POWER PROBE®

Power Probe Tek

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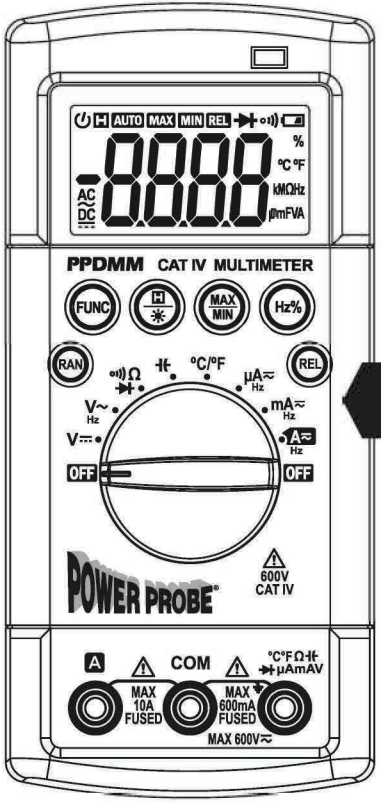
DIGITAL MULTIMETER



PPDMM

Intertek
5000815

CAT.IV
600V

Power Probe Tek

1. GENERAL SPECIFICATIONS

PPDMM is a stable, safe, reliable compact digital handheld 6000 count auto-ranging multimeter. This meter can measure AC/DC voltage, AC/DC current, resistance, capacitance, frequency, temperature, diodes and continuity. This meter is ideal for many situations, whether you're a professional or causal user.

- **Operating Altitude:** 2000m
- **Relative Humidity:** 75% max operating
- **Operating Temperature:** 0°C~40°C/32°F~104°F (<80% RH)
- **Storage Temperature:** -10°C~60°C/14°F~140°F (<70% RH)
- **Accuracy Temperature:** -18°C~28°C/64°F~82°F (<80% RH)
- **Temperature Coefficient:** 0.1x(specified accuracy)/°C (<18°C or >28°C)
- **Sampling Frequency:** approx. 3 times/sec.
- **Fuse Protection:** μA/mA input: F600mA/600V 10A input: F10A/600V

- **DC/AC Voltage:** 600V
- **DC/AC Current:** 10A
- **Resistance:** 60MΩ
- **Capacitance:** 60mF
- **Frequency:** 10kHz
- **Diodes:** 2.7V
- **Continuity:** <50Ω
- **Temperature:** -20°C~1000°C/-4°F~1832°F

- **LCD Display:** 3 ¾ digit display (6000 counts)
- **Product Supply:** 3×1.5V AAA batteries
- **Product Size:** 160mm×74mm×49mm / 6.3"×2.9"×1.9"
- **Product Weight:** 482g / 1.06lb
- **Safety Rating:** CAT IV 600V; pollution degree: II
- **Safety Standards:** IEC61010-1
- **Pollution Degree:** 2
- **Accuracy:** ±(of reading + # of least significant digits)

2. ⚠ WARNINGS

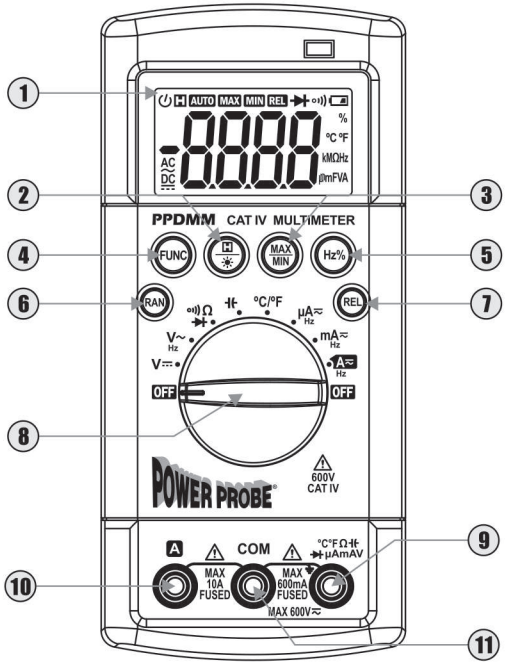
To avoid electric shock and injury or damage to the meter, observe the following safety methods:

