UNI-T UT256 60A AC/DC Fork Meter User Manual

UT256
60A AC/DC Fork Meter
User Manual
P/N: 110401110994X

Contents

Overview

UT256 is a safe and reliable dedicated AC/DC digital fork meter with stable performance (hereinafter referred to as clamp meter). The design of the fork-shaped clamp head enables the current measurement to be more convenient. With audible and visual alarm functions, the meter allows users to obtain test results more intuitively. Featuring fashion appearance, durable, and portable, UT256 has multiple functions such as backlight, REL, ZERO, and HOLD, which makes it an ideal measurement tool for users.

Accessories

Open the package box and take out the meter. Check the following items carefully to see any missing or damaged parts.

1. User Manual……1 piece
2. Lanyard……1 piece
3. Battery……..1 pair
4. Carrying bag……1 piece

Rules for Safe Operation

Please pay attention to the “Warning Signs and Sentences”. Warnings mean the situations and behaviors that endanger the user or cause losses to the meter or the equipment to be measured. The meter is designed in accordance with IEC/EN61010-1, 61010 -2-032 Safety Standard, and EN61326-1 Electromagnetic Compatibility, and complies with the safety standard of double insulation, over-voltage CAT Ill 600V, and pollution level 2, Indoor Use. If you fail to use the meter according to relevant operation instructions, the protection provided by the meter is likely to be weakened or undermined.

1. Prior to use, please check the clamp meter so as to prevent any damage or abnormality. If you find the insulating layer of the shell is damaged obviously, the display screen cannot work, etc., or you consider that the clamp meter cannot work well, please don’t use the clamp meter anymore.
2. It is strictly prohibited to use the clamp meter without the rear cover or battery cover, otherwise, a shock hazard may occur.
3. When carrying out the measurement, please be sure that your fingers should not exceed the shield and not touch the bare wire and connector, unused input terminal, or circuit under measurement, to prevent the electric shock.
4. Before measurement, the clamp meter must be switched to the correct tap position. It is prohibited to switch tap positions during measurement.
5. Do not measure the current higher than the allowable input.
6. When the symbol “o” is displayed on the LCD, it is necessary to replace the battery in a timely manner, so as to assure the measuring precision. Remove the battery if the meter is not used for a long time.
7. Please do not change the internal wiring of the clamp meter at random, to prevent meter damage and insecurity.
8. Do not keep or use the clamp meter in an environment with high-temperature, high-humidity, inflammable, explosive, or strong electromagnetic fields.
9. During maintenance, please clean the shell of the clamp meter with the soft cloth soaked with neutral detergent, and do not use the abrasive and solvent, so as to prevent shell corrosion, meter damage, and insecurity.
10. Before each use verify tester operation by measuring a known voltage that is within the rating of this unit.

Electrical Symbols

	Low battery		Conforms to UK standards
	AC		Conforms to EU standards
	DC		Double insulated
CAT III	Measurement category III is applicable to test and measure circuits connected to the distribution part of the building's low-voltage MAINS installation.		
	Conforms to UL STD 61010-1, 61010-2-032. CSA STD C22.2 NO.61010-1, 61010-2-032 certified.		
	Application around and removal from UNINSULATED HAZARDOUS LIVE conductors are permitted		

General Characteristics

- Display count: 600
- Polarity display: Auto
- Overload indicator: "OL" or "-OL"
- Low battery indication: The symbol " " appears to indicate the battery voltage is lower than the working voltage and it's time to replace the battery.
- The error of test position: Place the source to be measured at the measuring position of the clamp head when performing the current measurement, otherwise an error or incorrect reading will occur.
- Impact-resistant strength: With an accuracy guarantee of 1 meter, and with a function guarantee of 2 meters.
- Opening of the clamp head: 10.0mm
- Power supply: 2×1.5V AAA battery
- APO function: The meter will power off automatically if no button is pressed within 30 minutes. This function can be disabled as needed (Please refer to the instruction in "Other functions").
- Dimension: 171 mm*42mm*28mm
- Weight: About 120g (Batteries included)
- Altitude: 2000m
- Operating temperature and humidity: 0°C-30°C (<80%RH); 30°C-40°C (<75% RH); 40°C-50C (<45% RH)
- Storage temperature and humidity: -20°C-+60°C (<80% RH)
- EMC: For RF=1V/m, overall accuracy=specified accuracy+5% of range. Not specified for RF>1V/m.

Meter Structure

1. NCV sensing end.
2. Fork-shaped clamp head: A sensing device to measure AC current.
3. Finger guard: A safety design to prevent users from touching dangerous areas by hand.
4. Audible and visual alarm indicator.
5. LCD display screen: Display measurement data and functional symbols.
6. Functional buttons: Select and switch measurement functions and modes.

