4000P Series

USER'S Manual

PERSONAL POCKET DMM

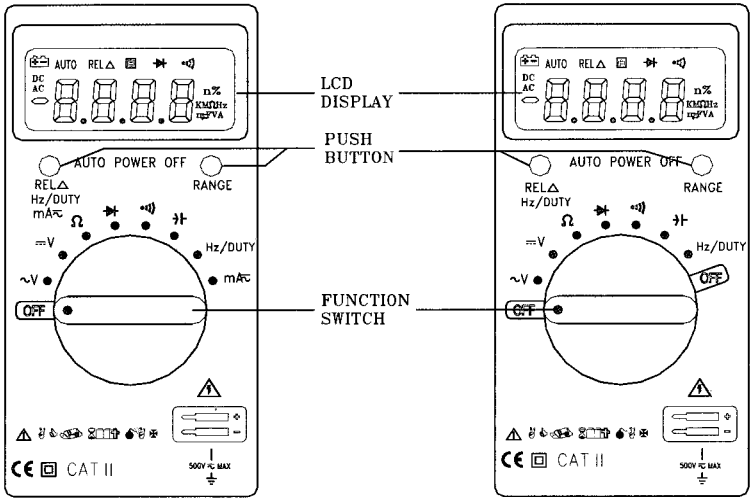
We thank you very much for your purchasing our PERSONAL POCKET DIGITAL MULTIMETER . These series products are most reliable , high-precision instruments, designed by our excellent technology .Before you use your new instrument , please read this ***USER'S MANUAL*** completely and familiarize you self thoroughly with all function and connections with proper use and care your digital multimeter will give you years of satisfactory service .

Safety rules

- Use the meter only as specified in this manual .
- Never measure voltage while the test leads are at the current test state.
- Do not use the meter if it looks damaged .
- Inspect the leads for damaged insulation or exposed metal , check test lead continuity .Replace damaged leads .
- Disconnect the power and discharge all high-voltage capacitors before testing in resistance, continuity, and diode function.
- Be Cautions when working above DC 60V or AC 42V, such voltages may cause a shock hazard .
- When making measurement , keep your fingers behind the guards plant on the probes.
- Select the proper function and range for measurement . To avoid damaging the meter, disconnect the test leads from test points before change function.

Push button

These Push Buttons for changing measurement functions .



Description of panel

- RANGE Press this button to change DCV, ACV, Ohm, DCmA and ACmA ranges.
- REL△

1.In DCV,ACV, Ohm, Capacitance measurement mode Press this button can make relative measurement. Rel△= measurement value - reference value.

2.In Hz./Duty measurement mode press this button can change "Hz" or "Duty" measurement .

3.In DCmA or ACmA measurement mode press this button can change DCmA or ACmA measurement.

Display

4000 counts digits Liquid Crystal Display (LCD) with decimal point and test unit signs .

Measuring method

DC / AC Voltage measurement

1. Set the rotary switch to " ⎓ V " or "~V "position .
2. Connect the test leads to the point to be measured , the range will automatically to the level that will display the input voltage with the best resolution .
3.The value indicated in the display screen is the measured value with proper decimal point and annunciation indication .

DCmA or ACmA current measurement

1. Set the rotary switch to " ⎓ mA " position.
2. Press REL△ /mA ⎓ button to select DCmA or ACmA measurement. mode.
3.Connect the test leads to the point to be measured, the range will automatically to the level that will display the input current with the best resolution .
4.The value indicated in the display screen is the

measured value with proper decimal point and annunciation indication .

Resistance measurement

⚠ Caution

Make sure all power is OFF in circuit to be measurement and all high-voltage capacitance discharged .

1. Set the rotary switch to " Ω " position .
2. Connect the test leads to the test point . The range will change automatically to proper range , the measuring resistance with the best resolution .
3.The value indicated in the display is the measured value of resistance with proper decimal point and annunciation indication .

Capacitance measurement

⚠ Caution

Make sure all power is OFF in circuit to be measured and all high-voltage discharged .