- Check the meter before use to make sure there was no damage during transit.
- Check that the insulation on the test leads is not damaged and/or wires are not exposed.
- If any faults or abnormalities are observed, the meter should not be used and should be checked out prior to use.
- Never exceed the protection limit values indicated in specifications for each range of measurement.
- Always be careful when working voltages above 60V DC or 30V AC rms, keep fingers behind the probe barrier while measuring.
- Make sure the rotary switch is in the correct position before measurement.
- Never use the meter in an environment with explosive gas, vapor or dust.
- Always keep fingers behind probe barriers when making measurements.
- When connecting test leads to a circuit, connect the black test lead first, then the red lead. Disconnect in the opposite order.
- Turn off power and discharge all capacitors first before measuring resistance, continuity or diodes.
- Failure to follow safety guidelines could compromise the safety features of this meter.
- Do not use the meter without the battery cover in place.
- Replace the batteries as soon as the low battery symbol " ▭ " to avoid false reading that could lead to electric shock and injury.
- Remove test leads from all circuits before opening the battery cover.

3. SAFETY SYMBOLS

Important safety information	Ground
AC(alternating current)	Double insulation protection
DC(direct current)	Fuse
DC/AC Voltage or Current	Compliance with EU regulations

4. FEATURE DETAILS



1.LCD Display

2.Hold/Backlight Button

Press "☀" to hold the current reading on the display. Press the button again to release the hold Hold "☀" to turn on the backlight.
Hold the button again to manually turn off the backlight.

3.Max/Min Button

In all modes (except continuity, diode, capacitance), press "Max/Min" and the display will show the maximum value recorded since the button was pressed. Press the button again and the display will show the minimum value recorded. Pressing the button a third time will show the difference between the max and min value. Hold "Max/Min" to return the display to normal readings.

4.Function Switch Button

Press "**FUNC**" to switch between functions or between AC/DC current.

5.Frequency/Duty Cycle Button (Hz/%)

In AC voltage/current modes, press "Hz%" and the display will show the frequency measurement. Press the button again to switch to duty cycle. Press the button a third time to return to normal display.

6.Range Button

In voltage, current and resistance modes, the default range is auto.
To enter manual range, press "**RAN**". Each press of the button increases the range, and returns to the lowest range when pressed in the highest range. Hold "**RAN**" to return to auto range.
(Only auto range is available in capacitance mode)

7.Relative Measurement Button

In all modes (except resistance, continuity, diode), press "REL" and the display will show the relative value, i.e. the difference between the stored value when the button was pressed and the currently measured value. (REL = stored value – currently measured value) Press the button again to return the display to normal. (In REL mode, auto range is disabled)

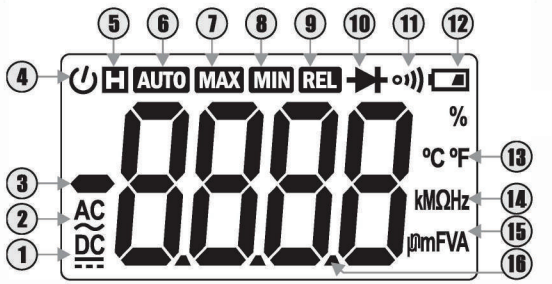
8.Rotary Switch

9.Input Jack (all measurements; current below 600mA)

10.A Jack (current measurements between 600mA-10A only)

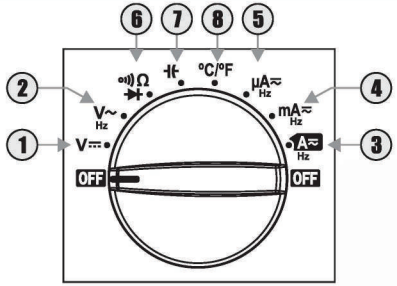
11.Common Jack (all measurements)

5. DISPLAY FUNCTION INSTRUCTIONS

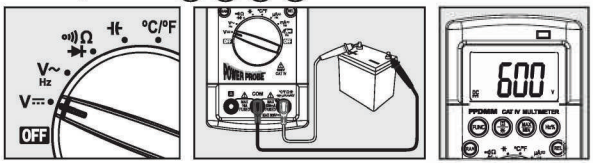


1	DC	Direct Current
2	AC	Alternating Current
3		Negative DC Value
4		Auto Power Off
5	H	Data Hold
6	AUTO	Auto Range Active
7	MAX	Maximum Display
8	MIN	Minimum Display
9	REL	Relative Display
10		Diode Test
11		Continuity Test
12		Low Battery
13	°C	Temperature in Celsius
13	°F	Temperature in Fahrenheit
14	kMΩ	Resistance
14	Hz	Frequency
15	µF	Capacitance
15	µmA	DC/AC Current
15	mV	DC/AC Voltage
16	▲	Main Display

