

# HOLDPEAK

## 4201

### INSTRUCTION MANUAL

We thank you very much for your purchasing our POCKET PERSONAL DIGITAL MULTIMETER. This model is a most reliable, high-precision instrument, designed by our excellent technology.

Before you use your new instrument, please read this Operators Manual completely and familiarize yourself Thoroughly with all functions and connections. With proper use and care your Digital Multimeter will give you years of satisfactory service.

#### SAFETY RULES

- \*Always check to make sure that the function switch is set to the proper position.
- \*When making measurements, CAUTION as dangerous voltages may be present in normally safe areas.
- \*Always disconnect the circuit under test prior to attaching test leads, as voltages may be present in capacitors even when the main power is disconnected.
- \*To avoid electrical shock, use CAUTION when working above 60V DC or 25V AC rms. Such voltages pose a shock hazard.
- \*Make sure all power (AC or DC) is disconnected (OFF) when making resistance (OHMS) measurements.
- \*Never make measurements with the battery cover of battery case OFF.
- \*Never fail to keep the maximum tolerable input.
- \*The POCKET PERSONAL DMM is designed for low voltage applications. The measurement should be limited to the circuit under 450V (AC/DC).
- \*Never use this meter if it is WET, DAMP or has condensation on it or the probes.
- \*When making measurements MAKE SURE your hands NEVER touch anything except the plastic part of the probes.

#### SPECIFICATIONS

Measuring method.....Dual integration mode  
 Display.....3-3/4 digit LCD max reading of approx 4000  
 Range.....Auto ranging  
 Polarity.....Automatic no indication for positive polarity, minus (-) sign for negative polarity  
 Overrange indication....."OL" mark indication (Except AC/DC 450V ranges)  
 Sampling.....2 times/s low battery indication  
 "⚡" mark is displayed when the battery voltage drops below operating voltage  
 Auto power off.....The meter is powered off 15 minute later after the last operation was made to bring back display, please turn the function switch to the off.  
 Operational temperature.....0~40°C, 80%RH(max.)  
 Storage temperature.....20~60°C, 70%RH(max.)  
 Power consumption.....6mW(TYP)  
 Size.....54(W)\*108(H)\*12(D)mm  
 Weight.....Approx 110g(included batteries and case)  
 Accessoires.....Batteries, LR-44(1.55V).....2  
                                   Hard cover case.....1  
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#### MEASUREMENT RANGES

Note/Accuracy specified for temperature range of 18°C~28°C (80%RH max)

DCV	Range	Resolution	Accuracy	input resistance	Max.Input	
	400mV	100uV	$\pm 1.3\%rdg\pm 2dgt$	>100M $\Omega$	Max,input: 250V DC or250V AC rms on 400mV range;450V DC or 450VAC rms on all other ranges.	
	4V	1mV		10M $\Omega$		
	40V	10mV				
	400V	100mV				
	450V	1V				
ACV (50/60HZ)	Range	Resolution	Accuracy	input resistance		
	4V	1mV	$\pm 2.3\%rdg\pm 5dgt$	10M $\Omega$		
	40V	10mv				
	400V	100mV				
	450V	1V				
OHM	Range	Resolution	Accuracy	Test current	Input protection	
	400 $\Omega$	100m $\Omega$	$\pm 2.0\%rdg\pm 5dgt$	<0.7mA	250V rms	
	4K $\Omega$	1 $\Omega$	$\pm 2.0\%rdg\pm 2dgt$	<0.13mA		
	40K $\Omega$	10 $\Omega$		<13A		
	400K $\Omega$	100 $\Omega$		<1.3A		
	4M $\Omega$	1K $\Omega$	$\pm 6.0\%rdg\pm 2dgt$	<0.13A		
	40M $\Omega$	10K $\Omega$	$\pm 10\%rdg\pm 5dgt$			
Continuity Check	Range	Resolution	Continuity beeper	Test current	Input protection	
	400 $\Omega$	100m $\Omega$	<approx,50 $\Omega$	<0.7mA	250V rms	

#### DESCRIPTION OF PANEL

Function switch.....

Switch for changing the measurement function.

( $\Omega$ / $\rightarrow$ ) for resistance, continuity check.

(VOLT) for voltage measurement

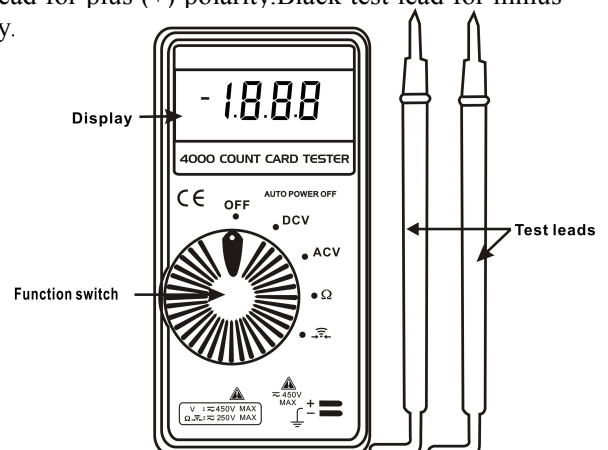
(OFF) for power OFF

Display.....