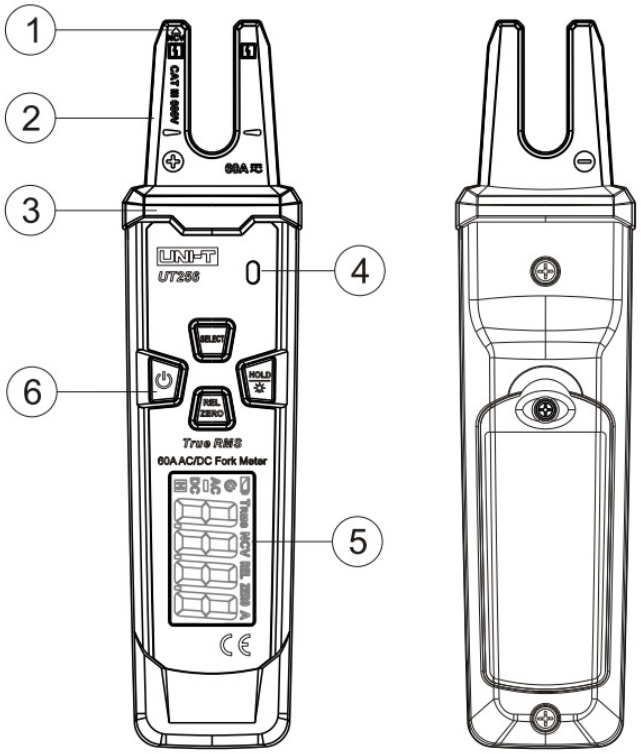

Figure 1

Display Symbols

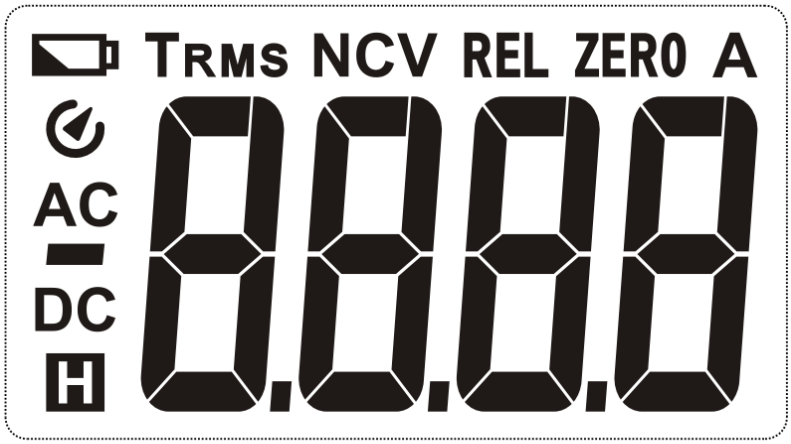

Figure 2

Symbols	Descriptions
	Data hold prompt
	Negative reading
	Low battery indication
AC/DC	Alternating/Direct current measurement prompt
A	Unit of current: Ampere
TRMS	True-RMS prompt
REL	Relative value prompt
ZERO	Zeroing prompt
	APO prompt
NCV	Non-contact voltage measurement

Button Functions

1. ⏻: Power on/off the meter. Long press power on, short press power off.
2. SELECT: Short press this button to switch between corresponding function ranges.
3. HOLD ☼: Data hold/backlight function buttons. Short press to enable /disable the data hold function, and the symbol "H" will show on the LCD. Long press about 2 seconds to enable/disable the backlight function.
4. REL ZERO: At ACA gear, short press to enable/disable the REL measurement function, and "REL" will show on the LCD. At DCA gear, short press to enable/disable zeroing function, and "ZERO" will show on the LCD.

Operating Instructions

1. AC/DC Current Measurement

- Press the SELECT button to select AC/DC current measurement.
- Clamp a single current lead to be tested and keep it at the bottom of the "U" clamp head.
- Read the measurement value from the LCD. Frequency response: 50Hz-60Hz.

Note:

- When carrying out current measurements, please be sure that your fingers should not exceed the finger guard.
- The maximum measured AC current shall not exceed 60A.

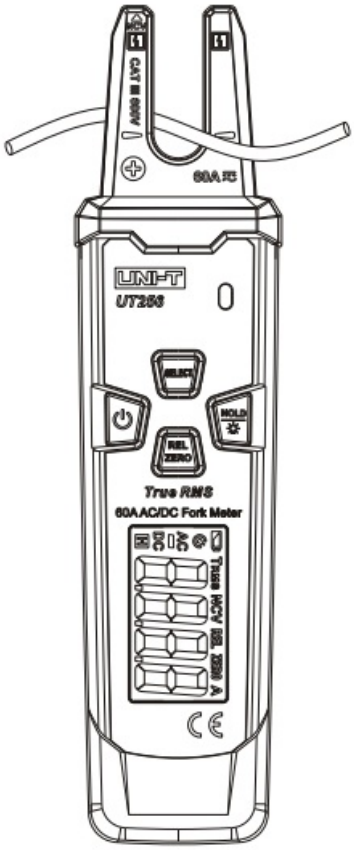

Figure 3

2. NCV Measurement

- Press the SELECT button to select the NCV measurement function.
- Make the NCV sensing end of the clamp head approach the live AC power cord closely. EF is displayed on the LCD, when voltage is detected, the red NCV indicator light will flash at a frequency of 3Hz and the meter will buzz at a frequency of 3Hz synchronously.

