

B&K Precision Battery Testing and Component Testing Solutions



Battery Testing

Battery Test Software

Tool for charging and discharging batteries including sequencing and data logging.



Battery Testing software

- Pair of DC Power Supply and DC Electronic Load
- Tool for charging and discharging batteries including sequencing and data logging.

BK600/1/3B

- Testing solution for Sealed lead acid
- Capacity Analyzer
- 6 V / 12 V - up to 100 Ah

BA6010/1

- Testing solution for most type of batteries
- Frequency Analyzer at 1 kHz
- 6 V / 60 V, 30 V / 300 V

Battery Testing

Model	9200/9115 & 8600/8500B	603B	BA6010 & BA6011
Test method	Charge / Discharge Charge and discharge battery while logging results	DC Resistance Measure open and loaded battery voltage and calculate internal DC resistance	AC Impedance Uses a 1 kHz fixed frequency AC signal to calculate battery impedance
Result	V/I plots with calculated amp-hours (Ah)	Displays remaining capacity of lead-acid battery in % Internal battery resistance	Real-time display of voltage, impedance, phase angle and capacitance
Advantages	Measures actual capacity of a battery directly	Quick, easy and repeatable measurement, records battery measurements	Fast measurement speed. Ability to measure battery capacitance.
Disadvantages	Time consuming	Not suitable fo batteries over a 100 A	Individual battery model elements seen as one impedance value

Battery Test Software
Tool for charging and discharging batteries including sequencing and data logging



BA6010/1

BA6010/1

- measures voltage and internal resistance of modern battery technologies
- Plus:
 - Inductance (L)
 - Capacitance (C)
 - dissipation factor (D)
 - Impedance (Z)
 - quality factor (Q)
 - reactance (X)



BA6010/1

The **BA6010 Series** is suitable for characterizing battery chemistries that are responsive to a 1 kHz AC stimulus including:

- Lead acid
- Lithium and alkaline type batteries used in consumer products
- Electric vehicles
- Power backup, security, and fire alarm systems



BA6010/1

The typical application is to gather data to help in the evaluation of battery life cycle used in:

- Production
- Inspection
- Inventory
- Field



Statistics Display Screenshot:

Mode	NOMA	NOMB	STAT	Statis
ABS	0	0	ON	A
Number	Hi [Ω]	Lo [Ω]	\bar{X}	σ
1	0	0	17.388m	0.00n
s	Cp	CpK	Hi (num)	Lo (num)
0.00n	99.990	99.990	1	0
In (num)	Max	MaxIndex	Min	MinIndex
0	17.388m	1	17.388m	1

Control Bar: Statis START, TRIG

BA6010/1



BA6010 – 1200€



BA6011 – 1360€

Model	Input voltage range	Basic voltage accuracy	Voltage resolution
BA6010	6 V / 60 V	0.05 %	100 μ V
BA6011	30 V / 300 V	0.05 %	1 mV

BK60xB series

BK60xB series

- Dedicated for Sealed lead acid batteries technology
That are used in:



