



INSTRUCTION MANUAL

MT26

600V AC/DC BLUETOOTH MULTIMETER



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1. INTRODUCTION

The MT26 is a CAT III 600V True RMS compact multimeter offering measurements of AC and DC voltage, AC and DC current, frequency, capacitance, resistance and temperature. The meter has a large 4000 count backlit LCD with the added advantage of an analogue bar graph. The Low Z function has a low pass filter to eliminate errors caused by "Ghost" voltages. There is a built-in LED flashlight for dimly lit areas and a tilt stand. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organising and sharing recordings. The meter has a double moulded rubber case with IP67 waterproof and dustproof rating.


WARNINGS

- Read, understand and follow Safety Rules and Operating Instructions in this manual before using this meter.
- The meter's safety features may not protect the user if not used in accordance with the manufacturer's instructions.
- Ensure that the test leads are fully seated in the input jacks and keep fingers away from the metal probe tips when taking measurements.
- Before changing functions using the selector switch, always disconnect the test leads from the circuit under test.
- Use only UL listed test leads with the proper safety category rating.
- Comply with all applicable safety codes. Use approved personal protective equipment when working near live electrical circuits—particularly with regard to arc-flash potential.
- Use caution on live circuits. Voltages above 30V AC RMS, 42V AC peak, or 60V DC pose a shock hazard.
- Do not use if the meter or test leads appear damaged.
- Verify operation before using meter by measuring a known live voltage.
- Do not use the meter in wet or damp environments or during electrical storms.
- Do not use the meter or near explosive vapors, dust or gasses.
- Do not use the meter if it operates incorrectly. Protection may be compromised.
- Do not operate meter while Low Battery warning is on. Replace batteries immediately.
- Do not apply voltage or current that exceeds the meter's maximum rated input limits.

1.1. INPUT LIMITS

Function	Maximum Input
Voltage AC or DC	600V AC RMS/600V DC
LowZ	300V AC RMS/300V DC
Current AC or DC	10A 600V fast acting fuse (10A for 30 seconds max. every 15 minutes)
Resistance, Continuity, Diode Test, Capacitance, Frequency, Duty Cycle	600V AC RMS/600V DC
Temperature	300V AC RMS or 300V DC

1.2. GENERAL SPECIFICATIONS

Function	Range
Insulation	Class 2, Double Insulation
Enclosure	Double Molded, IP67 waterproof and dust-proof
Diode Test	Test current 1.5mA max., open circuit voltage 3V typical
Continuity Test	Audible signal if the resistance is approx. 50 Ω or less
Low Battery Indication	"  " is displayed
Display	4000 count LCD display
Over Range Indication	"OL": is displayed
Polarity	Minus symbol "-" is displayed for negative polarity
Measurement Rate	2 readings per second, nominal
Auto Power Off	After approx. 15 minutes of inactivity
Input Impedance	10M Ω AC/DC Voltage
AC Response	True RMS
AC Bandwidth	50 to 400Hz
Batteries	Three "AAA" 1.5V batteries
Fuse	10A/600V (5 x 20mm) fast blow
Operating Environment	0°C to 40°C (32°F to 104°F) <70% relative humidity
Storage Environment	-10°C to 60°C (14°F to 140°F) <80% relative humidity
Operating Altitude	2000 meters maximum
Dimensions/Weight	147 x 68 x 50mm/318g
Safety	Complies with UL 61010-1 V.3 for measurement Category III 600V, Pollution Degree 2

1.3. INTERNATIONAL SAFETY SYMBOLS

WARNING Potential danger. Indicates the user must refer to the manual for important safety information.



Indicates hazardous voltages may be present.



Equipment is protected by double or reinforced insulation.



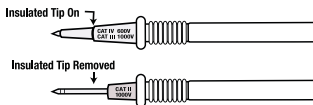
Indicates the terminal(s) so marked must not be connected to a circuit where the voltage with respect to earth ground exceeds the maximum safety rating of the meter.