1. Set the rotary switch to " ⊣⊢ " position .
2.Touch the test leads to legs of capacitance to be measured , if the capacitance is a polarity , the red test lead to positive leg and the black test lead to the negative leg .
3.The range is automatically and the value indicated in the display is the measured value of the capacitance with proper decimal point and annunciation indication

.Frequency measurement

1. Set the rotary switch to "Hz /Duty" position .
2. Press **REL△/Hz/Duty** button to select "Hz" or "Duty" measurement mode.
3. Connect the test leads to the signal source to be measured , the range will change automatically .
4. The value indicated in the display is the measured frequency counter or cycle duty.
5. Sensitivity : 0.7V RMS.

Continuity check

1. Set the rotary switch to " •ıı)) " position .

2. Make sure all power is OFF and all high-voltage capacitance is discharged .
3.Touch the test leads to point and a beeper sounds when the resistance of the circuit to be measured is less than approx. 50 Ω .

Diode test

1. Set the rotary switch to " ⊣◀ " position .
2. Connect the test leads to the diode be tested . When measuring the forward voltage across diode , a good product is 0.3V to 0.8V, the reverse test leads is "OL" display , for short-circuited diode voltage is near 0mV and open-circuited at both direction are "OL" display

Specification

V dc	Range(V)	400m,4,40	400,600
	Accuracy	0.8% rdg +5d	1% rdg +5d
	Input Impedance	10MΩ	
	Max Input voltage	600V RMS	
V ac	Range(V)	400m	4,40,400,600
	Accuracy	1.8% rdg +5d	1.5% rdg +5d
	Input Impedance	10MΩ	
	Max Input voltage	600V RMS	
A dc	Range(mA)	40	400
	Accuracy	1.5% rdg +5d	1.2% rdg +5d
	Burden voltage	≤0.2V	≤2V
	Protection	500mA/250V	
A ac	Range(mA)	40	400
	Accuracy	2% rdg +5d	1.5% rdg +5d
	Input Impedance	≤0.2V	≤2V
	Max Input voltage	500mA/2500V	
Ohm (Ω)	Range(Ω)	400,4k,40k,400k,4M	40M
	Accuracy	1.5% rdg +5d	2.5% rdg +5d
	Max Input voltage	250V RMS	
Freq.	Range(Hz)	99.99Hz,999.9Hz,9.999kHz,99.99kHz, 999.9kHz,9.999MHz.	
	Accuracy	0.08% rdg +2d	
	Max Input voltage	250V RMS	
Duty Cycle	Range	1%~99%	
	Accuracy	0.8% rdg +2d	
	Max Input voltage	250V RMS	
Cap.	Range(F)	4nF,40μF,	40nF,400nF,4μF
	Accuracy	5% rdg +5d	2.5% rdg +5d
	Max Input voltage	250V RMS	
Cont.	Range(Ω)	400	
	Beeper	< 60Ω	
	Max Input voltage	250V RMS	
Diode	Range(V)	4	
	Max Input voltage	250V RMS	

Replacement of battery

1.To avoid false readings , if the " ▬ " sign appears on display , it shows battery is weak .
1. Turn the rotary switch to "OFF" position and remove the test leads from tested points .
2. Loosen screw on bottom cover , pull up and remove the cover .
3. Replace the defective battery .
Insert two pieces of same size battery into the battery case , making sure that proper polarity is observed .

Maintenance

To avoid electrical shock or damage to the meter , do not get water inside the case . Remove the test leads and any input signals before opening the case . If the meter fairs to operate , check battery , test leads , etc., and replace them if necessary . If the meter dos not work, please send it directly to our sales office or service office .

Features

Measuring method : △Σmode.
LCD Display : 4000 counts
Range : Auto or manual range.
Polarity: Automatic
Overrange indication: "OL"
Battery indication : " ▬ " when the battery voltage below 2.4V .
Auto power off : About 15 minute after the last operation was made .To bring back display please turn rotary switch more positions or push any button .
Operational temperature : 0℃ to 40℃, <75%RH .
Storage temperature : -20℃ to 60℃, <80%RH .
Power supply(3V) : Two 1.5V of battery .
Power consumption : 4.5mW(typical) .
Size : 80(W) ×120(H) ×19(D)mm .
Weight : Approx. 126g(Included Battery)