Figure 4

Note:

- If the distance between the sensing end and the measured AC power cord changes, the detected will also change.
- Induced voltage is for reference only. The frequency of induced voltage is applicable to 50Hz~60Hz.
- Before touching the measured conductor, please measure if the voltage is safe by electro probe or test probe to prevent electric shock.
- Grip the shell of the clamp meter by hand when performing NCV function measurement.
- 3. Other functions
- APO: The meter will power off automatically to save power if no button is pressed in 30 minutes during measurement. To restart the meter, long press the power button in APO status.
- Hold down the SELECT button and press the power button, the APO function will be disabled and the buzzer will beep 5 times (To enable the APO function, restart the meter after it is turned off).
- About 1 minute before the meter powers off automatically, the buzzer will beep 5 times to indicate that the meter will enter sleep mode. If the meter is not operated for 1 minute by the user, the meter will buzz for a long time once and then enter sleep mode.
- Warning buzzes:

  1) When selecting functions through the SELECT button, the meter will buzz once to indicate that position switching is done.

  2) When the button is pressed, the meter will buzz once to indicate the button is active, and twice to indicate inactively.
- When the LCD will show"  ", it indicates the user to replace the battery. Under low battery conditions, the

measuring functions may work, but the measurement accuracy may be affected, please replace the battery as soon as possible.

Technical Specifications

Accuracy: ±(a% reading + b digit), one-year warranty Ambient temperature and humidity: 23°C±5°C; <80%RH Temperature coefficient: The temperature condition of accuracy is 18°C~28°C, the fluctuation range of ambient temperature stabilizes within ±1 °C. If the temperature is 18°C or >28°C, the additional temperature coefficient error is 0.1 x (specified accuracy)/ °C.

1. AC/DC Current Measurement

Function	Range	Resolution	Accuracy
ACA	60.0A	0.1A	(1.0A, 3.0A) : ± (2%+10) (3.0A, 60.0A) : ± (2%+5)
DCA	60.0A	0.1A	(1.0A, 3.0A): ± (2%+10) (3.0A, 60.0A) : ± (2%+5)

Note:

- Accuracy guarantee range: 1A~60A
- The frequency response of current: 50Hz~60Hz

Maintenance and Repair

⚠ **warning:**
Before opening the battery cover of the meter to replace the battery, please be sure that the meter is disconnected and far away from the measured object.

1. **General Maintenance**
   1) Clean the meter casing with a soft cloth and mild detergent. Do not use abrasives or solvents.
   2) If the meter is found abnormal, stop use and send for repair.
   3) The maintenance and service must be implemented by qualified professionals or designated departments.
2. **Battery Replacement**
   When the low battery symbol “  ” appears on the LCD, please replace the batteries immediately to ensure measurement accuracy. Battery specification: 21.5 V AAA.

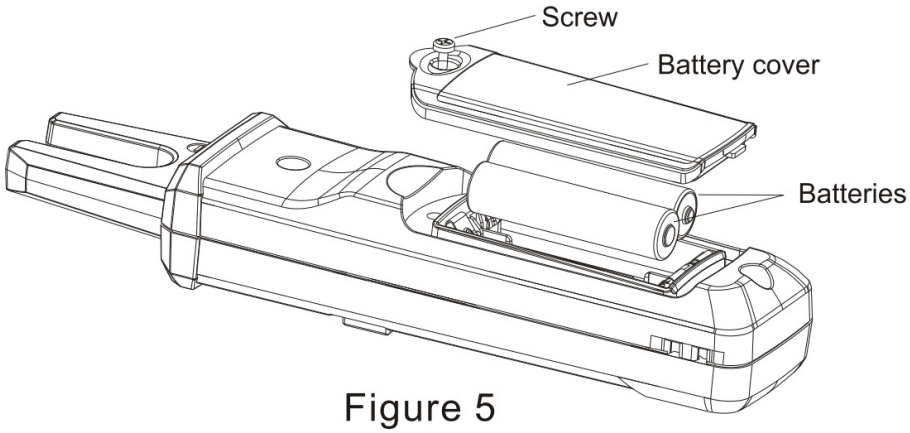

Figure 5

Operating steps:
1) Set the power switch at the “OFF” position.
2) Loosen and remove the screw of the rear cover with a screwdriver, remove the battery cover, and take out the old batteries as figure 5.
3) Replace with two pieces of new batteries (1.5 V AAA).

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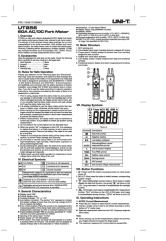
Documents / Resources

	UNI-T UT256 60A AC/DC Fork Meter [pdf] User Manual UT256, 60A AC Fork Meter, 60A DC Fork Meter
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