2. SAFETY CATEGORY RATINGS

Category Rating	Brief Description	Typical Applications
Cat II	Single phase receptacles and connected loads	Household appliances, power tools Outlets more than 10m (30ft) from a Cat III source Outlets more than 20m (60ft) from a Cat IV source
Cat III	Three phase circuits and single phase lighting circuits in commercial buildings	Equipment in fixed installations such as 3-phase motors, switchgear and distribution panels Lighting circuits in commercial buildings Feeder lines in industrial plants Any device or branch circuit that is close to a Cat III source

The measurement category (CAT) rating and voltage rating is determined by a combination of the meter, test probes and any accessories connected to the meter and test probes. The combination rating is the LOWEST of any individual component.

WARNING: Operation is limited to CAT II applications when the insulated tips are removed from one or both test probes. Refer to Input Limits section in this manual for maximum voltage ratings.



2.1. MAINTENANCE

This Multimeter is designed to provide years of dependable service, if the following care instructions are performed:

1. **KEEP THE METER DRY.** If it gets wet, wipe it until it is dry.
2. **USE AND STORE THE METER IN NORMAL TEMPERATURES.**
Temperature extremes can shorten the life of the electronic parts and distort or melt plastic parts.
3. **HANDLE THE METER GENTLY AND CAREFULLY.** Dropping it can damage the electronic parts or the case.
4. **KEEP THE METER CLEAN.** Wipe the case occasionally with a damp cloth. **DO NOT** use chemicals, cleaning solvents, or detergents.
5. **USE ONLY FRESH BATTERIES OF THE RECOMMENDED SIZE AND TYPE.**
Remove old or weak batteries so they do not leak and damage the unit.
6. **IF THE METER IS TO BE STORED FOR A LONG PERIOD OF TIME,** the batteries should be removed to prevent damage to the unit.

3. OPERATION

3.1. AUTO POWER OFF

The meter automatically turns off after 15 minutes of inactivity. To reset the meter after it shuts off, turn rotary function switch to the off position and then set the switch to the desired function. To disable Auto Power Off, turn the rotary function switch to the off position. Press and hold the MODE button and set the rotary function switch to the desired function. Release the MODE button when the "⏻" symbol on the LCD display disappears. Auto Power Off is now disabled. Auto Power Off will be restored when the meter is turned off and back on again.

3.2. MODE Button









Used to select AC or DC voltage, Hz or % Duty Cycle, Ohms, Diode Test, Continuity or Capacitance, and °F or °C.

3.3. MAX MIN Button





1. Press the MAX/MIN button to activate the MAX/MIN mode. The "MAX" indicator will appear on the LCD display. The meter will display and hold the maximum reading and will update when a higher "max" occurs.
2. Press the MAX/MIN button again to view the lowest reading. The "MIN" indicator meter will appear on the LCD display. The meter will display and hold the minimum reading and will update when a lower "min" occurs.
3. Press and hold the MAX/MIN button to end MAX/MIN and return to normal operation.

NOTE: MAX/MIN does not work on Frequency, Duty Cycle, Diode Test, Continuity and Capacitance.

3.4. FLASHLIGHT/BLUETOOTH BUTTON


Momentarily press the   button to turn the flashlight on and off. Bluetooth allows readings to be displayed and stored on mobile devices. To activate Bluetooth, press and hold the   button until the " " symbol appears on the LCD display. Bluetooth should be disabled when not connected to a mobile device in order to conserve battery power. To turn off Bluetooth, press and hold the   button until the " " symbol no longer appears on the display. Visit Google play and iOS App Store to download "Meterbox Pro" for mobile devices.

3.5. HOLD/BACKLIGHT BUTTON

To freeze the reading on the display, press the HOLD  button. "HOLD" will appear on the LCD display while the reading is being held. Press the HOLD  button again to return to normal operation. The backlight illuminates the LCD display when the ambient light is too low to view the displayed readings. To turn on, press and hold the HOLD  button until the backlight turns on. To turn off, press and hold the HOLD  button until the backlight turns off.