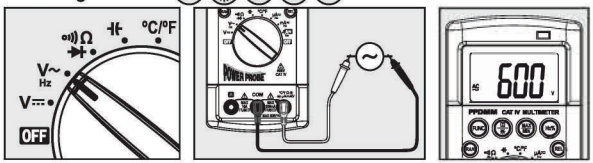
6. ROTARY SWITCH FUNCTION INSTRUCTIONS



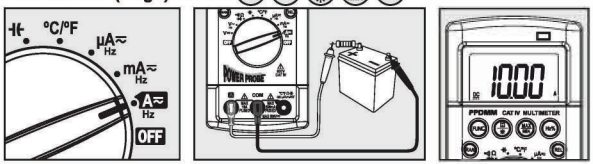
1. DC Voltage: <600V (RAN) (⊡) (MAX MIN) (REL)



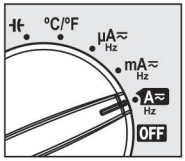
2. AC Voltage: <600V (RAN) (⊡) (MAX MIN) (Hz%) (REL)

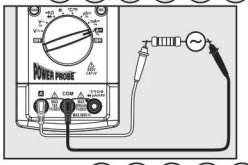


3.1 DC Current (large): <10A (RAN) (FUNC) (⊡) (MAX MIN) (REL)

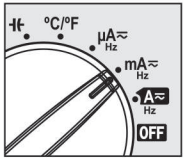


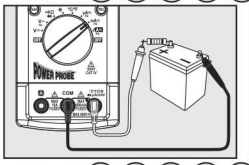
3.2 AC Current (large):<10A (RAN) (FUNC) (☼) (MAX MIN) (Hz%) (REL)



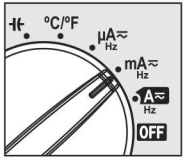


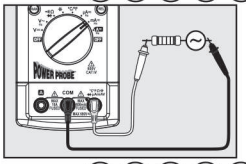
4.1 DC Current (Middle):<600mA (RAN) (FUNC) (☼) (MAX MIN) (REL)



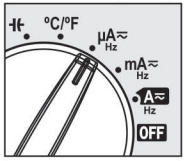


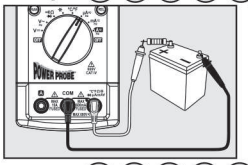
4.2 AC Current (Middle):<600mA (RAN) (FUNC) (☼) (MAX MIN) (Hz%) (REL)



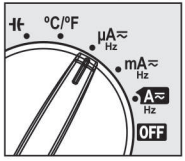


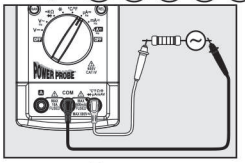
5.1 DC Current (Small):<6000μA (RAN) (FUNC) (☼) (MAX MIN) (REL)



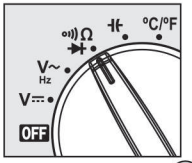


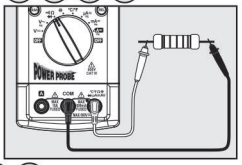
5.2 AC Current (Small):<6000μA (RAN) (FUNC) (☼) (MAX MIN) (Hz%) (REL)



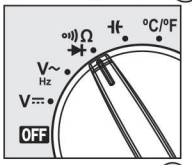


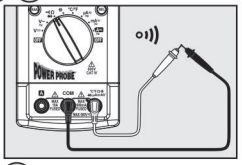
6.1 Resistance:<60MΩ (RAN) (FUNC) (☼) (MAX MIN)



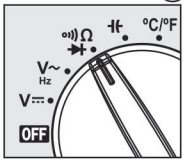


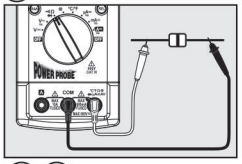
6.2 Continuity:<50Ω (FUNC) (☼)



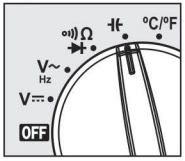


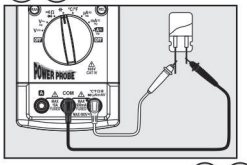
6.3 Diode Test:<1V (FUNC) (☼)