BK60xB series

BK60xB series

- Quickly after connecting you will get the following data:
 - open battery voltage
 - Battery voltage under load
 - state of charge (after indication of Ah)
 - internal resistance

```
<BATTERY QUICK TEST>
VO: 12.77   SOC: 90%
VL: 12.28
IR: 24mΩ   RS: N/A
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BK60xB series



BK60xB series



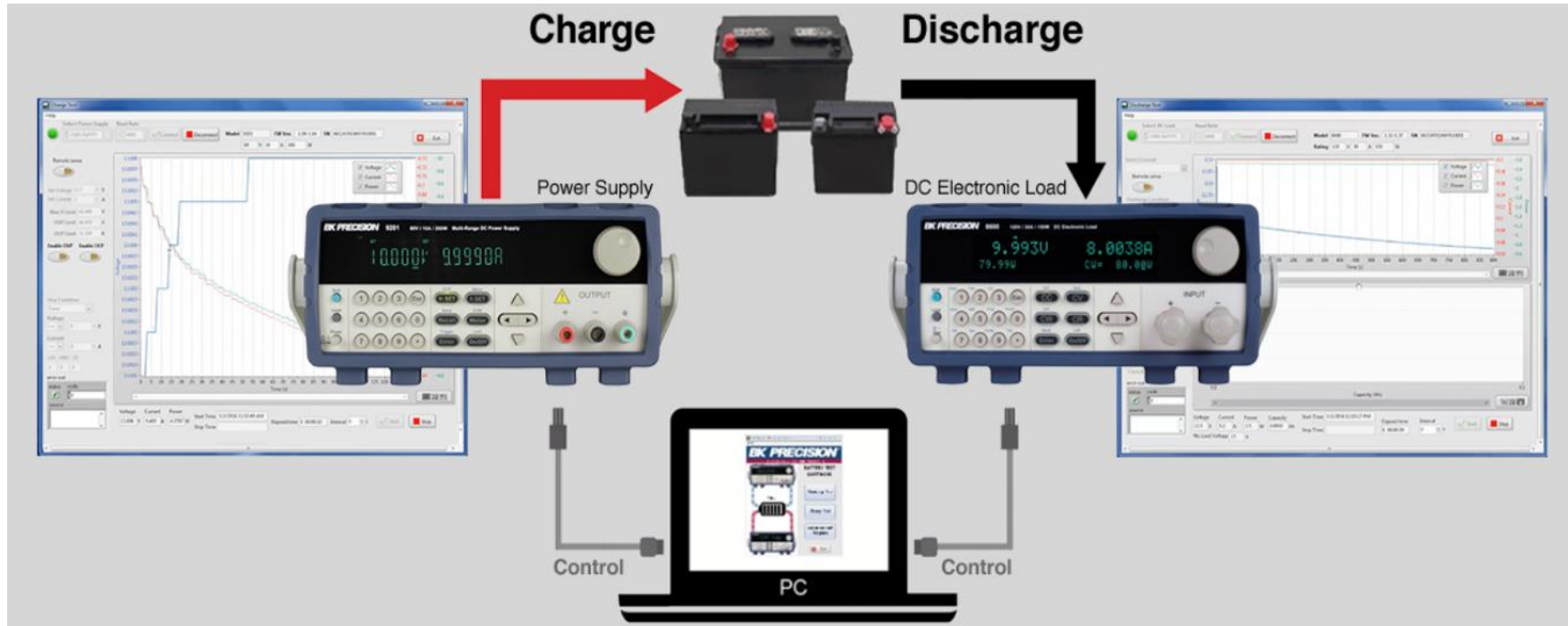
BK600B – 325€

BK601B – 460€

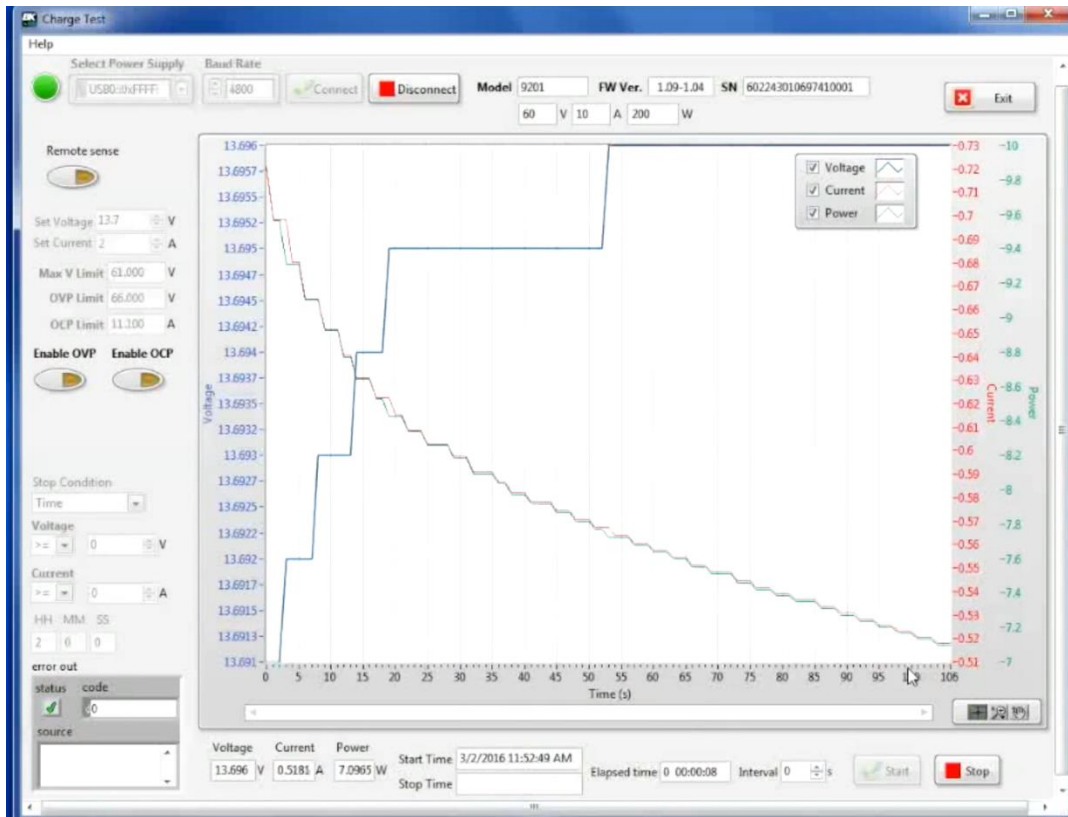
BK603B – 660€

Model	603B	601B	600B
Powered by battery under test	√	√	√
Test 6 and 12 volt batteries	√	√	12 V only
Instant on with voltage reading	√	√	√
Fast test cycle time	√	√	√
State of charge (SOC) %	√	√	√
Open and loaded voltage	√	√	-
Battery internal resistance (IR) test	√	√	-
Charger circuit test with open and loaded voltage	√	-	-
DC load test	√	-	-
Record mode for storing test configurations and results	√	-	-
Removable test leads	√	-	-

Battery Charge – Discharge Software



Battery Charge – Discharge Software



Key features:

- Charge / Discharge a battery
- Set stop conditions
- Create sequences
- Set battery protection parameters
- Log both charge and discharge data
- Calculate capacity in Ah
- Save and recall test files

Battery Charge – Discharge Software

DC POWER SUPPLY					DC ELECTRONIC LOAD				
BK9115	1200 W	80 V	60 A	1.860,00 €	BK8542B	150 W	150 V	30 A	870,00 €