4. AC/DC VOLTAGE MEASUREMENTS

WARNING: Observe all safety precautions when working on live voltages.

1. Set the rotary function switch to the V  position.
2. To select AC or DC voltage, press the MODE button until the AC "~" or DC "—" symbol appears on the LCD display.
3. Insert the black test lead into the COM input jack and the red test lead into the V input jack.
4. Touch the test lead probes to the circuit under test. If measuring DC voltage, touch the red test lead to the positive side of the circuit and the black test lead to the negative side of the circuit.
5. Read the voltage on the LCD display.



4.1. LOW Z AC/DC VOLTAGE MEASUREMENTS

WARNING: Observe all safety precautions when working on live voltages. Do not connect to circuits that exceed 300V AC RMS or 300V DC when the meter is set to Low Z.

Low Z is used to check for "ghost" voltage. Ghost voltages are present when non-powered wires are in close proximity to powered wires. Capacitive coupling makes it appear that non-powered wires are connected to a real source of voltage. The Low Z setting places a load on the circuit, which greatly reduces the voltage reading when connected to ghost voltage.

1. Set the rotary function switch to the Low Z position.
2. To select AC or DC voltage, press the MODE button until the AC "~" or DC "—" symbol appears on the LCD display.
3. Insert the black test lead into the COM input jack and the red test lead into the V input jack.
4. Touch the test leads to the circuit under test. If measuring DC voltage, touch the red test lead to the positive side of the circuit and the black test lead to the negative side of the circuit.
5. Read the voltage on the LCD display.



4.2. AC CURRENT MEASUREMENTS

WARNINGS: Observe all safety precautions when working on live circuits. Do not measure current on circuits that exceed 600V. Measurements in the 10A range should be limited to 30 seconds maximum every 15 minutes.

1. Set the rotary function switch to the 10A position.
2. Insert the black test lead into the COM input jack and the red test lead into the 10A input jack.
3. Remove power from the circuit under test, then open up the circuit at the point where you wish to measure current.
4. Touch the test lead probes in series with the circuit being measured.
5. Apply power to the circuit.
6. Read the current on the LCD display.



4.3. DC CURRENT MEASUREMENTS

WARNINGS: Observe all safety precautions when working on live circuits. Do not measure current on circuits that exceed 600V. Measurements in the 10A range should be limited to 30 seconds maximum every 15 minutes.

1. Set the rotary function switch to the 10A position.
2. Insert the black test lead into the COM input jack and the red test lead into the 10A input jack.
3. Remove power from the circuit under test, then open up the circuit at the point where you wish to measure current.
4. Touch the test lead probes in series with the circuit being measured. Touch the red probe to the positive side of the circuit and touch the black probe to the negative side of the circuit.
5. Apply power to the circuit.
6. Read the current on the LCD display.



4.4. FREQUENCY AND % DUTY CYCLE MEASUREMENTS

WARNING: Observe all safety precautions when working on live circuits.

1. Set the rotary function switch to the Hz % position.
2. To select Frequency or % Duty Cycle, press the MODE button until the "Hz" or "%" symbol appears on the LCD display.
3. Insert the black test lead into the COM input jack and the red test lead into the V input jack.
4. Touch the test lead probes to the circuit under test.
5. Read the frequency or % duty cycle on the LCD display.



4.5. RESISTANCE MEASUREMENTS

WARNING: Never test resistance on a live circuit.

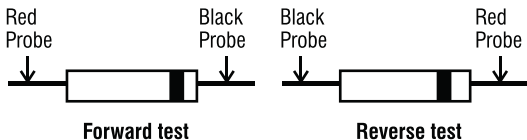
1. Set the rotary function switch to the Ω position.
2. Press the MODE button until the " Ω " symbol appears on the LCD display.
3. Insert the black test lead into the COM input jack and the red test lead into the Ω input jack.
4. Touch the test lead probes to the component under test. If the component is installed in a circuit, it is best to disconnect one side before testing to eliminate interference with other devices.
5. Read the resistance in on the LCD display.