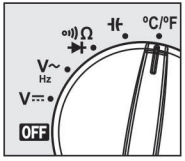


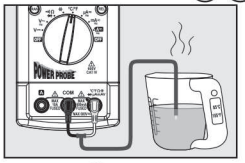
7. Capacitance: <60mF (☼) (REL)





8. Temperature: -20°C~1000°C/-4°F~1832°F (FUNC) (☼) (MAX MIN) (REL)





7. ELECTRICAL SPECIFICATIONS

DC Voltage Measurement		
Range	**Resolution**	**Accuracy**
600mV	0.1mV	±(0.5% of reading +2 digits)
6V	0.001V	
60V	0.01V	
600V	0.1V	

- **Input impedance: 10MΩ**
- **Max. input voltage: 600V rms**

AC Voltage Measurement		
Range	**Resolution**	**Accuracy**
600mV	0.1mV	±(1.0% of reading +5 digits)
6V	0.001V	
60V	0.01V	
600V	0.1V	

- **Input impedance: 10MΩ**
- **Max. input voltage: 600V rms**
- **Frequency response: 40~400Hz, calibrated to rms of sine wave (average response)**

DC Voltage Measurement		
Range	**Resolution**	**Accuracy**
600μA	0.1μA	±(1.0% of reading +5 digits)
6000μA	1μA	
60mA	0.01μA	
600mA	0.1μA	
10A	10mA	±(2.0% of reading +10 digits)

- **Overload protection: μA/mA input: Fuse(F600mA/600V) 10A input: Fuse (F10A/600V)**
- **Max. input current: μA/mA input: 600mA rms 10A input: 10A rms**

AC Voltage Measurement		
Range	**Resolution**	**Accuracy**
600μA	0.1μA	±(1.2% of reading +5 digits)
6000μA	1μA	
60mA	0.01μA	
600mA	0.1μA	
10A	10mA	±(2.5% of reading +10 digits)

- **Overload protection: μA/mA input: Fuse(F600mA/600V) 10A input: Fuse (F10A/600V)**
- **Frequency response: 40~400Hz, calibrated to rms of sine wave (average response)**
- **Max. input current: μA/mA input: 600mA rms 10A input: 10A rms**

Resistance Measurement		
Range	**Resolution**	**Accuracy**
600Ω	0.1Ω	±(0.8% of reading +5 digits)
6kΩ	0.001kΩ	
60kΩ	0.01kΩ	
600kΩ	0.1kΩ	
6MΩ	0.001MΩ	
60MΩ	0.01MΩ	±(2.0% of reading +5 digits)

- **Max. input voltage: 600V rms**

Continuity Test	
Overload Protection	**Open Circuit Voltage**
600V RMS	Appx. 3.0V

- **Max. input voltage: 600V rms**

Diode Test		
Overload Protection	**Test Current**	**Open Circuit Voltage**
600V RMS	Appx. 1mA	Appx. 3.0V DC

- **Max. input voltage: 600V rms**

Capacitance Measurement		
Range	**Resolution**	**Accuracy**
1nF	0.001nF	±(4.0% of reading +10 digits)
10nF	0.01nF	±(3.0% of reading +10 digits)
100nF	0.1nF	
1μF	1nF	
10μF	10nF	
100μF	100nF	
1mF	1μF	
10mF	10μF	±(4.0% of reading +10 digits)
60mF	10μF	

- **Max. input voltage: 600V rms**

Frequency (cont.) (AC voltage)		
Range	**Resolution**	**Accuracy**
99.99Hz	0.01Hz	±(1.5% of reading +5 digits)
999.9Hz	0.1Hz	
9.999kHz	0.001kHz	
>10kHz	0.01kHz	Reference only

- **Signal input range: ≥0.2V AC rms**
  (voltage input will increase as frequency increases)
- **Input impedance: 10MΩ**
- **Max. input voltage: 600V rms**

Frequency (AC current)		
Range	**Resolution**	**Accuracy**
99.99Hz	0.01Hz	±(1.5% of reading +5 digits)
999.9Hz	0.1Hz	
>1kHz	0.001kHz	Reference only

- **Signal input range: μA: ≥60μA rms mA: ≥6mA rms A: ≥0.6A rms**
  (current input will increase as frequency increases)
- **Max. input current: 10A rms**

Range	**Resolution**	**Accuracy**
-20°C~1000°C	1°C	±(2.0% of reading +3 digits)
-4°F~1832°F	1°F	

- **Overload protection: Fuse (F600mA/600V)**