BK9115-AT	1200 W	80 V	60 A	2.350,00 €	BK8500B	300 W	150 V	30 A	1.170,00 €
BK9116	1200 W	150 V	30 A	2.100,00 €	BK8502B	300 W	500 V	15 A	1.290,00 €
BK9117	3000 W	80 V	120 A	3.400,00 €	BK8510B	600 W	120 V	120 A	2.185,00 €
BK9201	200 W	60 V	10 A	690,00 €	BK8514B	1500 W	120 V	240 A	3.250,00 €
BK9202	360 W	60 V	15 A	885,00 €	BK8600	150 W	120 V	30 A	1.150,00 €
BK9205	600 W	60 V	25 A	1.360,00 €	BK8601	250 W	120 V	60 A	1.350,00 €
BK9206	600 W	150 V	10 A	1.525,00 €	BK8602	200 W	500 V	15 A	1.400,00 €
					BK8610	750 W	120 V	120 A	2.350,00 €
					BK8612	750 W	500 V	30 A	2.950,00 €
					BK8614	1500 W	120 V	240 A	3.700,00 €
					BK8616	1200 W	500 V	60 A	4.450,00 €
					BK8620	3000 W	120 V	480 A	7.500,00 €
					BK8622	2500 W	500 V	100 A	9.500,00 €
					BK8624	4500 W	120 V	600 A	12.000,00 €
					BK8625	6000 W	120 V	720 A	14.000,00 €

The software is free of charge and downloadable in B&K Precision website. All you need is a DC Power Supply from BK9115 or BK9200 series and a DC Electronic Load from the BK8500B or BK8600 series.

Component testers



Bench LCR meter

- Up to 1MHz

DC resistance Meters

- Minimum resolution of 0.1 μΩ

Handheld LCR and capacitance meters

Bench LCR Meters

BK891 - 1425€
300 kHz Test Frequency



BK894/BK895 - 3650€/5500€
500kHz/1MHz Test Frequency
Built-in DC Bias
Accuracy of 0,05%



DC Resistance Meter



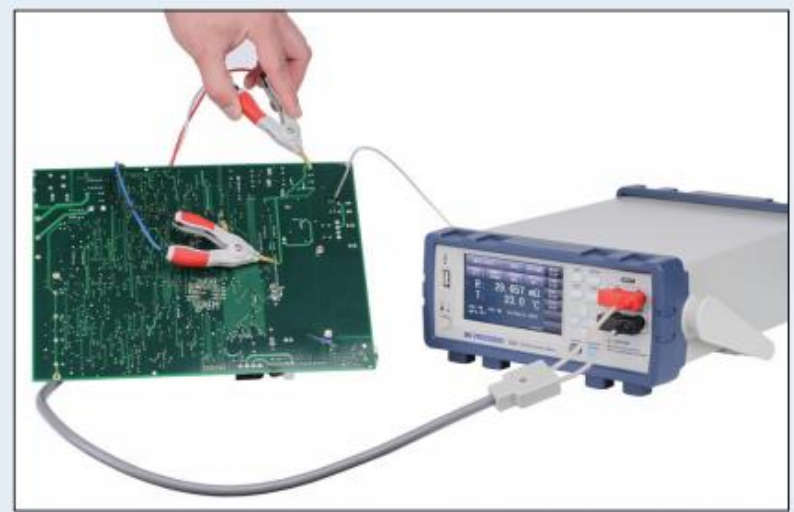
Applications

Component testing



