes across the circuit path. If continuity exists (low resistance), the meter will beep.

## 6.7 Data Hold Function

Press the **HOLD** button to freeze the current reading on the display. Press it again to release the hold function.

## 6.8 Backlight Function

Press the **LIGHT** button to turn on the LCD backlight. Press it again to turn it off. The backlight may automatically turn off after a short period to conserve battery.

# 7. MAINTENANCE

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## 7.1 Cleaning

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

## 7.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries as described in Section 5.1. Always use two new 1.5V LR6 (AA) batteries.

## 7.3 Storage

If the meter is not to be used for an extended period, remove the batteries to prevent leakage and damage. Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Meter does not power on.	Dead or incorrectly installed batteries.	Check battery polarity; replace batteries.
Inaccurate current reading.	Measuring multiple conductors; conductor not centered in fork.	Ensure only a single conductor is in the fork; center the conductor.
No NCV detection.	No AC voltage present; meter too far from source.	Verify AC voltage is present; bring meter closer to the source.
Display shows "OL" (Overload).	Measurement exceeds the meter's range.	Ensure the measurement is within the meter's specified range.

## 9. SPECIFICATIONS

Parameter	Value
Model	UT256A
AC Current Range	200A
Display Count	6000 Counts
Max Voltage Input	1000V
True RMS	Yes
NCV Measurement	Yes
Auto Range	Yes
Data Hold	Yes
Auto Power Off	Yes
Low Battery Indication	Yes
Power Source	2 x 1.5V LR6 (AA) Batteries
Dimensions	9.29 x 3.62 x 2.32 inches
Item Weight	8.75 Ounces
Manufacturer	UNI-T

## 10. WARRANTY AND SUPPORT

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For warranty information or technical support, please refer to the warranty card included with your product or contact UNI-T customer service. Contact details can typically be found on the manufacturer's official website or on the product packaging.

Please retain your purchase receipt as proof of purchase for warranty claims.