4.6. DIODE TEST

WARNING: Never test diodes on a live circuit.

1. Set the rotary function switch to the Ω \rightarrow \rightarrow \rightarrow position.
2. Press the MODE button until the \rightarrow symbol appears on the LCD display.
3. Insert the black test lead into the COM input jack and the red test lead into the Ω input jack.
4. Touch the test lead probes to the component under test.
5. Forward voltage will indicate 0.4 to 0.7 on the display. Reverse voltage will indicate "OL". Shorted devices will indicate near 0 and an open device will indicate "OL" in both polarities.



4.7. CONTINUITY

WARNING: Never test continuity on a live circuit.

1. Set the rotary function switch to the Ω \rightarrow \rightarrow \rightarrow position.
2. Press the MODE button until the " \rightarrow " symbol appears on the LCD display.
3. Insert the black test lead into the COM input jack and the red test lead into the Ω input jack.
4. Touch the test lead probes to the device or wire under test.
5. A beeper will sound if the resistance is approximately 50 Ω or less and the resistance value will be shown on the LCD display.



4.8. CAPACITANCE MEASUREMENTS

WARNING: Safely discharge capacitors before taking capacitance measurements.

1. Set the rotary function switch to the Ω \rightarrow \rightarrow \rightarrow position.
2. Insert the black test lead into the COM input jack and the red test lead into the Ω input jack.
3. Press the MODE button until the "nF" symbol appears on the LCD display.
4. Touch the test lead probes to the capacitor under test.
5. Read the capacitance value on the LCD display. It may take up to a minute to get a stable reading on large capacitors.



4.9. TEMPERATURE MEASUREMENTS

WARNING: Do not touch the temperature probe to live circuits.

1. Set the rotary function switch to the $^{\circ}\text{C}$ $^{\circ}\text{F}$ position.
2. Press the MODE button to select readings in $^{\circ}\text{C}$ or $^{\circ}\text{F}$.
3. Connect the Temperature Probe to the Banana Plug Adapter. Note the - and + markings on the adapter. Connect the adapter to the meter, making sure the - side goes into the COM input jack and the + side goes into the $^{\circ}\text{F}$ $^{\circ}\text{C}$ input jack.
4. Touch the tip of the Temperature Probe to the object being measured. Keep the probe touching the object until the reading stabilizes (about 30 sec).
5. Read the temperature on the LCD display.



4.10. BATTERY REPLACEMENT

WARNING: To avoid electric shock, remove the test leads from the meter before removing the battery/fuse cover.

1. Lift up the tilt stand.
2. Loosen the two Phillips screws on the battery/fuse cover.
3. Remove the battery/fuse cover.
4. Replace the batteries with three AAA batteries.
5. Observe proper polarity as shown inside battery compartment.
6. Install the battery cover and tighten the screws.

WARNING: To avoid electric shock, do not operate meter until the battery/fuse cover is securely fastened to the meter.

4.10. FUSE REPLACEMENT

WARNING: To avoid electric shock, remove the test leads from the meter before removing the battery/fuse cover.

1. Lift up the tilt stand.
2. Loosen the two Phillips screws on the battery/fuse cover.
3. Remove the battery/fuse cover.
4. Gently remove fuse and install new fuse into the holder.
5. Always use a UL recognized fuse of the proper size and value:
10A/600V (5 x 20mm) fast blow.
6. Install the batter cover and tighten the screws.

WARNING: To avoid electric shock, do not operate meter until the battery/fuse cover is securely fastened to the meter.

5. SPECIFICATIONS

Accuracy is given at 18°C to 28°C (65°F to 83°F), less than 70% relative humidity.

