



An ISO 9001:2015 Company

# BATTERY QUALITY ANALYZER MODEL KM 900 SERIES

Single, Quick Testing  
Total Battery Quality Analysis Solution

Super Tool for UPS Battery field Management

Battery Health Analysis  
Testing at System Loading condition

Impedance, Voltage,  
Temperature, Current  
and Capacity measurements  
(simultaneously or independently)

User Friendly Software



Bluetooth



WIFI

Alternative Graphing Power

All Specifications are subject to change without prior notice.

## Measurement - Analysis

# High Performance Battery Quality Analyzer Data Logger with Trend Analysis

Abundant Data Logging and Accurate Trend Analysis is available backed by Internal SD Card stored up to 7.5 million data in Text or Graphic mode



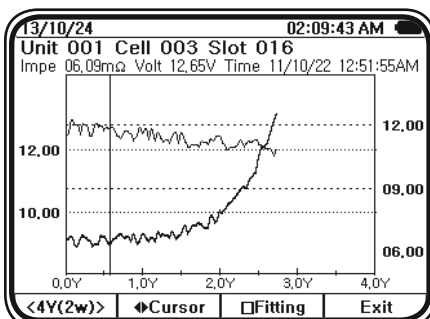
### Comparator settings :

Impedance / voltage High / Low limits.

### Comparator output :

LCD display of PASS, WARNING, or FAIL results and beeper for warning and fail results.

- The Battery Quality Analyzer is designed for measuring the internal resistance, open-circuit voltage, and terminal temperature of secondary batteries, including Lead Storage Cells (Lead -Acid batteries), nickel-cadmium batteries, lithium-ion batteries and nickel-metal hydride batteries.
- AC four-terminal method to measure the internal resistance by eliminating lead resistance and contact resistance to get the accurate results.
- Multiple display to show the internal resistance, voltage and temperature or voltage, current and temperature of the battery simultaneously.
- It has 99 sets of composite comparator function, which can be set at resistance and voltage values to get the reliable detection of battery deterioration.
- Pin type lead, which can easily contact the battery electrodes supplied as standard to get more accurate 4-terminal measurement.
- Clamp adaptor for DC current or AC current measurements.



Curve Trend Analysis

#	Ω	V	%	°C	Time
005	10.49mΩ	11.83V	-0.0	19.8	23:32:07
061	10.44mΩ	12.27V	-0.0	19.8	23:33:28
069	10.27mΩ	12.28V	-0.0	19.9	23:33:40
011	10.19mΩ	12.26V	-0.0	20.3	23:32:15
082	09.94mΩ	11.98V	-0.0	19.6	23:33:59
030	09.84mΩ	11.97V	-0.0	19.7	23:32:43

Distortion Order Table

**Help**  
**Impedance measurement**

- If press Resistance key, Resistance, Voltage and Temperature are measured simultaneously.
- If press  $\square$ , always enter Auto Ranging (40mΩ - 4 Ω)
- 4mΩ range is activated in Manual Ranging only - press  $\square$  to convert.
- If need to change Range in Manual Ranging from Auto ranging in 40mΩ - 4 Ω range, press  $\square$  and change Range with click sound. Each time key press changes Range resp 24/167

Help

### Applications :

Field Management of **UPS Back Up Batteries** in Industrial Systems-Telecom. Renewable Energy Power Plant (Solar, Water, Wind), Recreational, Marine, Airplane, Military, Electric Vehicle and Battery Related Industry (Manufacturer, Dealer) of most Batteries including Lead Storage Cells (Lead -Acid Batteries), nickel-cadmium batteries, lithium-ion batteries and nickel-metal hydride batteries.

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# Measurement - Analysis

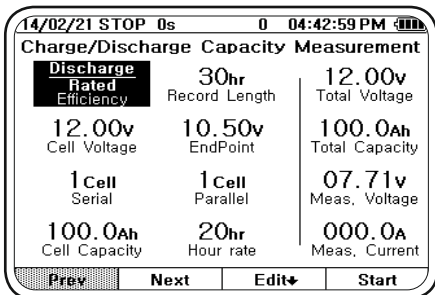
## Unsurpassed Performance in a portable, Compact package

Battery Health Analysis Information.  
 Comparator on Impedance, Voltage Auto Hold and Data Storage  
 Interface : USB Host / Client 2.0 Large 4" 320 x 240 pixel High Resolution Monochrome LCD display.