3-3/4 digit liquid crystal display from to approx. 4000 count with decimal point, annunciators display.

Test leads.....

Red test lead for plus (+) polarity. Black test lead for minus (-) polarity.



## PREPARATION AND CAUTION

### BEFORE MEASUREMENT

\*Before making measurements,install the batteries two LR-44 batteries can be used.

\*Avoid using the POCKET PERSONAL D.M.M.in places subject to high temperatures,humidity or excessive vibration.

\*Avoid using the POCKET PERSONAL D.M.M.in places with rapid temperature variations.

\*If the POCKET PERSONAL D.M.M.is used near noise generating equipment,be aware that the display may become unstable or indicate large errors.

\*If the function must be switched during a measurement,always remove the test leads from the circuit being measured.After measurement,set the function switch to "OFF"

### MEASURING METHOD

#### \*MEASUREMENT OF DC VOLTAGE (DC-V) (AUTO-RANGING)

(1)Set the function switch to "DCV".

(2)The "DC" mark will be displayed on the left side in the display.

(3)Connect the test leads to the circuit to be measured,the range will change automatically to the level that will display the input voltage with the best resolution.

(4)The value indicated in the display window is the measured value of voltage with proper decimal point and annunciator indication.

#### \*MEASUREMENT OF AC VOLTAGE (AC-V) (AUTO-RANGING)

(1)Set the function switch to "ACV".

(2)The "AC" mark is indicated on the left side in the display window.

(3)Connect the test leads to the circuit to be measured,the range will change automatically to the level that will display the input voltage with the best resolution.

(4)The value indicated in the display window is the measured value of voltage with proper decimal point and annunciator indication.

#### \*MEASUREMENT OF RESISTANCE ( $\Omega$ ) (AUTO-RANGING)

(1)Set the function switch to " $\Omega$ ".

(2)Make sure all power is OFF in the circuit to be measured.

(3)Connect the test leads to the circuit to be measured,the range will change automatically,and will hold on the range that will display the measures resistance with the best resolution.

(4)The value indicated in the display is the measured value of resistance with proper decimal point and annunciator indication.

#### \*MEASUREMENT OF CONTINUITY CHECK



(1)Set the function switch to " $\rightarrow \infty \leftarrow$ ".

(2)Make sure all power is OFF in the circuit to be

measured.

(3)Set the function switch to " $\rightarrow \infty \leftarrow$ " and the " $\rightarrow \infty \leftarrow$ " mark is indicated on the left side in the display.This is the continuity check mode.In continuity mode,a buzzer sounds when the resistance of the circuit to be measured is less than approx.50ohms.

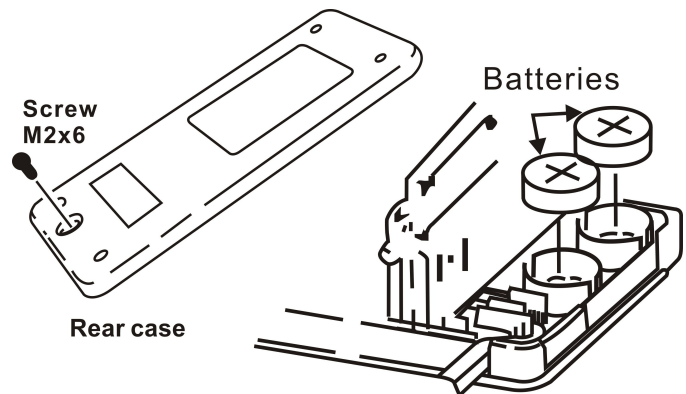
### REPLACEMENT OF BATTERY

(1)When the batteries becomes exhausted or drops below the operating voltage the "[+ -]" mark is displayed.

(2)Turn the function switch"OFF"and remove the test leads from all test circuit,prior to installing fresh batteries.

(3)Remove the batteries by using the tip of RED test probe.

(4)Insert the two LR-44 or SR-44 into the battery case making sure that proper polarity is observed.



#### Caution

Never use the BLACK test probe to avoid the short-circuit.

### MAINTENANCE

When making requests for repair service.Please bring the instrument directly to the dealer.If this is impossible,however,send the instrument directly to our sales office.When mailing this instrument,always pack it in its original or equivalent packing material and pack together with name,address,telephone number and the warranty documentation.

\*To ensure speedy and reliable repair,always include information as to the type of failure and cause.

\*If required,always return accessories with the instrument.

\*When contacting us,provide the model number of your instrument.



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