5.1. AC VOLTAGE

Range	Resolution	Accuracy
4.000V	1mV	$\pm(1.0\% + 5)$
40.00V	10mV	$\pm(1.2\% + 5)$
400.0V	0.1V	$\pm(1.5\% + 5)$
600V	1V	

Input Protection: 600V DC or 600V AC RMS

Input Impedance: 10M Ω

AC Response: 50 to 60Hz

5.2. LOW Z AC VOLTAGE

Range	Resolution	Accuracy
4.000V	1mV	$\pm(1.5\% + 5)$
40.00V	10mV	
400.0V	0.1V	

All AC voltage ranges are specified from 5% of range to 100% of range

Input Protection: 400V DC or 400V AC RMS

Input Impedance: approx. 3k Ω

AC Response: 50 to 60Hz

5.3. DC VOLTAGE

Range	Resolution	Accuracy
400.0mV	0.1mV	$\pm(1.0\% + 8)$
4.000V	1mV	$\pm(1.0\% + 3)$
40.00V	10mV	
400.0V	0.1V	
600V	1V	$\pm(1.2\% + 3)$

Input Protection: 600V DC or 600V AC RMS

Input Impedance: 10M Ω

5.4. LOW Z DC VOLTAGE

Range	Resolution	Accuracy
400.0mV	0.1mV	$\pm(1.5\% + 5)$
4.000V	1mV	
40.00V	10mV	
400.0V	0.1V	

Input Protection: 400V DC or 400V AC RMS

Input Impedance: approx. 3k Ω

5.5. AC CURRENT

Range	Resolution	Accuracy
4.000A	1mA	$\pm(2.5\% + 3)$
10.00A	10mA	

Overload Protection: 10A/600V Fuse

AC Response: 50 to 60Hz

5.6. DC CURRENT

Range	Resolution	Accuracy
4.000A	1mA	$\pm(2.0\% + 3)$
10.00A	10mA	

Overload Protection: 10A/600V Fuse

5.7. RESISTANCE

Range	Resolution	Accuracy
400.0 Ω	0.1 Ω	$\pm(1.5\% + 5)$
4.000k Ω	1 Ω	
40.00k Ω	10 Ω	
400.0k Ω	100 Ω	
4.000M Ω	1k Ω	$\pm(2.0\% + 10)$
40.00M Ω	10k Ω	

Input Protection: 600V DC or 600V AC RMS

5.8. CAPACITANCE

Range	Resolution	Accuracy
40.00nF	10pF	$\pm(5.0\% + 35)$
400.0nF	100pF	$\pm(3.0\% + 5)$
4.000 μ F	0.001 μ F	
40.00 μ F	0.01 μ F	
400.0 μ F	0.1 μ F	
4000 μ F	1 μ F	$\pm(5.0\% + 5)$

Input Protection: 600V DC or 600V AC RMS

5.9. FREQUENCY

Range	Resolution	Accuracy
9.999Hz	0.001Hz	$\pm(1.0\% + 5)$
99.99Hz	0.01Hz	
999.9Hz	0.1Hz	
9.999kHz	1Hz	
99.99kHz	10Hz	
999.9kHz	100Hz	$\pm(1.2\% + 5)$
9.999MHz	1kHz	

Input Protection: 600V DC or 600V AC RMS

Sensitivity: >8V RMS

5.10. DUTY CYCLE

Range	Resolution	Accuracy
1.0% to 99.9%	0.1%	$\pm(1.2\% + 2)$

Input Protection: 600V DC or 600V AC RMS

Pulse Width: 0.1 to 100ms

Frequency Range: 5Hz to 10kHz

Sensitivity: >8V RMS

5.11. TEMPERATURE

Range	Resolution	Accuracy
-18°C to 760°C	0.1°C	$\pm (2.0\% + 5^\circ\text{C})$
0°F to 1400°F	0.1°F	$\pm (2.0\% + 9^\circ\text{F})$

Input Protection: 300V DC or 300V AC RMS



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