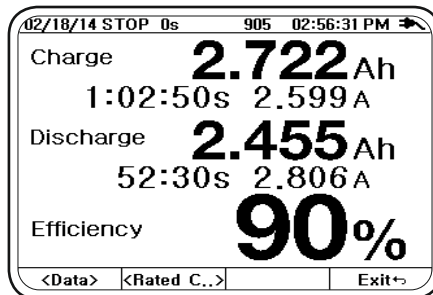
Super Tool in Field Measurements and Management of UPS batteries



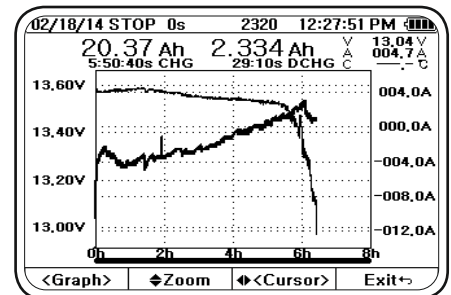
### Battery SOC, Capacity measurements (KM 900C only)



Capacity Measurement

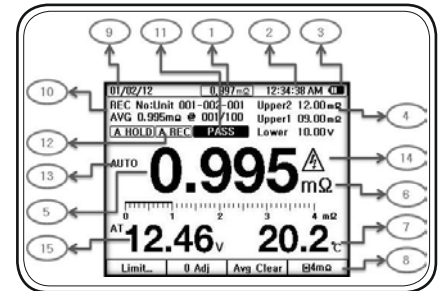
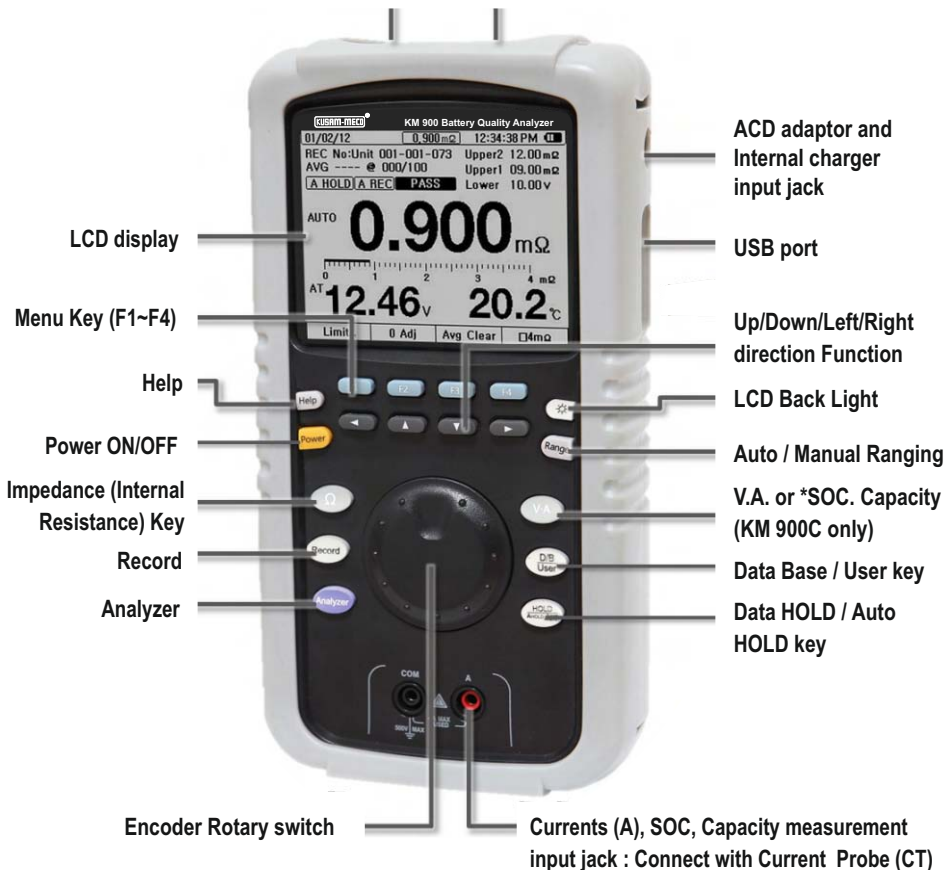