Measure the resistance of motor and transformer windings, relay and switch contacts, and other conductive materials and components. 4-wire Kelvin test leads included with both models.

Circuit board testing



The resistance meters' high accuracy make them suitable for measuring trace resistances and finding shorts on PCBs.

DC Resistance Meter

BK2840 – 600€
 BK2841 – 1520€



Model	2840	2841
Display Range	1 $\mu\Omega$ to 20 k Ω	0.1 $\mu\Omega$ to 100 M Ω
Basic Accuracy	0.1%	0.01%
Measurement Resolution	1 $\mu\Omega$	0.1 $\mu\Omega$
Displayed Digits	4 1/2	5 1/2
Functions	R and LPR	R, R-T, T, LPR, LPR-T
Resistance Measurement Ranges	7 + Auto	11 + Auto
Temperature Compensation	-	√
Number of Results Bins	3	10

Handheld Capacitance meter

BK830C – 270€
BK890C – 150€

Model	830C	890C
Max. Range	199.99 mF	50.00 mF



Handheld LCR Meter

BK878B – 250€

BK879B – 300€

BK880 – 400€

Specifications	878B	879B	880
Measurements	L, C, R, D, Q	L, C, R, Z, D, Q, θ , ESR	L, C, R, Z, D, Q, θ , ESR & DCR
Basic Accuracy	0.5%	0.5%	0.1%
Test Frequency	120 Hz, 1 kHz	100 Hz, 120 Hz, 1 kHz, 10 kHz	100 Hz, 120 Hz, 1 kHz, 10 kHz, 100 kHz
Test Signal	0.6 Vrms	0.6 Vrms	0.3 Vrms, 0.6 Vrms, 1 Vrms DCR: 1 Vdc
Backlit Display	-	✓	✓
Auto Detect Mode	-	-	✓
Tolerance Mode	1%, 5%, 10%	1%, 5%, 10%, 20%	1%, 5%, 10%, 20%
Measurement Rate	1.5 readings/sec	1.5 readings/sec	4 readings/sec (fast), 1.5 readings/sec (slow)