Capacity Measurement Data



Capacity Measurement Graph

Impedance, Volt,  
 Temperature measurement Input

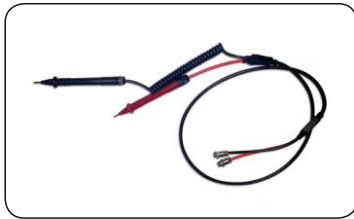


#### LCD Display :

- 1) Present Measurement Value when Auto Hold mode
- 2) Measurement Data and Time
- 3) Battery / Adapter Sign
- 4) Limit : Upper, Lower
- 5) Impedance Value Display
- 6) Unit of Measurement
- 7) Temperature Value Display
- 8) 4m Ω Convert key
- 9) "Unit-Cell-Times" display
- 10) Measurement AVERAGE and number of Averaged data (displayed with Auto Hold)
- 11) Limit (Comparator) Pass - Warning-Fail
- 12) Auto Saving : When Auto Holding, Auto Saving is automatically activated. Saved at Auto Record Memory in order, max 300 cells x 100 times measurement Record number : storage date Recording Number.
- 13) Auto : Auto, manual ranging
- 14) Warning Sign
- 15) DC Voltage measurement

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KM 900 series model selection		KM 900 (basic)	KM 900 (S version)	KM 900C
Impedance Measurement	4mΩ / 40mΩ / 400mΩ / 4Ω	✓	✓	✓
	Battery range	100V / 1200Ah	100V / 3000Ah	100V / 6000Ah
Voltage measurement	Range (300V DC)	✓	✓	✓
DC Current (Float Current) measurement with external CT	40A / 400A	✓	✓	✓
AC Current(Ripple Current) measurement with external CT	40A / 400A		✓	✓
Temperature	-10°C~100°C 14°F~212°F	✓	✓	✓
Capacity measurement	% SOC, Efficiency, Ah, Wh			✓
Analyzer		✓	✓	✓
Interface (USB 2.0) Standard		✓	✓	✓
Interface (Bluetooth / Wifi)		Option	Option	Option
Powerful Management Program		✓	✓	✓
Safety	CAT II 300V	✓	✓	✓



4 terminal Battery Test Lead  
(Pin type - Pin replaceable)



4 terminal Battery Test Lead  
(Clamp type)



Delivery Package

### **ELECTRICAL SPECIFICATIONS :**

- Impedance Measurement  
Range : 4mΩ ~ 4Ω (4 range)/1uΩ resolution  
Accuracy : ±0.8%rdg ±10dgts  
Battery range : max 100V, 1200Ah (model KM 900 basic)  
max 100V, 3000Ah (model KM 900 S version)  
max 100V, 6000Ah (model KM 900 C)
- Voltage Measurement : Differential Input  
Range : 4V, 40V, 300V (3 range)  
Accuracy : ±0.5%rdg ±5dgts
- DC Current(Float Current) Measurement CT  
Range : 40A / 400A  
Accuracy : ±1%rdg ±5dgts (CT Accuracy added)
- AC Current (Ripple Current) Measurement.  
CT \***KM 900 S version only**  
Range : 40A / 400A  
Accuracy : ±1%rdg ±5dgts (CT Accuracy added)
- Temperature  
Range : -10°C ~ 100°C / 14°F ~ 212°F  
Accuracy : ±2°C ±3.6°F  
Battery Temperature Measurement : Internal Sensor.  
Guaranteed Accuracy : 23°C +/-5°C, non-condensing
- Capacity Mesurement \***KM 900C only**
- % SOC, Efficiency, Ah, Wh  
Safety : CE Certified EMS. LVD 61010-1 CAT II 300V DC

### **GENERAL SPECIFICATIONS :**

- Display : 4" Graphic Monochrome LCD Module (320\*240)
- Input Method : Differential (Impedance, DC Voltage)
- Auto Power OFF : User Select at User mode
- Maxim Voltage Input : 300V DC
- Interface : USB 2.0 (Standard),  
Bluetooth (Option) Wi-Fi (Option)
- Operating Temperature : 0 ~ 40°C, 80% RH or Less
- Continuous Operating Time : 6 hours
- Power Supply : 7.2V, 2.7A NiMH Battery Pack (2)
- Line Power : 12V, 1A Adapter
- Dimensions : 107m (W) x 220mm (H) x 55mm(D)  
4.2"x 8.3"x 2.2"
- Weight (Main Unit only) : 1.2kg / 2.6 lbs

### **ACCESSORIES :**

4 Terminal Battery Test Lead set (Pin type),  
Ni-MH Rechargeable Battery Pack (installed),  
USB PC Interface Package (Program and User Manual in CD. USB Cable),  
Hardcopy User Manual, Ohm Adjustment Bar, ADC Power Adapter and Internal Charger,  
Carrying Bag with Shoulder Strip

### **OPTIONAL ACCESSORIES :**

4 Terminal Battery Test Lead (Clamp type),  
ADC Current Adapter

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